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LANASET® BLACK B GR

Version	Revision Date:	SDS Number:
1.1	06/24/2015	400001006407

SECTION 1. IDENTIFICATION

Product name	: LANASET® BLACK B GR
Manufacturer or supplier's o	letails
Company name of supplier	: Huntsman International LLC · P O Box 4980

Manufacturer or supplier's of	details	
Company name of supplier Address	 Huntsman International LLC P.O. Box 4980 The Woodlands, TX 77387 United States of America 	
Telephone	: Cust ser: (888) 514 4558	
relephone		
E-mail address of person responsible for the SDS	: MSDS@huntsman.com	
Emergency telephone	: Chemtrec: (800) 424-9300 or (703) 527-3887	
	C BL	
Recommended use of the chemical and restrictions on use		

Recommended use of the chemical and restrictions on use

Recommended use	

: Textile dyes, finishing and impregnating products; including bleaches and other processing aids

ECTION 2. HAZARDS IDENTIF	FICATION
GHS Classification	R Phil
Eye irritation	: Category 2A
Skin sensitization	: Category 1
Chronic aquatic toxicity	Category 2
GHS Label element Hazard pictograms	
Signal Word	: Warning
Hazard Statements	 H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary Statements	 Prevention: P280 Wear eye protection/ face protection. Recommended: Tightly fitting safety goggles P273 Avoid release to the environment. P261 Avoid breathing dust. P264 Wash hands thoroughly after handling.

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		 P272 Contaminated work clothing must not be allowed out of the workplace. Response: P391 Collect spillage. P302 IF ON SKIN: P352 Wash with plenty of soap and water. P362 Take off contaminated clothing and wash before reuse. P305 IF IN EYES: P337 If eye irritation persists: P313 Get medical advice/ attention. Storage: P422 Store contents under inert gas. Disposal: ENVT12 Dispose of waste product or used containers according to local regulations.
Other	r hazards	

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS chort

Substance / Mixture

: Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Chromate(2-), [N-(2-chlorophenyl)-2-[2-[2- (hydroxykappa.O)-5-nitrophenyl]diazenyl-	72403-66-8	>= 1 - <= 3
.kappa.N1]-3-(oxokappa.O)butanamidato(2-)][3-		
Chromate(2-), [1-[2-[2-(hydroxykappa.O)-3,5- dinitrophenyl]diazenylkappa.N1]-2- naphthalenolato(2-)kappa.O][3-(hydroxy- .kappa.O)	70236-55-4	>= 30 - <= 60
Chromate(3-), bis[3-(hydroxykappa.O)-4-[2-[2- (hydroxykappa.O)-1-naphthalenyl]diazenyl- .kappa.N1]-7-nitro-1-naphthalenesulfonato(57693-14-8	>= 30 - <= 60

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	 If breathed in, move person into fresh air. Keep respiratory tract clear. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician. If unconscious place in recovery position and seek medical advice.
In case of skin contact	: In case of skin contact



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		Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
In case	e of eye contact	 In case of eye contact Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
lf swal	lowed	: If swallowed Do not induce vomiting without medical advice. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
	mportant symptoms fects, both acute and d	: May cause an allergic skin reaction. Causes serious eye irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting	: No data is available on the product itself.
	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: No hazardous combustion products are known
A A A A A A A A A A A A A A A A A A A	No data is available on the product itself.
Specific extinguishing methods	: No data is available on the product itself.
Further information	 Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions,	: Use personal protective equipment.
protective equipment and	Avoid dust formation.
emergency procedures	Avoid breathing dust.

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Enviro	onmental precautions	 Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
	ods and materials for inment and cleaning up	: Keep in suitable, closed containers for disposal.
SECTION	7. HANDLING AND ST	ORAGE
	e on protection against nd explosion	: Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advic	e on safe handling	 Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Condi	itions for safe storage	 Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
Mater	ials to avoid	: No hazardous decomposition products are known.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters		
Personal protective equipment		
Respiratory protection	: P1 filter	
Hand protection Material Break through time	: Neoprene gloves : <1 h	
Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.	
Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles	



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		Wear face-shield and protective suit for abnormal processing problems.
Skin a	and body protection	: Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygie	ene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

CTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance	IICAL PROPERTIES : granules : black : odorless		
Color	: black		
Odor	: odorless		
Odor Threshold	: No data is available on the product itself.		
рН	: 7.5 - 8.5, Concentration: 1 g/l (20 °C)		
Flash point	: No data is available on the product itself.		
Evaporation rate	: No data is available on the product itself.		
Flammability (solid, gas)	: No data is available on the product itself.		
Burning rate	: Fire will spread by smoldering or slow decomposition.		
	Fire will spread by smoldering or slow decomposition.		
Upper explosion limit	: No data is available on the product itself.		
Lower explosion limit	: No data is available on the product itself.		
Vapor pressure	: No data is available on the product itself.		
Relative vapor density	: No data is available on the product itself.		
Relative density	: No data is available on the product itself.		
Density	: 0.69 g/cm3 (20 °C) Bulk density		
Solubility(ies) Water solubility	: >= 65 g/l (90 °C)		
Solubility in other solvents	: No data is available on the product itself.		
Partition coefficient: n-	: No data is available on the product itself.		
octanol/water Autoignition temperature	: No data is available on the product itself.		

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Deco	mposition temperature	: > 200 °C
Vis	scosity	: No data is available on the product itself.
Oxidi	zing properties	: None.
	Accelerating mposition temperature)T)	: No data is available on the product itself.
· ·	ct sensitivity	: Not impact sensitive.

SECTION 10. STABILITY AND REACTIVITY

20	CTION 10. STABILITY AND REACTIVITY			
	Reactivity:Chemical stability:Possibility of hazardous:reactions:	No decomposition if stored and applied as directed. No decomposition if stored and applied as directed. None known. Stable under normal conditions.		
		No decomposition if stored and applied as directed.		
		Dust may form explosive mixture in air.		
	Conditions to avoid :	None.		
		No data available		
	Hazardous decomposition : products	Stable under normal conditions.		

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	No data is available on the product itself.	
Acute toxicity			
Acute oral toxicity - Product	:	LD50 (Rat): > 5,000 mg/kg	
Acute inhalation toxicity - Product	:	Acute toxicity estimate: > 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method	
Acute dermal toxicity - Product	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method	
Acute toxicity (other routes of administration)	:	No data available	
Skin corrosion/irritation			

Product:

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Species: Rabbit Assessment: No skin irritation Result: No skin irritation

Serious eye damage/eye irritation

Product:

Species: Rabbit Result: Irritating to eyes. Assessment: Irritant

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitization

Product:

ntact. Routes of exposure: Skin Species: Guinea pig Assessment: May cause sensitization by skin contact. Method: OECD Test Guideline 406 Result: Causes sensitization.

Remarks: Causes sensitization.

Assessment:

No data available

Germ cell mutagenicity

Ingredients:

Chromate(3-), bis[3-(hydroxy-.kappa.O)-4-[2-[2-(hydroxy-.kappa.O)-1-naphthalenyl]diazenyl-.kappa.N1]-7-nitro-1-naphthalenesulfonato(: Genotoxicity in vitro

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: Not classified due to inconclusive data.

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative

Ingredients:

Chromate(3-), bis[3-(hydroxy-.kappa.O)-4-[2-[2-(hydroxy-.kappa.O)-1-naphthalenyl]diazenyl-.kappa.N1]-7-nitro-1-naphthalenesulfonato(: Genotoxicity in vivo

: Cell type: Somatic Application Route: Intraperitoneal injection Dose: 150 mg/kg Method: OECD Test Guideline 474 **Result:** negative

Carcinogenicity

No data available

Carcinogenicity -Assessment

: No data available

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Reproductive toxicity

Ingredients:

Chromate(3-), bis[3-(hydroxy-.kappa.O)-4-[2-[2-(hydroxy-.kappa.O)-1-naphthalenyl]diazenyl-.kappa.N1]-7-nitro-1-naphthalenesulfonato(: Effects on fetal development : Species: Rat, male and female Application Route: Oral

	Application Route: Oral General Toxicity Maternal: NOAEL (No observed adverse effect level): 1,000 mg/kg body weight Method: OECD Test Guideline 422 Result: No teratogenic effects.
ductive toxicity - sment	: No data available
single exposure	BL
a available	
repeated exposure	
•	
a available	
ted dose toxicity	e e e
ients:	
	appa.O)-4-[2-[2-(hydroxykappa.O)-1-naphthalenyl]diazenyl-

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Reproductive toxicity -Assessment

: No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Repeated dose toxicity

Ingredients:

Chromate(3-), bis[3-(hydroxy-.kappa.O)-4-[2-[2-(hydroxy-.kappa.O)-1-naphthalenyl]diazenyl-.kappa.N1]-7-nitro-1-naphthalenesulfonato(: Species: Rat NOAEL (No observed adverse effect level): 1000 mg/kg Application Route: Ingestion Exposure time: 672 h Method: Subacute toxicity

Repeated dose toxicity -Assessment

: No data available

Aspiration toxicity

No data available

Experience with human exposure

General Information:	No data available	

Inhalation:	No data available

No data available Skin contact:

No data available Eye contact:

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Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish - Product

EXAMPLE 203 MATION : LC50: 6 mg/l Exposure time: 48 h Method: OECD Test Guideline 203

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Ingredients:

Chromate(2-), [N-(2-chlorophenyl)-2-[2-[2-(hydroxy-.kappa.O)-5-nitrophenyl]diazenyl-.kappa.N1]-3-(oxo-.kappa.O)butanamidato(2-)][3-(: Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 2.3 mg/l aquatic invertebrates : Exposure time: 48 h

Method: OECD Test Guideline 202 GLP: yes

Chromate(2-), [1-[2-[2-(hydroxy-.kappa.O)-3,5-dinitrophenyl]diazenyl-.kappa.N1]-2naphthalenolato(2-)-.kappa.O][3-(hydroxy-.kappa.O): Toxicity to daphnia and other aquatic invertebrates EC50 (Daphnia magna (Water flea)): > 10 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

GLP: ves

Chromate(3-), bis[3-(hydroxy-.kappa.O)-4-[2-[2-(hydroxy-.kappa.O)-1-naphthalenyl]diazenyl-.kappa.N1]-7-nitro-1-naphthalenesulfonato(: Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 79 mg/l

aquatic invertebrates E

EC50 (Daphnia magna (Water flea)): 79 r Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202

Ingredients:

Chromate(3-), bis[3-(hydroxy-.kappa.O)-4-[2-[2-(hydroxy-.kappa.O)-1-naphthalenyl]diazenyl-.kappa.N1]-7-nitro-1-naphthalenesulfonato(: Toxicity to algae : ErC50: 103 mg/l Exposure time: 168 h Test Type: static test

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			Test substance: Fresh water Method: OECD Test Guideline 221
M-Fac toxicit	ctor (Acute aquatic y)	:	No data available
Toxici toxicit	ty to fish (Chronic y)	:	No data available
aquat	ty to daphnia and other ic invertebrates nic toxicity)	:	No data available No data available No data available IC50: > 300 mg/l Exposure time: 3 h No data available No data available
M-Fac toxicit	ctor (Chronic aquatic y)	:	No data available
Toxici	ty to bacteria - Product	:	IC50: > 300 mg/l Exposure time: 3 h
Toxici organ	ty to soil dwelling isms	:	No data available
Plant	toxicity	:	No data available
Sedim	nent toxicity	:	No data available
Toxici organ	ty to terrestrial isms	:	No data available
	xicology Assessment aquatic toxicity		No data available
Chron	ic aquatic toxicity	ż	No data available
Toxici	ty Data on Soil	P.	No data available
	organisms relevant to vironment	:	No data available
	er information: ta available		
Persi	stence and degradabil	ity	
Biode	gradability - Product	:	Biodegradation: ca. 40 % Exposure time: 28 d Method: OECD Test Guideline 302B
	emical Oxygen Ind (BOD) - Product	:	0 mgO2/g
	ical Oxygen Demand	:	950 mgO2/g
(COD BOD/) - Product COD	:	No data available
ThOD	•	:	No data available



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	BOD/T	hOD	:	No data available
	Dissolv (DOC)	ed organic carbon	:	No data available
	Physico remova	o-chemical bility	:	No data available No data available No data available No data available No data available
	Stability	y in water	:	No data available
	Photod	egradation	:	No data available
	Impact Treatm	on Sewage ent	:	No data available
	Bioacc	umulative potential		A ANT
	Bioaccu	umulation	:	No data available
	3-(oxo-	ate(2-), [N-(2-chlorophe .kappa.O)butanamidato n coefficient: n-	o(2-	2-[2-[2-(hydroxykappa.O)-5-nitrophenyl]diazenylkappa.N1]
	naphtha	alenolato(2-)kappa.O] n coefficient: n-	[3-(kappa.O)-3,5-dinitrophenyl]diazenylkappa.N1]-2- (hydroxykappa.O): log Pow: < 3 (20 °C) Method: No information available.
	.kappa.	N1]-7-nitro-1-naphthale n coefficient: n- /water		ppa.O)-4-[2-[2-(hydroxykappa.O)-1-naphthalenyl]diazenyl- esulfonato(: log Pow: -1.74 (20 °C)
	Mobilit	y in soil	7	
	Mobility		:	No data available
		ition among mental compartments	:	No data available
3	Stability	y in soil	:	No data available
/	Other a	adverse effects		
		mental fate and	:	No data available
	Results assess	s of PBT and vPvB ment	:	No data available
	Endocr potentia	ine disrupting al	:	No data available
	Adsorb	ed organic bound	:	.1 %



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	haloge	ns (AOX) - Product		Test substance: Chlorine
	Hazard	lous to the ozone lay	ər	
	Ozone	Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
		nal ecological ation - Product	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
	Global (GWP)	warming potential	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulation

ΙΑΤΑ

UN/ID No.	: UN 3077
Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (CHROMIUM COMPLEX MONOAZO DYESTUFF)
Class	: 9
Packing group	: 111
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 956
Packing instruction (passenger aircraft)	: 956

IMDG UN number

: UN 3077

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Prope	er shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CHROMIUM COMPLEX MONOAZO DYESTUFF)
Class		: 9
Packi	ng group	: III
Label	S	: 9
EmS	Code	: F-A, S-F
Marin	e pollutant	: yes
Trans	port in bulk accord	ing to Annex II of MARPOL 73/78 and the IBC Code
Not a	oplicable for product	as supplied.
	oplicable for product	: F-A, S-F : yes ing to Annex II of MARPOL 73/78 and the IBC Code as supplied.
Dome		as supplied.
Dome DOT	estic regulation	as supplied. : UN 3077
Dome DOT UN/IE	estic regulation	 : UN 3077 : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.
Dome DOT UN/IE Prope	estic regulation Classification D/NA number er shipping name	 : UN 3077 : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (CHROMIUM COMPLEX MONOAZO DYESTUFF)
Dome DOT UN/IE Prope	estic regulation Classification //NA number er shipping name	 : UN 3077 : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (CHROMIUM COMPLEX MONOAZO DYESTUFF) : 9
Dome DOT UN/IE Prope Class Packi	estic regulation Classification D/NA number er shipping name	 : UN 3077 : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (CHROMIUM COMPLEX MONOAZO DYESTUFF) : 9 : III
Dome DOT UN/IE Prope	estic regulation Classification D/NA number er shipping name	 : UN 3077 : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (CHROMIUM COMPLEX MONOAZO DYESTUFF) : 9
Dome DOT UN/IE Prope Class Packi	estic regulation Classification //NA number er shipping name ng group s	 : UN 3077 : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (CHROMIUM COMPLEX MONOAZO DYESTUFF) : 9 : III

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 311/312 Hazards

Acute Health Hazard Acute Health Hazard

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR

61):

Chromate(2-), [1-[2-[2-(hydroxy-.kappa.O)-3,5dinitrophenyl]diazenyl-.kappa.N1]-2naphthalenolato(2-)-.kappa.O][3-(hydroxy-.kappa.O) 70236-55-4

32.215 %

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	Chromate(3-), b (hydroxykappa [2-(hydroxykap naphthalenyl]dia .kappa.N1]-7-ni	.O)-4-[2- ppa.O)-1- izenyl- ro-1-	31.58 %	
	naphthalenesulf Chromate(2-), [l chlorophenyl)-2 (hydroxykappa nitrophenyl]diaz .kappa.N1]-3-(o .kappa.O)butan 2-)][3-(N-(2- [2-[2- O)-5- enyl- xo-	2.05 %	C INCE 19
SOCI	product does not con Al Intermediate or Fin	nal VOC's (40 CFR 60.4	d under the U.S. Clean Air Act 89).	t Section 111
Penns	sylvania Right To K			
	3,5-dinitro	:(2-), [1-[2-[2-(hydroxyl pphenyl]diazenylkappa nolato(2-)kappa.O][3-	.N1]-2- (hydroxy-	30 - 50 %
	[2-[2-(hyd naphthale	e(3-), bis[3-(hydroxyka roxykappa.O)-1- enyl]diazenylkappa.N1 enesulfonato(30 - 50 %
	Sulfuric a	cid sodium salt (1:2)	7757-82-6	20 - 30 %
Califo	ornia Prop 65		es not contain any chemicals nia to cause cancer, birth, or a fects.	
Thai	ngredients of this p	roduct are reported in	the following inventories:	
ine li			y, or in compliance with the in	
TSCA			y, or in compliance with the ir	ventory
TSCA DSL				
TSCA		On the inventorNot in compliar	y, or in compliance with the in ice with the inventory	
TSCA DSL AICS		 On the inventor Not in complian LANASET® BL 	y, or in compliance with the in ice with the inventory	
TSCA DSL AICS ENCS ISHL		 On the inventor Not in complian LANASET® BL Not in complian LANASET® BL 	y, or in compliance with the in ice with the inventory ACK B BPG ice with the inventory ACK B BPG	
TSCA DSL AICS ENCS		 On the inventor Not in complian LANASET® BL Not in complian LANASET® BL ANASET® BL Not in complian Not in complian 	y, or in compliance with the in ice with the inventory ACK B BPG ice with the inventory ACK B BPG ice with the inventory	
TSCA DSL AICS ENCS ISHL	R FIB	 On the inventor Not in compliar LANASET® BL Not in compliar LANASET® BL CANASET® BL Not in complian LANASET® BL 	y, or in compliance with the in ice with the inventory ACK B BPG ice with the inventory ACK B BPG ice with the inventory	oventory
TSCA DSL AICS ENCS ISHL KECI	R FIR	 On the inventor Not in complian LANASET® BL Not in complian LANASET® BL Not in complian Not in complian LANASET® BL On the inventor 	y, or in compliance with the in ice with the inventory ACK B BPG ice with the inventory ACK B BPG ice with the inventory ACK B BPG	iventory

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)

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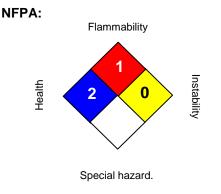
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SECTION 16. OTHER INFORMATION

Further information



HMIS III:

 HEALTH
 2

 FLAMMABILITY
 1

 PHYSICAL HAZARD
 0

 0 = not significant, 1 =Slight,

 2 = Moderate, 3 = High

 4 = Extreme, * = Chronic

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While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE. THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

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SECTION 1. IDENTIFICATION

Product name	: LANASET® BROWN B
Manufacturer or supplier's d	letails
Company name of supplier Address	 Huntsman International LLC P.O. Box 4980 The Woodlands, TX 77387 United States of America
Telephone	: Cust ser: (888) 514 4558
E-mail address of person responsible for the SDS	: MSDS@huntsman.com
Emergency telephone	: Chemtrec: (800) 424-9300 or (703) 527-3887

9+

Recommended use of the chemical and restrictions on use

Recommended use

: Textile dyes, finishing and impregnating products; including bleaches and other processing aids

CTION 2. HAZARDS IDENTIFICATION			
GHS Classification	PP ¹		
Skin sensitization	: Category 1		
Chronic aquatic toxicity	: Category 2		
GHS Label element Hazard pictograms			
Signal Word	: Warning		
Hazard Statements	: H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.		
Precautionary Statements	 Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P272 Contaminated work clothing must not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and wate P333 + P313 If skin irritation or rash occurs: Get medical advia attention. 		



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		P391 Collect s Disposal:	-	efore reuse. to an approved waste
••	r hazards known.			CO.
	3. COMPOSITION/I ance / Mixture	NFORMATION ON ING	REDIENTS	S SINCE
Subst				S SINCE
Subst	ance / Mixture		CAS-No.	Concentration (%)
Subst Haza	ance / Mixture rdous ingredients			Concentration (%)
Subst Hazar Chem paraff disodi nitrop	ance / Mixture rdous ingredients nical Name fin oils ium [2,4-dihydro-4-[(henyl)azo]-5-methyl	: Mixture	CAS-No.	

 $\langle \cdot \rangle$

SECTION 4. FIRST AID MEASURES	
General advice :	Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	If inhaled Move to fresh air. Keep respiratory tract clear. If symptoms persist, call a physician.
In case of skin contact :	In case of skin contact Wash off with soap and plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
In case of eye contact :	In case of eye contact Flush eyes with water as a precaution. Remove contact lenses. If eye irritation persists, consult a specialist.
If swallowed :	If swallowed Do not induce vomiting without medical advice. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
Most important symptoms : and effects, both acute and	May cause an allergic skin reaction.

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delayed

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	No data is available on the product itself.
		Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	No hazardous combustion products are known
		No data is available on the product itself.
Specific extinguishing methods	:	No data is available on the product itself.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters		Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Environmental precautions	 Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion		Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Avoid formation of respirable particles.

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		For personal p Smoking, eating application are Dispose of ring regulations. Persons susce allergies, chro	with skin and eyes. protection see section 8. ng and drinking should be prohibited in the
Co	nditions for safe storage	place. Containers wh kept upright to Electrical insta	er tightly closed in a dry and well-ventilated nich are opened must be carefully resealed and prevent leakage. allations / working materials must comply with cal safety standards.
Ma	terials to avoid	: No hazardous	decomposition products are known.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

CAS-No.	Value type	Control	Basis
	(Form of	parameters /	
	exposure)	Permissible	
	• •	concentration	
8012-95-1	TWA (Mist)	5 mg/m3	OSHA Z-1
	TWA	5 mg/m3	ACGIH
K-	(Inhalable	•	
	fraction)		
64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
	× ,	Ū	
	TWA	5 mg/m3	ACGIH
	(Inhalable	-	
	fraction)		
	8012-95-1	(Form of exposure) 8012-95-1 TWA (Mist) TWA (Inhalable fraction) 64742-54-7 TWA (Mist) TWA (Inhalable	(Form of exposure)parameters / Permissible concentration8012-95-1TWA (Mist)5 mg/m3TWA (Inhalable fraction)5 mg/m364742-54-7TWA (Mist)5 mg/m3TWA (Inhalable fraction)5 mg/m3TWA (Inhalable fraction)5 mg/m3

Personal protective equipment	
Respiratory protection :	No personal respiratory protective equipment normally required.
Hand protection	
Material :	Gloves
Remarks :	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection :	Eye wash bottle with pure water Tightly fitting safety goggles.
Skin and body protection :	Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures : Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Appearance	:	granules
	Color	:	black
	Odor	:	odorless
	Odor Threshold	:	granules black odorless No data is available on the product itself.
	рН	:	9 - 10, Concentration: 20 g/l
	Flash point	:	No data is available on the product itself.
	Evaporation rate	:	No data is available on the product itself.
	Flammability (solid, gas)	:	No data is available on the product itself.
	Burning rate	:	Product resists ignition and does not promote flame spread.
			Product resists ignition and does not promote flame spread.
	Upper explosion limit	:	No data is available on the product itself.
	Lower explosion limit		No data is available on the product itself.
	Vapor pressure	:	No data is available on the product itself.
	Relative vapor density	Ś	No data is available on the product itself.
	Relative density	:	No data is available on the product itself.
	Density	:	0.98 g/cm3
- F	OF		Bulk density
3	Solubility(ies) Water solubility	:	100 g/l (30 °C)
	4PT 2		
	Solubility in other solvents	:	No data is available on the product itself.
	Partition coefficient: n- octanol/water	:	No data is available on the product itself.
	Autoignition temperature	:	No data is available on the product itself.
	Decomposition temperature	:	> 200 °C
	Viscosity	:	No data is available on the product itself.
	Oxidizing properties	:	None.
	Self-Accelerating	:	No data is available on the product itself.

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	mposition temperature	9				
(SADT) Impact sensitivity		: Not impact se	: Not impact sensitive.			
SECTION	10. STABILITY AND	REACTIVITY				
Reactivity Chemical stability			ition if stored and applied as directed.			

Chemical stability Possibility of hazardous reactions	 No decomposition if stored and applied as directed. No decomposition if stored and applied as directed. Do not mix with reducing agents. Stable under normal conditions.
	No decomposition if stored and applied as directed.
	Dust may form explosive mixture in air.
Conditions to avoid	: None.
	No data available
Hazardous decomposition products	: Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : exposure	No data is available on the product itself.
Acute toxicity Acute oral toxicity - Product :	LD50 (Rat): > 5,000 mg/kg

	150
Ingredients: paraffin oils:	PL
Acute inhalation toxicity	: LC50 (Rat): 2,062 mg/l
	Exposure time: 4 h Test atmosphere: dust/mist

Acute dermal toxicity	: No data available
Acute toxicity (other routes of administration)	: No data available

Skin corrosion/irritation

Product:

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Species: Rabbit Assessment: No skin irritation Result: No skin irritation

Remarks: May cause skin irritation and/or dermatitis.

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Seric	ous eye damage/eye irr	itation	
Prod	uct:		
Spec	ies: Rabbit		
	It: No eye irritation		
Asse	ssment: No eye irritation		
Rema	arks: Product dust may b	be irritating to eyes, s	skin and respiratory system.
Resp	iratory or skin sensitiz	ation	
Prod	uct:		
Route	es of exposure: Skin		
Spec	ies: Guinea pig		
	od: OECD Test Guidelin	e 406	
Resu	It: Causes sensitization.		
Rem	arks: Causes sensitizatio	n	
Rom			
Asse	ssment:	No data available	
Gern	n cell mutagenicity		
Geno	otoxicity in vitro	: No data availat	ble
Cana		. No data susilak	
Gend	otoxicity in vivo	: No data availat	
0			
	inogenicity		
NO da	ata available	R.	
Carci	nogenicity -	: No data availat	ble
	ssment		
IARC		Group 1: Carcinog	jenic to numans
1		paraffin oils	
ACG	iH	Suspected humar	carcinogen
	2.4	paraffin oils	
		paramirono	
OSH	A		nis product present at levels greater than or
			lentified as a carcinogen or potential
/ 7		carcinogen by OS	HA.
NTP	,	Known to be hum	an carcinogen
,			
		paraffin oils	
_			
	oductive toxicity		
Effec	ts on fertility	: No data availat	ble

: No data available

Reproductive toxicity -

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ersion .1	Revision Date: 08/14/2015	SDS Number: 400001005639	Date of last issue: 08/12/2015 Date of first issue: 08/12/2015
Asse	ssment		
STO	T-single exposure		
No da	ata available		
STO	T-repeated exposu	ire	
No da	ata available		
-	eated dose toxicity	,	
No d	ata available		S SIN
	eated dose toxicity - ssment	: No data availal	ble CLOTHING BLANKS SINCE
Aspi	ration toxicity		all h
No d	ata available		C C
Expe	erience with huma	n exposure	
Gene	eral Information:	No data available	0
Inhal	ation:	No data available	C [*]
Skin	contact:	No data available	
Eye	contact:	No data available	
Inges	stion:	No data available	
		2 P'	
	cology, Metabolisı	n, Distribution	
No di	ata available		
Neur	ological effects		
	ata available		
	AB		
Furti	ner information		
Prod			
Rem	arks: No data availa	able	

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish - Product

: LC50: 5 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

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Ingredients:

)][3-hydr Toxicity	oxy-4-[(2-hydroxy-1-nap	зh	xy-5-nitrophenyl)azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2- thyl): EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: no
hydroxyt Toxicity	benzenesulphonato(3-)]	[1	I-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]-4- -[[2-hydroxy-5-(phenylazo)ph: EC50 (Daphnia magna (Water flea)): 15.6 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes
Toxicity	to algae	:	No data available
M-Facto toxicity)	r (Acute aquatic	:	No data available
Toxicity toxicity)	to fish (Chronic	:	No data available
aquatic i	to daphnia and other invertebrates toxicity)	:	No data available
M-Facto toxicity)	r (Chronic aquatic		No data available
Toxicity	to bacteria - Product	NY.	IC50: > 300 mg/l Exposure time: 3 h
Toxicity organism	to soil dwelling ns	:	No data available
Plant tox	kicity	:	No data available
Sedimer	nt toxicity	:	No data available
Toxicity organisn		:	No data available
	ology Assessment quatic toxicity	:	No data available
Chronic	aquatic toxicity	:	No data available
Toxicity	Data on Soil	:	No data available
Other or the envir	0	:	No data available
	nformation: available		

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/ersion	Revision Date:	SDS Number:	Date of last issue: 08/12/2015
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Persi	stence and degradabil	ity	
Biode	gradability - Product	: Biodegradation Exposure time Method: OECI	
	emical Oxygen and (BOD) - Product	: 15 mgO2/g	C
	nical Oxygen Demand	: 1120 mgO2/g	
(COD BOD/) - Product COD	: No data availa	ble
ThOD)	: No data availa	ble
BOD/	ThOD	: No data availa	ble
Disso (DOC	lved organic carbon	: No data availa	28 d D Test Guideline 302B ble ble ble
	co-chemical vability	: No data availa	ble
Stabil	ity in water	: No data availa	ble
Photo	odegradation	: No data availa	ble
Impao Treat	ct on Sewage ment	: No data availa	ble
Bioad	cumulative potential	~~~	
Bioac	cumulation	: No data availa	ble
Ingre	<u>dients:</u>		
)][3-h Partit	ium [2,4-dihydro-4-[(2-hy ydroxy-4-[(2-hydroxy-1-r ion coefficient: n- ol/water		l)azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2
hydro Partiti	ium [3-[(4,5-dihydro-3-m xybenzenesulphonato(3 ion coefficient: n- ol/water	-)][1-[[2-hydroxy-5-(: log Pow: < 3 (2	
Mobi	lity in soil		
Mobil	•	: No data availa	ble
	oution among onmental compartments	: No data availa	ble

Stability in soil : No data available

Other adverse effects

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Envir pathv	onmental fate and vays	: No data availa	ble
	lts of PBT and vPvB ssment	: No data availa	
Endo poter	crine disrupting ntial	: No data availa	ble
	rbed organic bound gens (AOX) - Product	: 0%	
Haza	rdous to the ozone lag	/er	
Ozon	e-Depletion Potential	Protection of S Substances Remarks: This manufactured	CFR Protection of Environment; Part 82 stratospheric Ozone - CAA Section 602 Class I product neither contains, nor was with a Class I or Class II ODS as defined by the Act Section 602 (40 CFR 82, Subpt. A, App.A +
	ional ecological nation - Product	unprofessional	ntal hazard cannot be excluded in the event of handling or disposal. ic life with long lasting effects.
Globa (GWI	al warming potential P)	: No data availa	ble

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	15
Waste from residues	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging :	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulation

ΙΑΤΑ	
UN/ID No.	: UN 3077
Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (MONOAZO METAL COMPLEX DYESTUFF)
Class	: 9



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rsion I	Revision Date: 08/14/2015	SDS Number: 400001005639	Date of last issue: 08/12/2015 Date of first issue: 08/12/2015
Packi	ng group	: 111	
Label		: Miscellaneous	
Packi aircra	ng instruction (cargo ft)	: 956	
Packi	ng instruction enger aircraft)	: 956	
(pass	enger aneran)		
IMDG	i		
UN nu	umber	: UN 3077	N ³
Prope	er shipping name	: ENVIRONMEN N.O.S.	ITALLY HAZARDOUS SUBSTANCE, SOLID,
			IETAL COMPLEX DYESTUFF)
Class	i	: 9	
	ng group	: 111	
Label	-	: 9	
EmS	Code le pollutant	:F-A, S-F :yes	
			RPOL 73/78 and the IBC Code
Not a	pplicable for product a	s supplied.	A HAIL
Dome	estic regulation		
DOT	Classification		<u>ે</u> મે
UN/IE	D/NA number	: UN 3077	2
Prope	er shipping name	: ENVIRONMEN N.O.S.	TALLY HAZARDOUS SUBSTANCES, SOLID,
			IETAL COMPLEX DYESTUFF)
Class		9 5	
Packi	ng group	: 11	
Packi Label	ng group s	: 111 : CLASS 9	
Packi Label ERG	ng group s	: 11	

SECTION 15. REGULATORY INFORMATION

TSCA - 5(a) Significant New : Not relevant Use Rule List of Chemicals

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
SODIUM HEXAMETAPHOSPHATE	10124-56-8	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Chronic Health Hazard

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SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR ANKS SINCE 61):

disodium [2,4-dihydro-4-70236-60-1 [(2-hydroxy-5nitrophenyl)azo]-5methyl-2-phenyl-3Hpyrazol-3-onato(2-)][3hydroxy-4-[(2-hydroxy-1naphthyl) disodium [3-[(4,5dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4yl)azo]-4hydroxybenzenesulphon ato(3-)][1-[[2-hydroxy-5-(phenylazo)ph

52587-68-5

23.9115 %

34.6281 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

California Prop 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

Distillates (petroleum), hydrotreated heavy 64742-54-7 paraffinic

The ingredients of this product are reported in the following inventories:

TSCA DSL

: On the inventory, or in compliance with the inventory

On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

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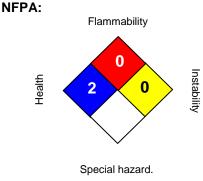
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LANASET® BROWN B

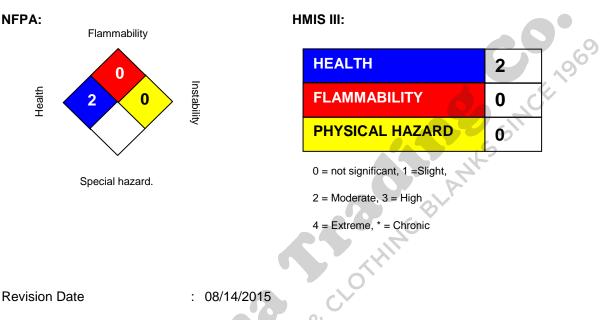
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SECTION 16. OTHER INFORMATION

Further information



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While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication. NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES. IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE. THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL **REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET** SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.



LANASET® GREEN B

Section 1. Identific	ation
GHS product identifier :	LANASET® GREEN B
Product code :	00041695
Other means of identification :	Not available.
	Solid.
Identified uses	
Textile dye	SIN'S
Uses advised against Not available.	Reason
Supplier's details :	Huntsman International, LLC Textile Effects Division P.O. Box 4980 The Woodlands, TX 77387
	Customer service telephone: (888) 514-4558
e-mail address of person : responsible for this SDS	MSDS@huntsman.com
Emergency telephone : number (24h/7day)	Chemtrec: (800) 424-9300 or (703) 527-3887
Section 2. Hazards	identification
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: Very toxic to aquatic life with long lasting effects.

Section 2. Hazards identification

Precautionary statements

: Avoid release to the environment. Collect spillage. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Disodium [(9,10-dihydro-9,10-dioxo-1,4-anthrylene)bis(imino-4, 1-phenyleneoxy)]bis(benzenesulfonate)	60 - 100	70161-19-2
PARAFFIN OILS	1 - 3	8012-95-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first	aid measures
Eye contact	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion COLOR FAERIC	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed Potential acute health effects

Eye contact

: No known significant effects or critical hazards.

Section 4. First aid measures

Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	oms
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
ndication of immediate med	cal attention and special treatment needed, if necessary
Notes to physician	: No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	:	Closed cup: Not applicable.
Extinguishing media		Lies on extinguishing agent quitable for the surrounding fire
Suitable extinguishing media		Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products		Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	:	Not explosive

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures				
	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.			
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".			
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.			
Methods and materials for containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry in sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.	to		

Section 7. Handling and storage

Precautions for safe handling : Put on appropriate personal protective equipment (see Section 8). Do not ingest. **Protective measures** Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Advice on general Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before occupational hygiene eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Conditions for safe storage, Store in accordance with local regulations. Store in original container protected including any from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and incompatibilities sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters Occupational exposure limits

Section 8. Exposure controls/personal protection

standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P1	Ingredient name			Exposure limits	
controlscontaminants.Environmental exposureEmissions from ventilation or work process equipment should be checked to ensure the comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.ndividual protection measuresIt wash hands, forearms and face thoroughly after handling chemical products, befor eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.Eye/face protectionSafety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contart is possible, the following protection is afety glasses with 	PARAFFIN OILS			TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 6/2010).	
 Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Mash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eyelface protection Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene Personal protective equipment for the body should be espected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Wash aproprive fitted, par		:	•	ifficient to control worker exposure to airborne	
controlsthey comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.Individual protection measures:Hygiene measures:Wash hands, forearms and face thoroughly after handling chemical products, befor eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.Eye/face protection:Safety eyewear complying with an approved standard should be used when a risk 					
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated, < 1 hour (breakthrough time): butyl or neopreneBody protection: Appropriate footwear and any additional skin protection measures should be approved by a specialist before handling this product.Cother skin protection: Appropriate footwear and any additional skin protection approved by a specialist before handling this product.Body protection: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this i		:	they comply with the requirements of cases, fume scrubbers, filters or engin	environmental protection legislation. In some neering modifications to the process	
 eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eye/face protection Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling charameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Appropriate footwear and any additional skin protection measures should be approved by a specialist before handling this product. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection musi be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P1 	ndividual protection measur	<u>'es</u>		JIL-	
 assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Other skin protection Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P1 	Hygiene measures	:	eating, smoking and using the lavator Appropriate techniques should be use Wash contaminated clothing before re	y and at the end of the working period. ed to remove potentially contaminated clothing. eusing. Ensure that eyewash stations and	
Body protectionDescriptionBody protectionConsidering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene	Eye/face protection	:	assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with		
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.Respiratory protection: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P1	Hand protection	:	be worn at all times when handling ch this is necessary. Considering the pa check during use that the gloves are s should be noted that the time to break different for different glove manufactu several substances, the protection time	emical products if a risk assessment indicates rameters specified by the glove manufacturer, still retaining their protective properties. It sthrough for any glove material may be rers. In the case of mixtures, consisting of the of the gloves cannot be accurately	
 Respiratory protection Respiratory protection Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P1 	Body protection		being performed and the risks involve		
standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P1	Other skin protection	:	selected based on the task being perf	ormed and the risks involved and should be	
Fhermal hazards : Not available.	Respiratory protection	:	standard if a risk assessment indicate be based on known or anticipated exp the safe working limits of the selected	es this is necessary. Respirator selection must bosure levels, the hazards of the product and	
	Thermal hazards	:	Not available.		

Section 9. Physical and chemical properties

Appearance		
Physical state	:	Solid. [granules]
Color	:	Navy blue
Odor	:	Odorless.
Odor threshold	:	Not applicable.
рН	:	9 to 9.5 [Conc. (% w/w): 2%]
Melting point/Freezing point	:	Not available.
Boiling/condensation point	:	Not available.
Flash point	:	Closed cup: Not applicable.
Evaporation rate	:	Not applicable.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Not available. Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility in water	:	Not available.
Water Solubility Result	:	30 g/l 30 deg C
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	200°C (392°F)
Ignition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	:	420 °C
Explosive properties	:	Not explosive
Oxidizing properties		None.
Viscosity	-	Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Disodium [(9,10-dihydro-9, 10-dioxo-1,4-anthrylene)bis (imino-4,1-phenyleneoxy)]bis	-	LD50 Oral	Rat	>5000 mg/kg
(benzenesulfonate) PARAFFIN OILS	-	LC50 Inhalation Dusts and mists	Rat	2062 mg/l
LANASET GREEN B	-	LD50 Oral LD50 Oral	Rat Rat	22000 mg/kg >5000 mg/kg

Irritation/Corrosion

Conclusion/Summary

ANAGET GREEN D		-	LDJ	o Oran	Nai	~3000 mg
ritation/Corrosion						
Conclusion/Summary						5
Skin	:	Non-irritant. Rabbit				5
		Disodium [(9,10-dihydr 10-dioxo-1,4-anthrylen (imino-4,1-phenyleneo bis(benzenesulfonate)	e)bis	No additional inform	nation.	
		PARAFFIN OILS		No additional inform	nation.	
Eyes	:	Non-irritant. Rabbit				
		Disodium [(9,10-dihydr 10-dioxo-1,4-anthrylen (imino-4,1-phenyleneo bis(benzenesulfonate)	e)bis	No additional inform	nation.	
		PARAFFIN OILS		No additional inform	mation.	
Respiratory	:	Disodium [(9,10-dihydr 10-dioxo-1,4-anthrylen (imino-4,1-phenyleneo bis(benzenesulfonate)	e)bis	No additional inform	nation.	
		PARAFFIN OILS		No additional inform	nation.	

Sensitization

Sensitization						
Product/ingredient name	Test	Route of exposure	Species	Result		
Disodium [(9,10-dihydro-9, 10-dioxo-1,4-anthrylene)bis (imino-4,1-phenyleneoxy)]bis (benzenesulfonate)	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing		
LANASET GREEN B	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing		

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure) Not available.

Aspiration hazard

Not available.

Information on the likely : Not available. routes of exposure

Potential acute health effects

<u>ecific target organ toxi</u>	icity (repeated exposure)
ot available.	
p <mark>iration hazard</mark> ot available.	
ormation on the likely utes of exposure	SIN
tential acute health effort	<u>ects</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

, 4.5 g

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	;	Not available.
Long term exposure	/	
Potential immediate effects		Not available.
Potential delayed effects		Not available.

Potential chronic health effects

General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information

: Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Disodium [(9,10-dihydro-9, 10-dioxo-1,4-anthrylene)bis (imino-4,1-phenyleneoxy)]bis (benzenesulfonate)	OECD 201 Alga, Growth Inhibition Test	Acute	EC50	72 hours	Algae	9.6	mg/l
	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>34	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	0.6	mg/l
PARAFFIN OILS	Unknown guidelines Not known	Acute	LC0	96 hours	Fish	>1000	mg/l
	Unknown guidelines Not known	Acute	LC100	96 hours	Fish	>1000	mg/l
	Unknown guidelines Not known	Acute	LC50	96 hours	Fish	>1000	mg/l
LANASET GREEN B	OECD 201 Alga, Growth Inhibition Test	Acute	EC50	72 hours	Algae	9.6	mg/l
	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>34	mg/l
		Acute	IC50	3 hours	Bacteria	>300	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC0	48 hours	Fish	0.2	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	0.6	mg/l

Persistence and degradability

Product/ingredient name	Test	Period	Result
Disodium [(9,10-dihydro-9, 10-dioxo-1,4-anthrylene)bis (imino-4,1-phenyleneoxy)]bis (benzenesulfonate)		28 days	10 to 20 %
LANASET GREEN B	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	28 days	10 to 20 %

Conclusion/Summary

: Poorly eliminated by adsorption on effluent treatment sludge.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET GREEN B Disodium [(9,10-dihydro-9, 10-dioxo-1,4-anthrylene)bis (imino-4,1-phenyleneoxy)]bis (benzenesulfonate)	-	-	Not readily Not readily

Bioaccumulative potential

Bioaccumulative potential			
Product/ingredient name	LogPow	BCF	Potential
Disodium [(9,10-dihydro-9, 10-dioxo-1,4-anthrylene)bis (imino-4,1-phenyleneoxy)]bis (benzenesulfonate)	<3	-	low

Mobility in soil

Other ecological information

			153
			and the second sec
:	No known s	significant effects	s or critical hazards.
:	0	mgO2/g	
:	1270	mgO2/g	0
:	43	%	C~
:	0	%	e
1	0	%	
1	3.4	%	*
:	Metal conte	ent under the ET	AD recommended limits.
		: 0 : 1270 : 43 : 0 : 0 : 3.4	: 1270 mgO2/g : 43 % : 0 % : 0 % : 3.4 %

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT : Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF). Marine pollutant TDG : Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF). Marine pollutant IMDG : Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF). Marine pollutant

ΙΑΤΑ : Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF)

					C .
Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	UN3077	9	111		- Only regulated in Bulk.
TDG Classification	UN3077	9	уш С		-
IMDG Classification	UN3077	559	111		<u>Emergency</u> <u>schedules (EmS)</u> F-A, S-F
IATA Classification	UN3077	9	III		Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 956 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 956

PG* : Packing group

Section 15. Regulatory information

Safety, health and environmental	regulations specific for the product
ouror, nourin and on in ontinontal	

United States Regulations

TSCA 8(b) inventory	: All components are listed or exempted.	
TSCA 5(a)2 final significant new use rule (SNUR)	: No ingredients listed.	
TSCA 5(e) substance consent order	: No ingredients listed.	3
TSCA 12(b) export notification	 No ingredients listed. No ingredients listed. Not classified. 	
SARA 311/312	: Not classified.	
Clean Air Act - Ozone Depleting Substances (ODS)	: This product does not contain nor is it manufactured with ozone depleting substance	es.
SARA 313	: No ingredients listed.	
CERCLA Hazardous substances	 This product does not contain nor is it manufactured with ozone depleting substance No ingredients listed. No ingredients listed. 	
State regulations	94 94	
PENNSYLVANIA - RTK	: Sodium sulfate, Mixture of hydrocarbons ex petroleum	
California Prop 65	: This product contains no listed substances known to the State of California to caus cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.	е
Canadian regulations		
CEPA DSL	: All components are listed or exempted.	
WHMIS Classes	: Not controlled under WHMIS (Canada).	
	classified in accordance with the hazard criteria of the Controlled Products SDS contains all the information required by the Controlled Products Regulatio	ns.
Ju of		
Brazil Regulations		
Classification system used	: Norma ABNT-NBR 14725-2:2012	
International lists	 Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Japan inventory: All components are listed or exempted. Korea inventory: All components are listed or exempted. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): All components are listed or exempted. Taiwan inventory (CSNN): Not determined. 	

Section 16. Other information

Hazardous Material : Information System (U.S.A.)

Health	0
Flammability	1
Physical hazards	0
Personal protection	X

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection : Association (U.S.A.) Hea	alth 0 0 Instability Special
Response Copyright ©1997, Nationa material is not the complete and office	A 704-2001, Identification of the Hazards of Materials for Emergency al Fire Protection Association, Quincy, MA 02269. This reprinted cial position of the National Fire Protection Association, on the nted only by the standard in its entirety.
intended to be interpreted and applie reactivity hazards of chemicals. The recommended classifications in NFF	ection Association, Quincy, MA 02269. This warning system is ed only by properly trained individuals to identify fire, health and user is referred to certain limited number of chemicals with PA 49 and NFPA 325, which would be used as a guideline only. If by NFPA or not, anyone using the 704 systems to classify

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Notice to reader

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Section 16. Other information

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY REPARTSUPPLIES & CLOTHING BLANKS SIN MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO CO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.



LANASET® GREY G GR

Section 1. Identification

GHS product identifier	:	LANASET® GREY G GR
Product code	:	00041728
Other means of identification	on :	Not available.
Product type	- :	Solid.
Relevant identified uses of	the	substance or mixture and uses advised against
Product use	1	Textile dye
		SIL
Supplier's details		Huntsman International, LLC
cappion o actualo		Textile Effects Division
		P.O. Box 4980
		The Woodlands, TX 77387
		Customer service telephone: (888) 514-4558
e-mail address of person	1	MSDS@huntsman.com
responsible for this SDS		
Emergency telephone	1	Chemtrec: (800) 424-9300 or (703) 527-3887
number (24h/7day)		

Section 2. Hazards identification

OSHA/HCS status		This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture <u>GHS label elements</u>		SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2
Hazard pictograms	:	
Signal word	: ۱	Warning
Hazard statements	:	May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.
Precautionary statements	:	Wear protective gloves: < 1 hour (breakthrough time): butyl or neoprene. Avoid release to the environment. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Collect spillage. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Chromium as Cr(III) organo-metal complex	13 - 30	84145-95-9
Cobalt as organo-metal complex	13 - 30	75314-27-1
Chromium as Cr(III) organo-metal complex	7 - 13	68541-71-9
Chromium as Cr(III) organo-metal complex	1 - 3	51147-75-2
Chromium as Cr(III) organo-metal complex	1 - 3	64611-73-0
2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	1 - 3	36290-04-7
PARAFFIN OILS	1-3	8012-95-1
Cobalt as organo-metal complex	0.1 - 1	70851-34-2,
		73612-41-6

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Any concentration shown as a range is to protect confidentiality or is due to batch variation. **Occupational exposure limits, if available, are listed in Section 8.**

Section 4. First aid measures

Description of necessary firs	aid measures
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion CORPL	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
71.	the head should be kept low so that vomit does not enter the lungs. Get media attention if adverse health effects persist or are severe. Never give anything b mouth to an unconscious person. If unconscious, place in recovery position an medical attention immediately. Maintain an open airway. Loosen tight clothing

Most important symptoms/effects, acute and delayed Potential acute health effects

Section 4. First aid measures

Section 4. First a	iu illeasules
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sym	ptoms
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion <u>Indication of immediate me</u>	: No specific data. dical attention and special treatment needed, if necessary
Notes to physician	: No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	: Closed cup: Not applicable.
Extinguishing media Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	 This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Section 5. Fire-fighting measures

Remark

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: Not explosive
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Section 6. Accidental release measures

Personal precautions, protect	iv	e equipment and emergency procedures
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Methods and materials for containment and cleaning up	:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling	
Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

	Occupat	ional ex	posure	limits
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Ingredient name	Exposure limits
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010).
	TWA: 0.5 mg/m ³ , (as Cr) 8 hours.
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010).
	TWA: 0.5 mg/m³, (as Cr) 8 hours.
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010).
	TWA: 0.5 mg/m³, (as Cr) 8 hours.
PARAFFIN OILS	ACGIH TLV (United States, 3/2012).
	TWA: 5 mg/m ³ 8 hours. Form: Inhalable
	fraction
	OSHA PEL (United States, 6/2010).
	TWA: 5 mg/m ³ 8 hours.

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measur	<u>'es</u>	
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection		Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection filter P2
	protection, filter P2
Thermal hazards	: Not available.

Section 9. Physical and chemical properties

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Appearance				
Physical state	1	Solid. [granules]		
Color	1	Black.		
Odor	1	Odorless.		.CV
Odor threshold	1	Not applicable.		7
рН	1	7.5 to 8 [Conc. (% w/w): 2%]		2
Melting point/Freezing point	1	Not available.	F	
Boiling/condensation point	1	Not available.		
Flash point	1	Closed cup: Not applicable.		
Evaporation rate	1	Not applicable.		
Flammability (solid, gas)	1	Non-flammable.		
Lower and upper explosive (flammable) limits	:	Solid. [granules] Black. Odorless. Not applicable. 7.5 to 8 [Conc. (% w/w): 2%] Not available. Not available. Closed cup: Not applicable. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.		
Vapor pressure	1	Not available.		
Vapor density	1	Not available.		
Relative density	1	Not available.		
Solubility in water	1	Not available.		
Water Solubility Result		80 g/l	30	deg C
Partition coefficient: n- octanol/water	:	Not available.		
Auto-ignition temperature		Not available.		
Decomposition temperature	:	>200°C (>392°F)		
Ignition Temperature (Deg):	500 °C		
C) : SIT > 450 *ASTM-				
D1929B				
Explosive properties	:	Not explosive		
Oxidizing properties	1	None.		
Density	3	0.6 to 0.7 g/cm³ [20°C (68°F)]		
Viscosity	:	Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.		
VOC	:	2.1 % (w/w)		

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.

: Under normal conditions of storage and use, hazardous decomposition products

Section 11. Toxicological information

should not be produced.

Information on toxicological effects

Hazardous decomposition

Acute toxicity

products

Product/ingredient name	Test	Endpoint	Species	Result
Cobalt as organo-metal complex	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat	>2000 mg/kg
Chromium as Cr(III) organo- metal complex	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat	>2000 mg/kg
Chromium as Cr(III) organo- metal complex	Unknown guidelines Not known	LD50 Oral	Rat	>2000 mg/kg
2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No official guidelines	LD50 Oral	Mouse	4880 mg/kg
PARAFFIN OILS	-	LC50 Inhalation Dusts and mists	Rat	2062 mg/l
	-	LD50 Oral	Rat	22000 mg/kg
Cobalt as organo-metal complex	Unknown guidelines Not known	LD50 Oral	Rat	3900 mg/kg
LANASET GREY G GR		LD50 Oral	Rat	>5000 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
	OECD 404 Acute Dermal	Rabbit	Skin - Non-irritant.
		Rabbit	Eyes - Non-irritant.

Conclusion/Summary

- Skin CC
- Non-irritating to the skin.
- Chromium as Cr(III) No additional information. organo-metal complex Cobalt as organo-metal No additional information. complex Chromium as Cr(III) No additional information. organo-metal complex Chromium as Cr(III) No additional information. organo-metal complex Chromium as Cr(III) No additional information. organo-metal complex 2-naphthalenesulfonic acid, No additional information. polymer with formaldehyde, sodium salt

		PARAFFIN OILS Cobalt as organo-metal complex	No additional information. No additional information.	
Eyes	:	Non-irritating to the eyes.		
		Chromium as Cr(III) organo-metal complex	No additional information.	
		Cobalt as organo-metal complex	No additional information.	
		Chromium as Cr(III) organo-metal complex	No additional information.	
		Chromium as Cr(III) organo-metal complex	No additional information.	190
		Chromium as Cr(III) organo-metal complex	No additional information.	A ACK
		2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No additional information.	ANKS SINCE 1969
		PARAFFIN OILS	No additional information.	21
		Cobalt as organo-metal complex	No additional information.	st A'
Respiratory	:	Chromium as Cr(III) organo-metal complex	No additional information.	
		Cobalt as organo-metal complex	No additional information.	
		Chromium as Cr(III) organo-metal complex	No additional information.	
		Chromium as Cr(III) organo-metal complex	No additional information.	
		Chromium as Cr(III) organo-metal complex	No additional information.	
		2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No additional information.	
		PARAFFIN OILS	No additional information.	
	, .	Cobalt as organo-metal complex	No additional information.	

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
Chromium as Cr(III) organo- metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing
Cobalt as organo-metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing
Chromium as Cr(III) organo- metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing
Cobalt as organo-metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing
LANASET GREY G GR	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing

Mutagenicity

	5	
Product/ingredient name	Test	Result
2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	Subject: bacteria/yeast	Negative

Carcinogenicity

Not available.

Carcinogenic class		
Product/ingredient name	IARC	OSHA
Chromium as Cr(III) organo-metal complex Chromium as Cr(III) organo-metal complex Chromium as Cr(III) organo-metal complex	3 3 3	- CENS
Reproductive toxicity		55
Not available.		A AL
<u>Teratogenicity</u>		alle
Not available.		
Specific target organ toxicity (single exposure) Not available.		THIN
Specific target organ toxicity (repeated exposure) Not available.	e Ch	
Aspiration hazard Not available.	LIES -	
Information on the likely : Not available. routes of exposure		
Determined exactly affects		

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated exposure)

Aspiration hazard

Potential acute health effects

Eye contact	;	No known significant effects or critical hazards.
Inhalation	;	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure **Potential** : Not available. immediate effects

Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Section 12 Eco	ological information
Other information	: Not available.
Acute toxicity estimate Not available.	
Numerical measures of	toxicity
Fertility effects	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Acute toxicity estimates

Section 12. Ecological information

Toxicity

Product/ingredient name	Test S	Endpoint		Exposure	Species	Result	
Chromium as Cr(III) organo- metal complex	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>100	mg/l
		Acute Acute	IC50 LC50	3 hours 48 hours	Bacteria Fish	>300 7	mg/l mg/l
Cobalt as organo-metal complex	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>131	mg/l
E CO C ABRIC	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
Chromium as Cr(III) organo- metal complex	- OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute Acute	LC50 EC50	48 hours 48 hours	Fish Daphnia	58 146	mg/l mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	NOEC	48 hours	Daphnia	39	mg/l

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Section 12. ECOIO	yicai intorniai						
Chromium as Cr(III) organo- metal complex	OECD 202 Daphnia sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	<0.6	mg/l
	Unknown guidelines Not known	Acute	IC50	3 hours	Bacteria	>300	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours	Fish	>100	mg/l
2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No official guidelines	Acute	EC50	48 hours	Daphnia	37	mg/l
	No official guidelines OECD OECD 202 screening	Acute Acute	EC50 EC50	48 hours 48 hours	Daphnia Daphnia	9.9 to 15 39	mg/l mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>1000	mg/l
PARAFFIN OILS	Unknown guidelines Not known	Acute	LC0	96 hours	Fish	>1000	mg/l
	Unknown guidelines Not known	Acute	LC100	96 hours	Fish	>1000	mg/l
	Unknown guidelines Not known	Acute	LC50	96 hours	Fish	>1000	mg/l
Cobalt as organo-metal complex	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	ÉC50	48 hours	Daphnia	30.5	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours	Fish	0.52	mg/l
LANASET GREY G GR	OECD 202 Daphnia sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	1 to 10	mg/l
	- OECD 203 Fish, Acute Toxicity Test	Acute Acute	IC50 LC50	3 hours 96 hours	Bacteria Fish	>100 18	mg/l mg/l

Conclusion/Summary

: Toxic to aquatic organisms if run directly to surface waters.

Persistence and degradability

Product/ingredient name	Test	Period	Result
Chromium as Cr(III) organo- metal complex	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	28 days	0 %
Cobalt as organo-metal complex	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	21 days	0 %
Chromium as Cr(III) organo- metal complex	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	22.9 %
2-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No official guidelines	28 days	<60 %
	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	28 days	<5 %
Cobalt as organo-metal complex	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	0.3 %
LANASET GREY G GR	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	70 to 80 %

Conclusion/Summary

- : Eliminated by adsorption onto effluent treatment sludge.
 - Chromium as Cr(III) organo-metal complex

Partially eliminated by adsorption onto effluent treatment sludge.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET GREY G GR	-	-	Not readily
Chromium as Cr(III) organo-	-	-	Not readily
metal complex			Net we dit.
Cobalt as organo-metal complex	-	-	Not readily
Chromium as Cr(III) organo-	-	-	Not readily
metal complex			
2-naphthalenesulfonic acid,	-	-	Not readily
polymer with formaldehyde, sodium salt			
Cobalt as organo-metal	-	-	Not readily
complex			
			A
Bioaccumulative potential			

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Chromium as Cr(III) organo- metal complex	<3		low
Chromium as Cr(III) organo- metal complex	<3		low
Chromium as Cr(III) organo- metal complex	<3	-	low
Cobalt as organo-metal complex	<3	S	low

Mobility in soil

Not available.

Other adverse effects

: No known significant effects or critical hazards.

Other ecological information

BOD5	: 25	mgO2/g	
COD	: 1000	mgO2/g	
TOC	: 34.4	%	
Organohalogen content	: 0.28	%	Chloro
Phosphorus Content	: < 0.1	%	as phosphate
Nitrogen Content	: 5.7	%	
Metal Content	: 0.79	%	Cobalt as organo-metal complex
	: 2.5	%	Chromium as Cr(III) organo-metal complex

Section 13. Disposal considerations

 Disposal methods
 The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT	: Environmentally hazardous substance, solid, n.o.s.	(METAL COMPLEX DYESTUFF). Marine pollutant
TDG	: Environmentally hazardous substance, solid, n.o.s.	(METAL COMPLEX DYESTUFF). Marine pollutant
IMDG	: Environmentally hazardous substance, solid, n.o.s.	(METAL COMPLEX DYESTUFF). Marine pollutant
IATA	: Environmentally hazardous substance, solid, n.o.s.	(METAL COMPLEX DYESTUFF)

			e e		
Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	UN3077	5,59	111	¥2	- Marine Pollutant Only regulated in Bulk
TDG Classification	UN3077	9	111		Only regulated in Bull Marine pollutant
IMDG Classification	UN3077	9	111		<u>Emergency</u> <u>schedules (EmS)</u> F-A, S-F

Section 14. Transport information

IATA ClassificationUN30779IIIPassenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 956Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 956Quantity limitation: 400 kg Packaging instructions: 956

PG* : Packing group

Section 15. Regulatory information

Safety, health and environ	ntal regulations specific for the product	
United States Regulation		
TSCA 8(b) inventory	All components are listed or exempted.	
TSCA 5(a)2 final significant new use rule (SNUR)	All components are listed or exempted. No ingredients listed.	
TSCA 5(e) substance consent order	No ingredients listed.	
TSCA 12(b) export notification	No ingredients listed.	
SARA 311/312	Immediate (acute) health hazard	
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	Product nameConcentration %Chromium as Cr(III) organo-metal complex19.556Cobalt as organo-metal complex17.347Chromium as Cr(III) organo-metal complex12.277Chromium as Cr(III) organo-metal complex2.9755Chromium as Cr(III) organo-metal complex1.5346Chromium as Cr(III) organo-metal complex1.5346	
Clean Air Act - Ozone Depleting Substances (ODS)	This product does not contain nor is it manufactured with ozone depleting substant	ces.
SARA 313 Form R - Reporting requirements	Product nameConcentration %Chromium as Cr(III) organo-metal complex19.556Cobalt as organo-metal complex17.347Chromium as Cr(III) organo-metal complex12.277Chromium as Cr(III) organo-metal complex2.9755Chromium as Cr(III) organo-metal complex1.5346Chromium as Cr(III) organo-metal complex1.5346	

Section 15. Regulatory information

occuon re: regu					
	Ingredient name	<u>%</u>	<u>Section 304</u> <u>CERCLA</u> <u>Hazardous</u> <u>Substance</u>	<u>CERCLA</u> <u>Reportable</u> <u>Quantity</u> (Lbs)	<u>Product</u> <u>Reportable</u> <u>Quantity</u> (Lbs)
CERCLA Hazardous : substances	Chromium as Cr(III) organo-metal complex	19.5564	Listed	No RQ assigned	
	Cobalt as organo- metal complex	17.34717	Listed	No RQ	
	Chromium as Cr(III) organo-metal complex	12.27672	Listed	No RQ assigned	
	Chromium as Cr(III) organo-metal complex	2.9755	Listed	No RQ assigned	190
	Chromium as Cr(III) organo-metal complex	1.53459	Listed	No RQ assigned	NCE 1969
	Chromium as Cr(III) organo-metal complex	1.53459	Listed	No RQ assigned	
	Cobalt as organo- metal complex	0.3009	Listed		
	Cobalt as organo- metal complex	0.09439	Listed	No RQ assigned	
			C' NG	~	
State regulations			K HIII		
PENNSYLVANIA - RTK	Chromium as Cr(III) or complex, Chromium as metal complex, Cobalt complex, Sodium sulfa	s Cr(III) organo as organo-me	o-metal complex, tal complex, Chro	Chromium as Cr	(III) organo-
California Prop 65	This product contains r cancer, birth defects or warning under the state	r other reprodu			
Canadian regulations	10,5				
CEPA DSL :	All components are list	ed or exempte	ed.		
WHMIS Classes	Class D-2B: Material c	ausing other to	oxic effects (Toxio	c).	
This product has been Regulations and the MS					
Den 1 Den 1 de 7	-				
Brazil Regulations Classification system	Norma ABNT-NBR 14	725-2.2012			
used					
International lists	Australia inventory (A China inventory (IEC Japan inventory: All c Korea inventory: All c Malaysia Inventory (E New Zealand Invento exempted. Philippines inventory Taiwan inventory (CS	SC): All compo components are components are EHS Register) ry of Chemica r (PICCS): At le	onents are listed o e listed or exemp e listed or exemp : Not determined als (NZIOC): All c east one compon	or exempted. ited. ted. omponents are li	sted or

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	0
Physical hazards	0
Personal protection	Х

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection : Association (U.S.A.) Flammability Health 2 0 Instability Special	
Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergene Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.	су
Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only.	

only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of printing	: 1/2/2014.
Date of issue	: 1/2/2014.
Date of previous issue	: No previous validation.
Version	1 S-

Indicates information that has changed from previously issued version.

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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Section 16. Other information

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY AN. M. MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO CO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

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SECTION 1. IDENTIFICATION

Product name	: LANASET® NAVY R
Manufacturer or supplier's d	etails
Company name of supplier Address	 Huntsman International LLC P.O. Box 4980 The Woodlands, TX 77387 United States of America
Telephone	: Cust ser: (888) 514 4558
E-mail address of person responsible for the SDS	: MSDS@huntsman.com
Emergency telephone	: Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use

Recommended use

: Textile dyes, finishing and impregnating products; including bleaches and other processing aids

ECTION 2. HAZARDS IDENTIF	ICATION
GHS Classification Skin sensitization	: Category 1
Chronic aquatic toxicity	: Category 3
GHS Label element Hazard pictograms	
Signal Word	: Warning
Hazard Statements	: H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.
Precautionary Statements	 Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and wate P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

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rsion	Revision Date: 09/29/2015	SDS Number: 400001005644	Date of last issue: 07/21/ Date of first issue: 07/10/	
		attention. P362 Take off Disposal:	If skin irritation or rash occurs: f contaminated clothing and wa of contents/ container to an a	ash before reuse
	r hazards known.			Co
CTION	3. COMPOSITION/IN	FORMATION ON IN	GREDIENTS	NCK
Subs	tance / Mixture	: Mixture		12 SI
Haza	rdous ingredients			
	nical Name			oncentration (%)
nitrop	lium [4-hydroxy-3-[(2-h henyl)azo]naphthalen /droxy-4-nitrophenyl)a	e-1-sulphonato(3-)][1		13 - 3
	fin oils		8012-95-1	1 - 3
bis[[(e trime	im 1-amino-4-[[3,5- chloroacetyl)amino]me thylphenyl]amino]-9,10 anthracene-2-sulphon)-dihydro-9,10-	80010-51-1	0.1 - 1
			²	
CTION	4. FIRST AID MEASU			
	4. FIRST AID MEASU	JRES : Move out of d Show this mar attendance.	angerous area. terial safety data sheet to the o	doctor in
Gene	eral advice	JRES : Move out of d Show this ma attendance. Do not leave t	terial safety data sheet to the othe the terial safety data sheet to the othe the terial safety data sheet to the terial safet	doctor in
	eral advice	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh	terial safety data sheet to the o the victim unattended. air.	doctor in
Gene	eral advice	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate	terial safety data sheet to the o the victim unattended. air. ory tract clear.	doctor in
Gene	aled	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate If symptoms p	terial safety data sheet to the o the victim unattended. air. ory tract clear. persist, call a physician.	
Gene	eral advice	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm	terial safety data sheet to the o the victim unattended. air. ory tract clear.	
Gene	aled	JRES : Move out of d Show this mai attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm minutes.	terial safety data sheet to the o the victim unattended. air. ory tract clear. persist, call a physician. rediately with plenty of water fo	
Gene	aled	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm minutes. If symptoms p	terial safety data sheet to the o the victim unattended. air. ory tract clear. persist, call a physician.	or at least 15
Gene If inha	eral advice aled se of skin contact	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm minutes. If symptoms p Take off conta	terial safety data sheet to the o the victim unattended. air. ory tract clear. persist, call a physician. rediately with plenty of water fo persist, call a physician. aminated clothing and shoes in	or at least 15
Gene If inha	aled	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm minutes. If symptoms p Take off conta	terial safety data sheet to the o the victim unattended. air. ory tract clear. persist, call a physician. rediately with plenty of water fo persist, call a physician. aminated clothing and shoes ir th water as a precaution.	or at least 15
Gene If inha	eral advice aled se of skin contact	JRES : Move out of d Show this mar attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm minutes. If symptoms p Take off conta : Flush eyes wi Remove conta	terial safety data sheet to the o the victim unattended. air. ory tract clear. persist, call a physician. rediately with plenty of water fo persist, call a physician. aminated clothing and shoes ir th water as a precaution.	or at least 15
Gene If inh: In ca:	eral advice aled se of skin contact	JRES : Move out of d Show this mar- attendance. Do not leave t : Move to fresh Keep respirate If symptoms p : Wash off imm minutes. If symptoms p Take off conta : Flush eyes wi Remove conta If eye irritation : Do not induce	terial safety data sheet to the of the victim unattended. air. ory tract clear. persist, call a physician. ediately with plenty of water for persist, call a physician. aminated clothing and shoes ir th water as a precaution. act lenses. persists, consult a specialist. e vomiting without medical advi- els unwell or symptoms of skin	or at least 15 nmediately. ice.

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SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
Unsuitable extinguishing media	High volume water jet	ංව
Specific hazards during fire fighting	Do not allow run-off from fire fighting to enter drains or water courses.	5
Hazardous combustion products	No hazardous combustion products are known	
Specific extinguishing methods	No data is available on the product itself.	
Further information	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.	
Special protective equipment for fire-fighters	Wear self-contained breathing apparatus for firefighting if necessary.	

SECTION 6. ACCIDENTAL RELEASE MEASURES

protective equipment and	Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Environmental precautions :	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for : containment and cleaning up	Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma,

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			nic or recurrent respiratory disease should not any process in which this mixture is being				
Cond	litions for safe storage	: Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.					
Mate	rials to avoid	: No special rest	rictions on storage with other products.				
SECTION	8. EXPOSURE CONT	ROLS/PERSONAL P	ROTECTION				
-	edients with workplace ains no substances with	-					
Pers	onal protective equipn	nent					

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Personal protective equipment	
Respiratory protection :	No personal respiratory protective equipment normally required.
Hand protection	0
Material :	Neoprene gloves
Break through time :	<1h
Remarks :	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection :	Eye wash bottle with pure water Tightly fitting safety goggles.
Skin and body protection :	Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures :	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: granules
Color	: dark blue
Odor	: odorless
Odor Threshold	: No data is available on the product itself.
рН	: 7.5 - 8, Concentration: 20 g/l
Flash point	: No data is available on the product itself.

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Evap	oration rate	: No data is ava	ailable on the product itself.
Flam	mability (solid, gas)	: No data is ava	ailable on the product itself.
Burni	ng rate	: Fire will sprea	ad by smoldering or slow decomposition.
		Fire will sprea	ad by smoldering or slow decomposition.
Uppe	r explosion limit	: No data is ava	ad by smoldering or slow decomposition. ailable on the product itself. ailable on the product itself. ailable on the product itself.
Lowe	r explosion limit	: No data is ava	ailable on the product itself.
Vapo	r pressure	: No data is ava	ailable on the product itself.
Relat	ive vapor density	: No data is ava	ailable on the product itself.
Relat	ive density	: No data is ava	ailable on the product itself.
Dens	ity	: 0.47 g/cm3 Bulk density	A C BI
	bility(ies) ater solubility	: 100 g/l (30 °C	
So	lubility in other solvents	: No data is ava	ailable on the product itself.
	ion coefficient: n-	: No data is ava	ailable on the product itself.
	ol/water gnition temperature	: No data is ava	ailable on the product itself.
Deco	mposition temperature	: >240 °C	
Vis	scosity	No data is ava	ailable on the product itself.
Oxidiz	zing properties	: None.	
	Accelerating mposition temperature T)	: No data is ava	ailable on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity Chemical stability Possibility of hazardous reactions	 Not classified as a reactivity hazard. The product is chemically stable. Dust may form explosive mixture in air. Stable under normal conditions.
Conditions to avoid	: Avoid dust formation.
Hazardous decomposition products	: None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : No data is available on the product itself.

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expo	sure		
Acut	e toxicity		
Acute	e oral toxicity - Produc	ct : LD50 (Rat): 4	
Ingre	edients:		2,062 mg/l e: 4 h here: dust/mist able able
	ffin oils:		
Acute	e inhalation toxicity	: LC50 (Rat): 2 Exposure time	2,062 mg/l e: 4 h
			nere: dust/mist
Acute	e dermal toxicity	: No data avail	able
	e toxicity (other routes	s of : No data avail	able
aumi	inistration)		20 - 20 V
Skin	corrosion/irritation		G
Prod			
Rem	arks: May cause skin	irritation and/or derma	atitis
Rem	arks: May cause skin	irritation and/or derma	atitis.
			atitis.
Serio	ous eye damage/eye		atitis.
Serio <u>Prod</u>	ous eye damage/eye l <u>uct:</u>	irritation	
Serio <u>Prod</u>	ous eye damage/eye l <u>uct:</u>	irritation	atitis. , skin and respiratory system.
Serio Prod Rem	ous eye damage/eye l <u>uct:</u>	irritation ay be irritating to eyes	
Serio Prod Rem	ous eye damage/eye l <u>uct:</u> arks: Product dust ma biratory or skin sens	irritation ay be irritating to eyes	
Seric Prod Rem Resp <u>Prod</u>	ous eye damage/eye l <u>uct:</u> arks: Product dust ma biratory or skin sens	irritation ay be irritating to eyes	
Seria Prod Rem Resp Prod Rout Spec	ous eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin sies: Guinea pig	irritation ay be irritating to eyes itization	skin and respiratory system.
Seria Prod Rem Resp Prod Rout Spec Asse	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin bies: Guinea pig essment: May cause se	irritation ay be irritating to eyes itization ensitization by skin co	skin and respiratory system.
Serio Prod Rem Resp Prod Rout Spec Asse Meth	ous eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin sies: Guinea pig	irritation ay be irritating to eyes itization ensitization by skin co eline 406	skin and respiratory system.
Seric Prod Rem Resp Prod Rout Spec Asse Meth Resu	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin bies: Guinea pig essment: May cause so bod: OECD Test Guide ult: Causes sensitizatio	irritation ay be irritating to eyes itization ensitization by skin co bline 406 on.	skin and respiratory system.
Seric Prod Rem Resp Prod Rout Spec Asse Meth Resu	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide	irritation ay be irritating to eyes itization ensitization by skin co bline 406 on.	skin and respiratory system.
Seria Prod Rem Prod Rout Spec Asse Meth Resu	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin bies: Guinea pig essment: May cause so bod: OECD Test Guide ult: Causes sensitizatio	irritation ay be irritating to eyes itization ensitization by skin co bline 406 on.	skin and respiratory system.
Seria Prod Rem Prod Rout Spec Asse Meth Resu	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide ult: Causes sensitizatio arks: Causes sensitizatio	irritation ay be irritating to eyes itization ensitization by skin co eline 406 on. ation.	skin and respiratory system.
Seria Prod Rem Resp Prod Rout Spec Asse Meth Resu Rem Asse	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide ult: Causes sensitizatio arks: Causes sensitizatio	irritation ay be irritating to eyes itization ensitization by skin co eline 406 on. ation.	skin and respiratory system.
Seria Prod Rem Prod Rout Spec Asse Meth Resu Rem Asse	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause se od: OECD Test Guide ult: Causes sensitization arks: Causes sensitization essment:	irritation ay be irritating to eyes itization ensitization by skin co eline 406 on. ation.	skin and respiratory system.
Seria Prod Rem Prod Rout Spec Asse Meth Resu Rem Asse Germ Ingre disoc	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide ult: Causes sensitization arks: Causes sensitization ar	irritation ay be irritating to eyes itization ensitization by skin co eline 406 on. ation. No data available hydroxy-4-nitropheny	skin and respiratory system.
Seria Prod Rem Prod Rout Spec Asse Meth Resu Rem Asse Germ Ingra disoc	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide ult: Causes sensitizatio arks: Causes sensitizatio essment: n cell mutagenicity edients: dium [4-hydroxy-3-[(2- oxy-4-nitrophenyl)azo]	irritation ay be irritating to eyes itization ensitization by skin co eline 406 on. ation. No data available hydroxy-4-nitropheny]-2-naphtholato(2-):	skin and respiratory system.
Seria Prod Rem Prod Rout Spec Asse Meth Resu Rem Asse Germ Ingra disoc	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide ult: Causes sensitization arks: Causes sensitization ar	irritation ay be irritating to eyes itization ensitization by skin co bline 406 on. ation. No data available hydroxy-4-nitropheny]-2-naphtholato(2-): : Method: OEC	skin and respiratory system. ontact. e I)azo]naphthalene-1-sulphonato(3-)][1-[(2- D Test Guideline 476
Seria Prod Rem Prod Rout Spec Asse Meth Resu Rem Asse Germ disoc hydro Geno	bus eye damage/eye luct: arks: Product dust ma biratory or skin sens luct: es of exposure: Skin cies: Guinea pig essment: May cause s iod: OECD Test Guide ult: Causes sensitizatio arks: Causes sensitizatio essment: n cell mutagenicity edients: dium [4-hydroxy-3-[(2- oxy-4-nitrophenyl)azo]	irritation ay be irritating to eyes itization ensitization by skin co eline 406 on. ation. No data available hydroxy-4-nitropheny]-2-naphtholato(2-):	skin and respiratory system. ontact. e I)azo]naphthalene-1-sulphonato(3-)][1-[(2- D Test Guideline 476



No data available



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	Carcinogenicity - Assessment		: N	: No data available					
	IARC		Gro	Group 1: Carcinogenic to humans					
	ACGIH		para	paraffin oils					
			Sus	paraffin oils Suspected human carcinogen paraffin oils					
			para	paraffin oils					
	OSHA		equ		product present at levels greater than or				
	NTP		Kno	own to be human	carcinogen				
			para	affin oils	Bhr				
		ductive toxicity on fertility	: N	lo data available	carcinogen				
	Effects	on fetal developme	ent : N	: No data available					
	Reproc Assess	luctive toxicity - ment	: ٢	lo data available	9				
		single exposure a available	25	lo data available					
		repeated exposur a available	RAP						
		ted dose toxicity a available							
Tu	Repeat Assess	ed dose toxicity - ment	: N	lo data available					
	Aspiration toxicity No data available								
	Experience with human exp General Information: No		exposure	•					
			No data a	available					
	Inhalation: No			o data available					
	Skin co	ontact:	No data a	available					
	Eye co	ntact:	No data a	available					



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Ingestion:

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects No data available

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish - Product

: LC50: 17 mg/l Exposure time: 48 h Method: OECD Test Guideline 203

Ingredients:

disodium [4-hydroxy-3-[(2-hydroxy-4-nitrophenyl)azo]naphthalene-1-sulphonato(3-)][1-[(2hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-): Toxicity to daphnia and other aquatic invertebrates EC50 (Daphnia magna (Water flea)): 146 mg/l Exposure time: 48 h

Method: OECD Test Guideline 202 GLP: yes

NOEC (Daphnia magna (Water flea)): 39 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes

sodium 1-amino-4-[[3,5-bis[[(chloroacetyl)amino]methyl]-2,4,6-trimethylphenyl]amino]-9,10-dihydro-9,10-dioxoanthracene-2-sulphonate:
Toxicity to daphnia and other
aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yesToxicity to algae: No data availableM-Factor (Acute aquatic
toxicity): No data availableToxicity to fish (Chronic
toxicity): No data available

Toxicity to daphnia and other : No data available

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	aquatic in (Chronic t	vertebrates oxicity)				
	M-Factor toxicity)	(Chronic aquatic	:	No data available		
	Toxicity to	bacteria - Product	:	IC50: > 300 mg/l Exposure time: 3	h	
	Toxicity to organisms	o soil dwelling S	:	No data available		
	Plant toxic	city	:	No data available	SIN	
	Sediment	toxicity	:	No data available	NS-	
	Toxicity to organisms	o terrestrial S	:	No data available	h CELANISSINCE	
		logy Assessment atic toxicity	:	No data available	HING	
	Chronic a	quatic toxicity	:	No data available	0	
	Toxicity D	ata on Soil	:	No data available	er Cx	
	Other orgathe the enviro	anisms relevant to nment	:	No data available		
	Further in No data a	formation: vailable		SUPP		
	Persisten	ce and degradabil	ity			
	Biodegrad	dability - Product	Y:	Result: Not readily Biodegradation: 5 Exposure time: 28 Method: OECD T	50 - 60 %	
		cal Oxygen BOD) - Product	:	0 mgO2/g		
		Oxygen Demand	:	530 mgO2/g		
	(COD) - P BOD/COE		:	No data available		
	ThQD		:	No data available		
	BOD/ThO	D	:	No data available		
	Dissolved (DOC)	organic carbon	:	No data available		
	Physico-c removabil		:	No data available		



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Photo	odegradation	:	No data available	
Impa Treat	ct on Sewage ment	:	No data available	
Bioa	ccumulative potential			
Bioac	cumulation	:	No data available	
	dients:			o]naphthalene-1-sulphonato(3-)][1-[(2-
	ium [4-hydroxy-3-[(2-hyd xy-4-nitrophenyl)azo]-2-			o]naphthalene-1-sulphonato(3-)][1-[(2-
Partit	ion coefficient: n- ol/water		log Pow: < 3	NKS -
dihyd Partit	m 1-amino-4-[[3,5-bis[[(c ro-9,10-dioxoanthracene ion coefficient: n- ol/water	e-2-s		
Mobi	lity in soil			
Mobil	ity	:	No data available	
	bution among onmental compartments	:	No data available	e
Stabi	lity in soil	(;	No data available)
Othe	r adverse effects		S	
Envir pathv	onmental fate and vays	AX A	No data available	
	Its of PBT and vPvB ssment	:	No data available	
Endo poter	crine disrupting tial	:	No data available	
	rbed organic bound ens (AOX) - Product	:	< .1 % Test substance: (Chlorine
Haza	rdous to the ozone laye	er		
	e-Depletion Potential	:	Protection of Stra Substances Remarks: This pr manufactured wit	FR Protection of Environment; Part 82 atospheric Ozone - CAA Section 602 Class I roduct neither contains, nor was th a Class I or Class II ODS as defined by the ct Section 602 (40 CFR 82, Subpt. A, App.A +
	ional ecological nation - Product	:		I hazard cannot be excluded in the event of andling or disposal.



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LANASET® NAVY R

LANA			
Version 1.2	Revision Date: 09/29/2015	SDS Number: 400001005644	Date of last issue: 07/21/2015 Date of first issue: 07/10/2015
		Harmful to aq	uatic life with long lasting effects.
Glob (GW	al warming potential P)	: No data availa	able
	13. DISPOSAL CONS	DERATIONS	
-	osal methods		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Wast	te from residues	courses or the Do not contan chemical or us	hould not be allowed to enter drains, water e soil. ninate ponds, waterways or ditches with sed container. nsed waste management company.
Cont	aminated packaging		ing contents. unused product. empty containers.
SECTION	I 14. TRANSPORT INF	ORMATION	othin
Inter	national Regulation	2	
IATA Not r	egulated as a dangerou	us good	the state of the
IMD Not r	G egulated as a dangerou	5	

SECTION 14. TRANSPORT INFORMATION

International Regulation

IMDG

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

DOT Classification Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

TSCA - 5(a) Significant New : Not relevant Use Rule List of Chemicals

EPCRA - Emergency Planning and Community Right-to-Know

SARA 311/312 Hazards	: Acute Health Hazard
SARA 313	: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

07/21/2015 07/10/2015

LANASET® NAVY R

Version	Revision Date:	SDS Number:	Date of last issue:
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Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

disodium [4-hydroxy-3- [(2-hydroxy-4- nitrophenyl)azo]naphtha ene-1-sulphonato(3-)][1 [(2-hydroxy-4- nitrophenyl)azo]-2- naphtholato(2-)		18.3024 %
sodium bis[1-[(2-hydrox 4-nitrophenyl)azo]-2- naphtholato(2-)]chromate(1-)	y- 64611-73-0	2.2878 %
trisodium bis[4-hydroxy 3-[(2-hydroxy-4- nitrophenyl)azo]naphtha ene-1-sulphonato(3-)]chromate(3-)		2.2878 %
This product does not contain any SOCMI Intermediate or Final VOC		Clean Air Act Section 111
California Prop 65	This product does not contain State of California to cause ca	•

	reproductive defects.				
The ingredients of this product are reported in the following inventories:					
TSCA DSL	 On the inventory, or in compliance with the inventory This product contains the following components listed on the 				
	Canadian NDSL. All other components are on the Canadian DSL. : LANASET® BLUE 2R				
AICS NZIOC	On the inventory, or in compliance with the inventoryOn the inventory, or in compliance with the inventory				
ENCS	On the inventory, or in compliance with the inventoryOn the inventory, or in compliance with the inventory				
KECI	: On the inventory, or in compliance with the inventory				
PICCS IECSC	On the inventory, or in compliance with the inventoryOn the inventory, or in compliance with the inventory				
Inventories					

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)

HUNTSMAN

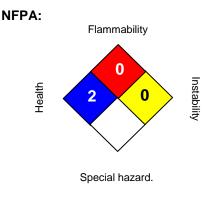
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LANASET® NAVY R

1.2 09/29/2015 400001005644 Date of first issue: 07/10/2015	Version 1.2	Revision Date: 09/29/2015	SDS Number: 400001005644	Date of last issue: 07/21/2015 Date of first issue: 07/10/2015	
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SECTION 16. OTHER INFORMATION

Further information



HMIS III:

 HEALTH
 2

 FLAMMABILITY
 0

 PHYSICAL HAZARD
 0

 0 = not significant, 1 =Slight,

 2 = Moderate, 3 = High

 4 = Extreme, * = Chronic

Revision Date

: 09/29/2015

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE. THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.



LANASET® ORANGE RN

Section 1. Identification

GHS product identifier	:	LANASET® ORANGE RN
Product code	:	00041906
Other means of identificatio	n :	Not available.
Product type	:	Solid.
Material uses	:	Textile dye
Supplier's details	:	Huntsman International, LLC Textile Effects Division P.O. Box 4980 The Woodlands, TX 77387
		Customer service telephone: (888) 514-4558
e-mail address of person responsible for this SDS	:	MSDS@huntsman.com
Emergency telephone number (24h/7day)	:	Chemtrec: (800) 424-9300 or (703) 527-3887

9+

Section 2. Hazards identification

OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	
Classification of the substance or mixture	:	RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1	
GHS label elements			
Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.	
Precautionary statements	:	Wear protective gloves: < 1 hour (breakthrough time): butyl or neoprene. In case of inadequate ventilation wear respiratory protection: Recommended: Respiratory protection, filter P3. Avoid release to the environment. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Collect spillage. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. Dispose of contents and container in accordance with all	

Section 2. Hazards identification

local, regional, national and international regulations.

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Chromate(2-),[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)][3-[(4, 5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato(3-)]-, disodium	13 - 30	56819-40-0
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl)amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2,5-dichlorobenzenesulfonate	3 - 7	70247-70-0
white mineral oil PARAFFIN OILS	1 - 3 1 - 3	8042-47-5 8012-95-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation. **Occupational exposure limits, if available, are listed in Section 8.**

Section 4. First aid measures

Description of necessary first	aid measures
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
Skin contact	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion FAR	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Eye contact	: No known significant effects or critical hazards.
Inhalation	 May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
<u>Over-exposure signs</u>	s/symptoms
Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: wheezing and breathing difficulties asthma
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Notes to physician	 No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	: Closed cup: Not applicable.
Extinguishing media	
Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Not explosive

Section 6. Accidental release measures

Personal precautions, protectiv	ve equipment and emergency procedures
For non-emergency : personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders :	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions :	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Methods and materials for : containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage



Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, : including any incompatibilities

Section 7. Handling and storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters				
Occupational exposure limits				
Ingredient name		Exposure limits		
Chromate(2-) ,[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)][3-[(4, 5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato(3-)]-, disodium PARAFFIN OILS		OSHA PEL (United States, 2/2013). TWA: 0.5 mg/m ³ , (as Cr) 8 hours. ACGIH TLV (United States, 6/2013). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours.		
Appropriate engineering controls	vapor or mist, use process enclos controls to keep worker exposure recommended or statutory limits.	n. If user operations generate dust, fumes, gas, sures, local exhaust ventilation or other engineering to airborne contaminants below any		
Environmental exposure controls	they comply with the requirement cases, fume scrubbers, filters or cases.	k process equipment should be checked to ensure s of environmental protection legislation. In some engineering modifications to the process educe emissions to acceptable levels.		
Individual protection measured	res x ?			
Hygiene measures	eating, smoking and using the law Appropriate techniques should be Contaminated work clothing shou	thoroughly after handling chemical products, before vatory and at the end of the working period. e used to remove potentially contaminated clothing. Ild not be allowed out of the workplace. Wash sing. Ensure that eyewash stations and safety tion location.		
Eye/face protection	assessment indicates this is nece gases or dusts. If contact is poss	n approved standard should be used when a risk essary to avoid exposure to liquid splashes, mists, sible, the following protection should be worn, a higher degree of protection: safety glasses with		
Hand protection	be worn at all times when handlin this is necessary. Considering th check during use that the gloves should be noted that the time to b different for different glove manuf	loves complying with an approved standard should in chemical products if a risk assessment indicates e parameters specified by the glove manufacturer, are still retaining their protective properties. It preakthrough for any glove material may be facturers. In the case of mixtures, consisting of n time of the gloves cannot be accurately gh time): butyl or neoprene		
Body protection	:			

Section 8. Exposure controls/personal protection

Thermal hazards	: Not available.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P3
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 9. Physical and chemical properties

<u>Appearance</u>		Solid. [granules] Brown. Odorless. Not applicable. 6 to 6.5 [Conc. (% w/w): 2%] Not available. Not available. Closed cup: Not applicable. Not applicable.
Physical state	1	Solid. [granules]
Color	3	Brown.
Odor	3	Odorless.
Odor threshold	3	Not applicable.
рН	3	6 to 6.5 [Conc. (% w/w): 2%]
Melting point/Freezing point	1	Not available.
Boiling/condensation point	1	Not available.
Flash point	;	Closed cup: Not applicable.
Evaporation rate	;	Not applicable.
Flammability (solid, gas)	1	Not available.
Lower and upper explosive (flammable) limits	:	Not available. Not available.
Vapor pressure	1	Not available.
Vapor density	;	Not available.
Relative density	-	Not available.
Solubility in water	:	Not available.
Water Solubility Result	;	80 g/l 30 deg C
Partition coefficient: n-	:	Not available.
octanol/water		
Auto-ignition temperature	÷	Not available.
Decomposition temperature	÷	>200°C (>392°F)
Ignition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	:	280 °C
Explosive properties	:	Not explosive
Oxidizing properties	:	None.
Density	:	0.8 to 0.9 g/cm³ [20°C (68°F)]
Viscosity	1	Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
PARAFFIN OILS	-	LC50 Inhalation Dusts and mists	Rat	2062 mg/l
	-	LD50 Oral	Rat	22000 mg/kg
LANASET ORANGE RN	-	LD50 Oral	Rat	>5000 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
LANASET ORANGE RN	45	Rabbit Rabbit	Eyes - Non-irritant. Skin - Non-irritant.

Conclusion/Summary

Skin

Non-irritating to the skin.

Chromate(2-),[2, No additional information. 4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3Hpyrazol-3-onato(2-)][3-[(4, 5-dihydro-3-methyl-5-oxo-1-phenyl-1Hpyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato (3-)]-, disodium Sodium 4-(4-((5-(No additional information. (2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate white mineral oil No additional information. PARAFFIN OILS No additional information.

Eyes : Non-irritating to the eyes.

01	((0) 50	
4-((2- az py ^{5-di} azo	hromate(2-),[2, dihydro-4-[-hydroxy-5-nitrophenyl) co]-5-methyl-2-phenyl-3H- rrazol-3-onato(2-)][3-[(4, iihydro-3-methyl-5-oxo-1-phenyl-1H- rrazol-4-yl) o]-2-hydroxy-5-nitrobenzenesulfonato -)]-, disodium	No additional information.
(2- an azo	odium 4-(4-((5-(-Bromo-1-oxo-2-propenyl) nino)-2-sulfophenyl) o)-3-methylpyrazolon-1-yl)-2, dichlorobenzenesulfonate	No additional information. No additional information. No additional information.
		No additional information. No additional information.
4-((2- az py ^{5-di} py azo	hromate(2-),[2, dihydro-4-[-hydroxy-5-nitrophenyl) co]-5-methyl-2-phenyl-3H- rrazol-3-onato(2-)][3-[(4, ihydro-3-methyl-5-oxo-1-phenyl-1H- rrazol-4-yl) o]-2-hydroxy-5-nitrobenzenesulfonato -)]-, disodium	No additional information.
(2- an azo 5-o wh	-Bromo-1-oxo-2-propenyl) nino)-2-sulfophenyl) o)-3-methylpyrazolon-1-yl)-2, dichlorobenzenesulfonate nite mineral oil	No additional information. No additional information. No additional information.
ensitization	150 A 50	

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing
LANASET ORANGE RN	-	skin	Guinea pig	Sensitizing

Conclusion/Summary

Respiratory

This dyestuff contains C.I. Reactive Yellow 39 for which cases of respiratory sensitisation have been observed. Care should be taken to avoid inhalation. Consult a physician immediately if symptoms such as shortness of breath or asthma are observed. Should an individual become sensitized a physician should be consulted and all contact with reactive dyes must cease immediately.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Carcinogenic class

Product/ingredient name	IARC	OSHA
Chromate(2-) ,[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)][3-[(4, 5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato(3-)]-, disodium	3	-
Reproductive toxicity		
Not available.		CE 1969
<u>Teratogenicity</u>		
Not available.		
Not available. <mark>Specific target organ toxicity (single exposure)</mark> Not available.		S SINC
<u>Specific target organ toxicity (single exposure)</u> Not available.		ANKS SINC
<u>Specific target organ toxicity (single exposure)</u>		BLANKS SINC
<u>Specific target organ toxicity (single exposure)</u> Not available. <u>Specific target organ toxicity (repeated exposure)</u>		S BLANKS SINC
Specific target organ toxicity (single exposure) Not available. Specific target organ toxicity (repeated exposure) Not available.		C BLANKS SINC

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure) Not available.

Specific target organ toxicity (repeated exposure)

Aspiration hazard

Product/ingredient name	Result
white mineral oil	ASPIRATION HAZARD - Category 1

Information on the likely : Not available. routes of exposure

458 Potential acute health effects : No known significant effects or critical hazards. Eye contact Inhalation 5 May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Skin contact May cause an allergic skin reaction. No known significant effects or critical hazards. Ingestion Symptoms related to the physical, chemical and toxicological characteristics Eye contact No specific data. Inhalation Adverse symptoms may include the following: wheezing and breathing difficulties asthma **Skin contact** Adverse symptoms may include the following: irritation redness Ingestion : No specific data. Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure **Potential** : Not available. immediate effects **Potential delayed** : Not available. effects

Long term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects

Section 12. Ec	ological information
Other information	: Not available.
Not available.	
Acute toxicity estimat	tes v v v v v v v v v v v v v v v v v v v
Numerical measures o	f toxicity
Fertility effects	: No known significant effects or critical hazards.
effects	. No known significant cricets of childar hazards.
Developmental	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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Section 12. Ecological information

Toxicity					•		
Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>189	mg/l
inter la company	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
PARAFFIN OILS	Unknown guidelines Not known	Acute	LC0	96 hours	Fish	>1000	mg/l
5 CO BRIT	Unknown guidelines Not known	Acute	LC100	96 hours	Fish	>1000	mg/l
- Ar	Unknown guidelines Not known	Acute	LC50	96 hours	Fish	>1000	mg/l
LANASET ORANGE RN	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	30	mg/l
	- OECD 203 Fish, Acute Toxicity Test	Acute Acute	IC50 LC50	3 hours 96 hours	Bacteria Fish	>400 <1	mg/l mg/l

Conclusion/Summary

: Very toxic to aquatic organisms if run directly to surface waters

Persistence and degradability

Product/ingredient name	Test	Period	Result
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	0 %
LANASET ORANGE RN	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	30 to 40 %
Conclusion/Summary	: Partially eliminated by adsorption onto Sodium 4-(4-((5-(Poorly eli (2-Bromo-1-oxo-2-propenyl) sludge. amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate		udge. n on effluent treatment

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET ORANGE RN Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	-		Not readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	-3.3	5	low

Mobility in soil

Not available.

Other adverse effects

No known significant effects or critical hazards.

Other ecological information

mplex

Section 13. Disposal considerations

 Disposal methods
 The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT	4	Environmentally hazardous substance, solid, n.o.s.	(AZO DYESTUFF). Marine pollutant
TDG	:	Environmentally hazardous substance, solid, n.o.s.	(AZO DYESTUFF). Marine pollutant

- **IMDG** : Environmentally hazardous substance, solid, n.o.s. (AZO DYESTUFF). Marine pollutant
- IATA : Environmentally hazardous substance, solid, n.o.s. (AZO DYESTUFF)

Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	UN3077	9	111		-
TDG Classification	UN3077	9	111		-
IMDG Classification	UN3077	9	III		Emergency schedules (EmS) F-A, S-F

Section 14. Transport information

•				
IATA Classification	UN3077	9	III	Passenger and Cargo AircraftQuantity limitation: 400 kgPackaging instructions: 956Cargo Aircraft Only Quantity limitation: 400 kgPackaging instructions: 956

PG* : Packing group

Section 15. Regulatory information

•		
Safety, health and environ	mental regulations specific for the product	Alt.
United States Regulations		A
TSCA 8(b) inventory	: All components are listed or exempted.	
TSCA 5(a)2 final significant new use rule (SNUR)	: No ingredients listed.	NG BLANK
TSCA 5(e) substance consent order	: No ingredients listed.	
TSCA 12(b) export notification	: No ingredients listed.	
SARA 311/312	: Immediate (acute) health hazard	
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Clean Air Act - Ozone	 Product name Chromate(2-),[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)] [3-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H- pyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato(3-)]-, disodium This product does not contain nor is it manufacture 	Concentration % 24.99
Depleting Substances (ODS)	Product name	Concentration 9/
SARA 313 Form R - Reporting requirements	 Chromate(2-) ,[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)] [3-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H- pyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato(3-)]-, disodium 	Concentration % 24.99

Section 15. Regulatory information

Section 13. Reg		Ingredient name	<u>%</u>	Section 304 CERCLA Hazardous Substance	<u>CERCLA</u> <u>Reportable</u> <u>Quantity</u> (Lbs)	<u>Product</u> <u>Reportable</u> <u>Quantity</u> (Lbs)		
CERCLA Hazardous substances	:	Chromate(2-),[2, 4-dihydro-4-[(2-hydroxy-5-nitrophenyl) azo]-5-methyl-2-phenyl-3H- pyrazol-3-onato(2-)][3- [(4, 5-dihydro-3-methyl-5-oxo-1-phenyl-1H- pyrazol-4-yl) azo]-2-hydroxy-5-nitrobenzenesulfonato (3-)]-, disodium		Listed	No RQ assigned	ACE 1969		
State regulations					AL			
PENNSYLVANIA - RTK	:	LANACRON ORANGE S-2R CRUDE MILLED, Mixture of hydrocarbons ex petroleum						
California Prop 65	:	This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.						
Canadian regulations				0				
CEPA DSL	:	All components are list	All components are listed or exempted.					
WHMIS Classes	:	Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).						
		classified in accordance SDS contains all the inf						
			X					
Brazil Regulations		A						
Classification system used	Ś	Norma ABNT-NBR 14	725-2:2012					
International lists		Australia inventory (A China inventory (IEC Japan inventory: All o Korea inventory: All o Malaysia Inventory (E New Zealand Invento exempted.	SC): All compo components ar components ar EHS Register)	onents are listed o e listed or exemp e listed or exemp : Not determined	or exempted. ited. ted.	isted or		

exempted. Philippines inventory (PICCS): All components are listed or exempted. Taiwan inventory (CSNN): Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		0
Physical hazards		0
Personal protection		Х

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection : Association (U.S.A.)	Health 2 0 Flammability Instability Special
Response Copyright © material is not the com	sion from NFPA 704-2001, Identification of the Hazards of Materials for Emergency 1997, National Fire Protection Association, Quincy, MA 02269. This reprinted plete and official position of the National Fire Protection Association, on the ich is represented only by the standard in its entirety.
intended to be interpre reactivity hazards of ch recommended classifie	onal Fire Protection Association, Quincy, MA 02269. This warning system is ted and applied only by properly trained individuals to identify fire, health and nemicals. The user is referred to certain limited number of chemicals with cations in NFPA 49 and NFPA 325, which would be used as a guideline only. Is are classified by NFPA or not, anyone using the 704 systems to classify

chemicals does so at their own risk.	chemicals	does	so at	their	own	risk.
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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Section 16. Other information

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY BER ART SUPPLIES & CLOTHING BLANKS MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO CO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.



LANASET® RED G GR

Section 1. Identification

GHS product identifier	:	LANASET® RED G GR
Product code	1	00043634
Other means of identification	on :	Not available.
Product type	:	Solid.
Relevant identified uses of	the	substance or mixture and uses advised against
Product use		Textile dye
Supplier's details	:	Huntsman International, LLC
		Textile Effects Division
		P.O. Box 4980 The Woodlands, TX 77387
		Customer service telephone: (888) 514-4558
e-mail address of person		MSDS@huntsman.com
responsible for this SDS		
Emergency telephone	1	Chemtrec: (800) 424-9300 or (703) 527-3887
number (24h/7day)		

Section 2. Hazards identification

OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the		AQUATIC HAZADD (LONG TEDM) Cotogon (2
substance or mixture		AQUATIC HAZARD (LONG-TERM) - Category 3
GHS label elements	- 1	
Signal word	1	No signal word.
Hazard statements	:	Harmful to aquatic life with long lasting effects.
Precautionary statements	:	Avoid release to the environment. Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not	:	None known.

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Chromium as Cr(III) organo-metal complex Chromium as Cr(III) organo-metal complex Formaldehyde reaction products with sulfonated diphenylether derivative, Na salt	30 - 60 3 - 7 1 - 3	70209-87-9 67109-27-7 90387-57-8
Any concentration shown as a range is to protect confidentiality or is Occupational exposure limits, if available, are listed in Section		n.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayedPotential acute health effectsEye contact: No known significant effects or critical hazards.

Lycoontaot	
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.

Section 4. First aid measures

Ingestion	: No specific data.
Indication of immediat	e medical attention and special treatment needed, if necessary
Notes to physician	No specific treatment. Treat symptomatically. Call medical doctor or poison control

Notes to physician
 No specific treatment. I reat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
 Protection of first-aiders
 No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	: Closed cup: Not applicable.
Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	 This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Not explosive

Section 6. Accidental release measures

Personal precautions, protect	tive equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	 If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions :	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for : containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Occupational exposure limits	
Ingredient name	Exposure limits
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010). TWA: 0.005 mg/m ³ , (as Cr) 8 hours
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010).
	TWA: 0.5 mg/m³, (as Cr) 8 hours.

Appropriate engineering controls	 Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: Tightly fitting safety goggles
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene
Body protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P2
Thermal hazards	: Not available.

Section 9. Physical and chemical properties

<u>Appearance</u>	5			
Physical state	:	Solid. [granules]		
Color):	Red.		
Odor	:	Odorless.		
Odor threshold	3	Not applicable.		
рН	1	7 to 8 [Conc. (% w/w): 0.1%]		
Melting point/Freezing point	1	Not available.		
Boiling/condensation point	:	Not available.		
Flash point	1	Closed cup: Not applicable.		
Evaporation rate	:	Not applicable.		
Flammability (solid, gas)	:	Not available.		
Lower and upper explosive (flammable) limits	:	Not available.		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	:	Not available.		
Solubility in water	:	Not available.		
Water Solubility Result	1	60 g/l	30	deg C

Section 9. Physical and chemical properties

Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: >180°C (>356°F)
lgnition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	: 480 °C
Explosive properties	: Not explosive
Oxidizing properties	: None.
Density	: 0.466 g/cm³ [20°C (68°F)]
Viscosity	: Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

D1929B	
Explosive properties	: Not explosive
Oxidizing properties	: None.
Density	: 0.466 g/cm³ [20°C (68°F)]
Viscosity	: Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.
Section 10. Stabil	ity and reactivity
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Chromium as Cr(III) organo- metal complex	Unknown guidelines Not known	LD50 Oral	Rat	1720 mg/kg
Chromium as Cr(III) organo- metal complex	Unknown guidelines Not known	LD50 Oral	Rat	>5000 mg/kg
LANASET RED G GR	-	LD50 Oral	Rat	>2000 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Chromium as Cr(III) organo-metal complex	Unknown guidelines Not known	Rabbit	Eyes - Irritant
	Unknown guidelines Not known	Rabbit	Skin - Non-irritant.

Conclusion/Summary

Skin : Non-irritant. OECD 404 Rabbit

	Chromium as Cr(III) organo-metal complex	Non-irritating to the skin.
	Chromium as Cr(III) organo-metal complex	No additional information.
	Formaldehyde reaction products with sulfonated diphenylether derivative, Na salt	No additional information.
Eyes	: Non-irritant. OECD 405 Ra	bbit
	Chromium as Cr(III) organo-metal complex	Irritating to eyes.
	Chromium as Cr(III) organo-metal complex	No additional information.
	Formaldehyde reaction products with sulfonated diphenylether derivative, Na salt	No additional information.
Respiratory	: Chromium as Cr(III) organo-metal complex	No additional information.
	Chromium as Cr(III) organo-metal complex	No additional information.
	Formaldehyde reaction products with sulfonated diphenylether derivative, Na salt	No additional information.

Sensitization

Sensitization					
Product/ingredient name	Test	Route of exposure	Species	Result	
Chromium as Cr(III) organo- metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing	
Chromium as Cr(III) organo- metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing	
LANASET RED G GR	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing	
Mutagenicity					
Not available.					
Carcinogonicity					

Mutagenicity

Carcinogenicity

Not available.

Carcinogenic class

Product/ingredient name	IARC	OSHA
Chromium as Cr(III) organo-metal complex	1	+
Chromium as Cr(III) organo-metal complex	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure) Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely	1	Not available.
routes of exposure		

Potential acute health effects

lot available.	
formation on the likely utes of exposure	: Not available.
otential acute health effe	ects
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

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Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

:	No known significant effects or critical hazards.
<u>`</u>	No known significant effects or critical hazards.
:	No known significant effects or critical hazards.
:	No known significant effects or critical hazards.
:	No known significant effects or critical hazards.
:	No known significant effects or critical hazards.
	: :

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information

: Not available.

 $\langle i \rangle$

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Chromium as Cr(III) organo- metal complex	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	130	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours	Fish	14	mg/l
Chromium as Cr(III) organo- metal complex	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	75.3	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
Formaldehyde reaction products with sulfonated diphenylether derivative, Na salt	OECD 201 Alga, Growth Inhibition Test	Acute	EC50	72 hours	Algae	17	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>100	mg/l
	-	Acute	LC50	96 hours	Fish	>100	mg/l
LANASET RED G GR	-	Acute	IC50	3 hours	Bacteria	>100	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC0	96 hours	Fish	10	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours	Fish	35	mg/l

Conclusion/Summary

: Harmful to aquatic organisms if run directly to surface waters.

Persistence and degradability

Product/ingredient name	Test	Period	Result	
Chromium as Cr(III) organo- metal complex LANASET RED G GR	OECD 302B Inherent Biodegradability Zahn-Wellens/EMPA Test OECD 302B Inherent Biodegradability Zahn-Wellens/EMPA Test		82 % 72 %	
Conclusion/Summary	: Eliminated by adsorption onto effluent treatment sludge. Chromium as Cr(III) Eliminated by adsorption onto effluent treatment sludge. organo-metal complex			

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET RED G GR Chromium as Cr(III) organo- metal complex	-	-	Not readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Product/ingredient name	LUGFow	DCF	Fotential
metal complex Chromium as Cr(III) organo-	<3 5.06	-	low high
metal complex			

Mobility in soil

Other ecological information

Not available.				
Other adverse effects	:	No known	significant	effects or critical hazards.
Other ecological information				
BOD5	:	30	mgO2/g	
COD	:	665	mgO2/g	5
тос	:	21.5	%	
Organohalogen content	:	0.4	%	Chloro
Phosphorus Content	1	0	%	
Nitrogen Content	1	7.7	%	
Metal Content	:	3	%	Chromium as Cr(III) organo-metal complex

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

		-	
DOT	- 4	Not regu	lated.

- TDG : Not regulated.
- : Not regulated. IMDG
- ΙΑΤΑ : Not regulated.

Section 14. Transport information

Regulatory information	UN number	Classes	PG*	Label	Additional information	
DOT Classification	Not regulated.	-	-		-	
TDG Classification	Not regulated.	-	-		-	
IMDG Classification	Not regulated.	-	-			69
IATA Classification	Not regulated.	-	-			

Section 15. Regulatory information

Safety, health and environmenta	I regulations	specific for the product

United States Regulations

PG* : Packing grou	up gu
Section 15. Reg	ulatory information
Safety, health and environ	mental regulations specific for the product
United States Regulations	
TSCA 8(b) inventory	: All components are listed or exempted.
TSCA 5(a)2 final significant new use rule (SNUR)	 Ilatory information mental regulations specific for the product All components are listed or exempted. No ingredients listed. No ingredients listed. No ingredients listed. No ingredients listed.
TSCA 5(e) substance consent order	: No ingredients listed.
TSCA 12(b) export notification	: No ingredients listed.
SARA 311/312	: Not classified.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	Product nameConcentration %: Chromium as Cr(III) organo-metal complex37.138Chromium as Cr(III) organo-metal complex6.567
Clean Air Act - Ozone Depleting Substances (ODS)	: This product does not contain nor is it manufactured with ozone depleting substances.
- ABN	Product name <u>Concentration %</u>
SARA 313 Form R - Reporting requirements	: Chromium as Cr(III) organo-metal complex 37.138 Chromium as Cr(III) organo-metal complex 6.567
CERCLA Hazardous	Ingredient name%Section 304 CERCLA Hazardous SubstanceCERCLA Reportable Quantity (Lbs)Product Reportable Quantity (Lbs)

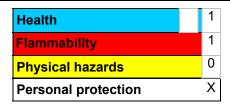
substances

Section 15. Regulatory information

Section 13. Regu	natory informat				
	Chromium as Cr(III)	37.1379	Listed	No RQ	
	organo-metal complex		Listad	assigned	
	Chromium as Cr(III) organo-metal complex	6.567	Listed	No RQ assigned	
	Triphosphoric acid,	1.4103	Listed	5000	354534
	pentasodium salt;				
	Triphosphoric acid,				
	sodium salt (1:5);				
	Sodium phosphate; Pentasodium				
	tripolyphosphate				
					NCE 1969
State regulations					17
PENNSYLVANIA - RTK	: Chromium as Cr(III) or	rgano-metal co	omplex. Triphos	phoric acid, penta	asodium salt:
	Triphosphoric acid, so tripolyphosphate, Sodi	dium salt (1:5)	; Sodium phosp	hate; Pentasodiu	ım
California Prop 65	: WARNING: This produce cancer and birth defection				alifornia to cause
	Ingredient name	Cance	er <u>Reproc</u>	<u>luctive</u>	
	Chromium as Cr(III) or	rgano- Yes.	Yes.		
	metal complex PARAFFIN OILS	Yes.	No.		
			C.		
		e e	-		
Canadian regulations					
CEPA DSL	: All components are lis				
WHMIS Classes	: Not controlled under V		•		
•	n classified in accordance ISDS contains all the int				
Brazil Regulations					
Classification system	: Norma ABNT-NBR 14	4725-2:2012			
used					
1 A 4					
International lists	+ Australia inventory (nonente are list	ed or exempted	
International ists	China inventory (IEC				
- Br	Japan inventory: All of				
	Korea inventory: All o				
2010	Malaysia Inventory (I				Pata da a
	New Zealand Invento exempted.	ory of Chemic	ais (nzioc): All	components are	listed or
	Philippines inventory	(PICCS): No	t determined.		
I	Taiwan inventory (CS				

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)	: Flammability
,	Health 1 0 Instability
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: 1/27/2014.
: 1/27/2014.
: 7/1/2013.
: 2

Indicates information that has changed from previously issued version.

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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Section 16. Other information

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY RM. MAN.M. MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO CO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

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LANASET® BLUE 2R

Version	Revision Date:	S
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SDS Number: 100001005647

Date of last issue: -Date of first issue: 07/07/2015

SECTION 1. IDENTIFICATION

Product name	: LANASET® BLUE 2R
Manufacturer or supplier's de	etails
Company name of supplier Address	 Huntsman International LLC P.O. Box 4980 The Woodlands, TX 77387 United States of America
Telephone	: Cust ser: (888) 514 4558
E-mail address of person responsible for the SDS	: MSDS@huntsman.com
Emergency telephone	: Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use

Recommended use

: Textile dyes, finishing and impregnating products; including bleaches and other processing aids

SECTION 2. HAZARDS IDENTIF	SECTION 2. HAZARDS IDENTIFICATION				
GHS Classification	2 PM				
Skin sensitization	: Category 1				
Acute aquatic toxicity	: Category 3				
Chronic aquatic toxicity	Category 3				
GHS Label element					
Hazard pictograms					
Signal Word	: Warning				
Hazard Statements	: H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.				
Precautionary Statements	 Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P272 Contaminated work clothing must not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. 				

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ersion .0	Revision Date: 07/07/2015	SDS Number: 400001005647	Date of last issue: - Date of first issue: 07/07	/2015
		P333 + P313 I attention. Disposal:	ontaminated clothing before re f skin irritation or rash occurs	: Get medical advic
			of contents and container in a national and international re	
	r hazards e known.			
ECTION	3. COMPOSITION/II	NFORMATION ON INC	GREDIENTS	A NACE
	tance / Mixture	: Mixture		ILS SI
	rdous ingredients			
	nical Name			Concentration (%)
bis[[(2	hracenesulfonic acid 2-chloroacetyl)amino] thylphenyl]amino]-9,1			30 - 60
.kapp		azenylkappa.N1]-2,4-	72017-66-4	0.1 - 1
	iro-5-metnyi-2-pnenyi	I-3H-pyrazol-3-onat		
		I-3H-pyrazol-3-onat	S S	
ECTION	4. FIRST AID MEAS	SURES : Move out of da Show this mate attendance.	S.	doctor in
ECTION	4. FIRST AID MEAS	SURES Move out of da Show this mate attendance. Do not leave th Control Control Control Do not leave the Control Contro	angerous area. erial safety data sheet to the ne victim unattended. air.	er artificial
ECTION Gene	4. FIRST AID MEAS	SURES : Move out of da Show this mata attendance. Do not leave th : If inhaled Move to fresh Keep respirato If breathing is respiration. If symptoms po If unconscious advice. : In case of skin Wash off immer minutes. If skin irritation	angerous area. erial safety data sheet to the ne victim unattended. air. ory tract clear. irregular or stopped, administ ersist, call a physician. place in recovery position ar	er artificial nd seek medical or at least 15
ECTION Gene If inha	4. FIRST AID MEAS eral advice aled	SURES : Move out of da Show this mata attendance. Do not leave th : If inhaled Move to fresh Keep respirator If breathing is respiration. If symptoms por If unconscious advice. : In case of skin Wash off immer minutes. If skin irritation Wash contami : In case of eye Flush eyes wit Remove conta	angerous area. erial safety data sheet to the ne victim unattended. air. ory tract clear. irregular or stopped, administ ersist, call a physician. place in recovery position ar contact ediately with plenty of water for persists, call a physician. nated clothing before re-use. contact h water as a precaution.	er artificial nd seek medical or at least 15

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		consult a physici Never give anyth	an. ning by mouth to an unconscious person.
	important symptoms effects, both acute and /ed	: May cause an al	lergic skin reaction.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	No data is available on the product itself.
		Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	No hazardous combustion products are known
		No data is available on the product itself.
Specific extinguishing methods	1	No data is available on the product itself.
Further information	2	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must
1 2 8	.v	be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	 Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Environmental precautions	 Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

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Advice on protection against fire and explosion			mation. Provide appropriate exhaust ventilation e dust is formed.	
Advid	ce on safe handling	 Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. 		
Conc	ditions for safe storage	 ge : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed a kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards. 		
Mate	rials to avoid	: No hazardous	decomposition products are known.	

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	P2 filter
Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection Material Break through time		Neoprene gloves < 1 h
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.



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Eye protection		: Eye wash bottle with pure water Tightly fitting safety goggles.			
Skin and body protection		: Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.			
Hygiene measures		: Wash hands before breaks and at the end of workday.			
SECTION	9. PHYSICAL AND C	HEMICAL PROPERT	TIES		
Appe	arance	: powder			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance		powder dark blue odorless
Color		dark blue
Odor Odor Threshold pH		odorless
		No data is available on the product itself.
		7 - 7.5, Concentration: 20 g/l
Flash point	:	No data is available on the product itself.
Evaporation rate	:	No data is available on the product itself.
Flammability (solid, gas)		No data is available on the product itself.
Burning rate		Product resists ignition and does not promote flame spread.
	Ö	Product resists ignition and does not promote flame spread.
Upper explosion limit	P :	No data is available on the product itself.
Lower explosion limit		No data is available on the product itself.
Vapor pressure		No data is available on the product itself.
Relative vapor density		No data is available on the product itself.
Relative density		No data is available on the product itself.
Density	:	0.578 g/cm3 Bulk density
Solubility(ies) Water solubility	:	100 g/l (30 °C)
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n- octanol/water	:	No data is available on the product itself.
Autoignition temperature	:	No data is available on the product itself.

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Decomposition temperature		: > 200 °C			
Viscosity		: No data is available on the product itself.			
Oxidizing properties		: None.			
Self-Accelerating decomposition temperature (SADT)		: No data is ava	ailable on the product itself.		
Impact sensitivity		: Not impact se	nsitive.		

SECTION 10. STABILITY AND REACTIVITY

Reactivity Chemical stability Possibility of hazardous reactions	 No decomposition if stored and applied as directed. No decomposition if stored and applied as directed. None known. Stable under normal conditions.
	No decomposition if stored and applied as directed.
	Dust may form explosive mixture in air.
Conditions to avoid	: None.
	No data available
Hazardous decomposition products	: Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: No data is available on the product itself.
Acute toxicity Acute oral toxicity - Product	: LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: No data available
Acute toxicity (other routes of	: No data available

administration)

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Product dust may be irritating to eyes, skin and respiratory system.

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Respir	atory or skin sensitiz	ation	
Produ	<u>ct:</u>		
	of exposure: Skin		
	s: Guinea pig d: OECD Test Guidelin	o 406	
	Causes sensitization.	e 400	
_			
Remar	ks: Causes sensitizatio	on.	
Assess	sment:	No data available	
-			
	cell mutagenicity	. No dete evelleti	
Genoto	oxicity in vitro	: No data availabl	e
Genoto	oxicity in vivo	: No data availabl	e ov
_			G
	ogenicity		
No dat	a available		
Carcin	ogenicity -	: No data availabl	e
Assess	sment		
IARC		No ingredient of thi	s product present at levels greater than or
		equal to 0.1% is ide	entified as probable, possible or confirmed
		human carcinogen	by IARC.
ACGI	4		s product present at levels greater than or
			entified as a carcinogen or potential
		carcinogen by ACG	и п .
OSHA			s product present at levels greater than or
1		equal to 0.1% is ide carcinogen by OSH	entified as a carcinogen or potential
NTP			s product present at levels greater than or
0,2		by NTP.	entified as a known or anticipated carcinoge
Repro	ductive toxicity		
Effects	on fertility	: No data availabl	e
Effects	on fetal development	: No data availabl	e
Reproc	ductive toxicity -	: No data availabl	e
Assess			
STOT-	single exposure		

No data available

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	-repeated exposu	re	
NO da	ata available		
Repe	ated dose toxicity		
No da	ata available		
	ated dose toxicity - ssment	: No data available	
Aspir	ation toxicity		
-	ata available		S SIN
Expe	rience with humar) exposure	5
-	ral Information:	No data available	
		N I 17 111	Bhi
Inhala	ation:	No data available	A A A
Skin o	contact:	No data available	
Evo o	ontact:	No data available	0,
суе с	ontact:	NO GALA AVAIIADIE	er C
Inges	tion:	No data available	
Toxic	ology, Metabolisn	n. Distribution	
	ata available	L'ANT	
Nour			
	ological effects ata available	P	
· · ·		EP.	
Furth	er information		
<u>Produ</u>			
Rema	arks: No data availa	ble	
4			
CTION	12. ECOLOGICAL	INFORMATION	
	1		
Ecoto	oxicity		
	oxicity ity to fish - Product	: LC0: 30 mg/l Exposure time: 9	

LC50: 68 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l

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aqua Proc	atic invertebrates - luct		Exposure time: 48 Method: OECD To	
Тохі	city to algae	:	No data available	
M-F toxic	actor (Acute aquatic sity)	:	No data available	~O*
Toxi toxic	city to fish (Chronic city)	:	No data available	
aqua	city to daphnia and other atic invertebrates ronic toxicity)	:	No data available	C BLANKS
M-F toxic	actor (Chronic aquatic city)	:	No data available	ANK
Тохі	city to bacteria - Product	:	IC50: > 400 mg/l Exposure time: 3 Method: OECD Te	h est Guideline 209
	city to soil dwelling inisms	:	No data available	CLOT!
Plan	t toxicity	:	No data available	9
Sed	iment toxicity	÷	No data available	
	city to terrestrial inisms		No data available	
	toxicology Assessment te aquatic toxicity	K	No data available	
Chro	onic aquatic toxicity	:	No data available	
Тохі	city Data on Soil	:	No data available	
	er organisms relevant to environment	:	No data available	
	her information: lata available			
Pers	sistence and degradabili	ity		
Bioc	legradability - Product	:	Biodegradation: 2 Exposure time: 28 Method: OECD To	
	hemical Oxygen nand (BOD) - Product	:	20 mgO2/g	
	mical Oxygen Demand	:	1230 mgO2/g	
	D) - Product D/COD	:	No data available	



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ThOD		: No data availat	ble
BOD/	ThOD	: No data availat	ble
Disso (DOC	lved organic carbon)	: No data availat	ble
	co-chemical /ability	: No data availat	ble
Stabil	ity in water	: No data availat	ble
Photo	degradation	: No data availat	ble
Impac Treatr	rt on Sewage nent	: No data availat	ole ole ole ole
Bioac	cumulative potential		G ^V
Bioac	cumulation	: No data availat	le
Ingre	dients:		
trimet Partiti	hracenesulfonic acid, 1- hylphenyl]amino]-9,10-(on coefficient: n- ol/water	lihydro-9,10-dioxo-, : : log Pow: < 3 (2	-chloroacetyl)amino]methyl]-2,4,6- 0 °C) ormation available.
dihydr Partiti	nate(2-), [4-[2-[5-chloro ro-5-methyl-2-phenyl-3h on coefficient: n- ol/water	I-pyrazol-3-onat: : log Pow: < 3 (2	0)-3-nitrophenyl]diazenylkappa.N1]-2,4- 0 °C) ormation available.
Mobil	ity in soil	P	
Mobili	ty	: No data availat	ble
	oution among Inmental compartments	: No data availat	ble
Stabil	ity in soil	: No data availat	ble
Other	adverse effects		
	onmental fate and	: No data availat	ble
	ts of PBT and vPvB sment	: No data availat	ble
Endo	crine disrupting	: No data availat	ble
poten	tial		



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Haza	rdous to the ozone lay	/er	
Ozon	e-Depletion Potential	Protection of S Substances Remarks: This manufactured	CFR Protection of Environment; Part 82 tratospheric Ozone - CAA Section 602 Class I product neither contains, nor was with a Class I or Class II ODS as defined by the Act Section 602 (40 CFR 82, Subpt. A, App.A +
	ional ecological nation - Product	unprofessional	ntal hazard cannot be excluded in the event of handling or disposal. atic life with long lasting effects.
Globa (GWI	al warming potential ^{>})	: No data availa	ble

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION

International Regulation

ΙΑΤΑ

Not regulated as a dangerous good

IMDG

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable for product as supplied.

Domestic regulation

DOT Classification

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION



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TSCA - 5(a) Significant New : Not relevant **Use Rule List of Chemicals**

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)		
SODIUM TRIPOLYPHOSPHATE	7758-29-4	5000	*		
*: Calculated RQ exceeds reasonably attainable upper limit.					
SARA 311/312 Hazards : Acute Health Hazard					

SARA 311/312 Hazards	: Acute Health Hazard No SARA Hazards
SARA 313	: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Pennsylvania Right To Know

2-Anthracenesulfonic acid, 1-amino-4-[[3,5- bis[[(2-chloroacetyl)amino]methyl]-2,4,6- trimethylphenyl]amino]-9,10-dihydro-9,10- dioxo-,	80010-51-1	50 - 70 %
Dextrin	9004-53-9	20 - 30 %
Water	7732-18-5	5 - 10 %
Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	9084-06-4	5 - 10 %
Triphosphoric acid, sodium salt (1:5)	7758-29-4	1 - 5 %

California Prop 65

WARNING! This product contains a chemical known in the State of California to cause cancer

State of California to cause of	Jancer.
Quinoline	91-22-5
Paraffin oil	8012-95-1
Formaldehyde	50-00-0
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7

The ingredients of	f this product are reported in the following inventories:
TSCA	: On the inventory, or in compliance with the inventory
DSL	: This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
	: LANASET® YELLOW 4GN
AICS	: On the inventory, or in compliance with the inventory

Enriching lives through innovation

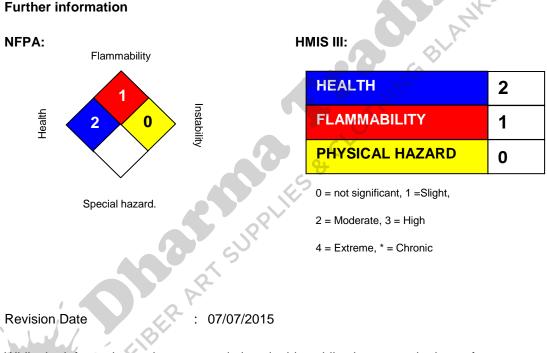
HUNTSMA

LANASET® BLUE 2R

Version 1.0	Revision Date: 07/07/2015	SDS Number: 400001005647	Date of last issue: - Date of first issue: 07/07/2015
NZIO	C		ry, or in compliance with the inventory R CC GRANULES
ENCS	5	: On the inventor	ry, or in compliance with the inventory
ISHL			ry, or in compliance with the inventory
KECI			ry, or in compliance with the inventory
PICC	S	: On the inventor	ry, or in compliance with the inventory
IECS	С	: On the inventor	ry, or in compliance with the inventory
Inver	ntories		
AICS	(Australia), DSL (Can	ada), IECSC (China),	REACH (European Union), ENCS (Japan),

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION



While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE. THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

HUNTSMAN

LANASET® BLUE 2R

Version 1.0

Revision Date: 07/07/2015 SDS Number: 400001005647

Date of last issue: -Date of first issue: 07/07/2015

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LANASET® BLUE 5G

1. Product and company identification

Product name Material uses Chemical family	 LANASET® BLUE 5G Textile dye Anthraquinone dye preparation
MSDS #	: 00041694
Validation date	: 6/10/2013.
Supplier/Manufacturer	: Huntsman International, LLC Textile Effects Division P.O. Box 4980
	The Woodlands, TX 77387
	Customer service telephone: (888) 514-4558
e-mail address of person responsible for this SDS	: MSDS@huntsman.com

In case of emergency (24h/7day) : Chemtrec: (800) 424-9300 or (703) 527-3887

ϑ

Section 2. Hazards identification

Physical state	blid. [Powder]	
Odor	dorless.	
Color	ue.	
OSHA/HCS status	his material is considered hazardous by the OSHA Hazard Communication andard (29 CFR 1910.1200).	
Classification of the substance or mixture <u>GHS label elements</u>	ERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A QUATIC TOXICITY (CHRONIC) - Category 2	
Hazard pictograms		
Signal word	'arning	
Hazard statements	auses serious eye irritation. oxic to aquatic life with long lasting effects.	
Precautionary statements	Year eye or face protection: Recommended: Tightly fitting safety goggles. A lease to the environment. Wash hands thoroughly after handling. Collect IN EYES: Rinse cautiously with water for several minutes. Remove containses, if present and easy to do. Continue rinsing. If eye irritation persists: edical attention. Dispose of contents and container in accordance with all gional, national and international regulations.	spillage. act Get
Other hazards which do not result in classification	one known.	

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Sodium [[(Chloroacetyl)amino]methyl][4-[[4-(cyclohexylamino)-9, 10-dihydro-9,10-dioxo-1-anthracenyl]amino]phenoxy] methylbenzenesulfonic acid	60 - 100	72391-24-3
Cumene-4-sulfonic acid sodium salt	7 - 13	28348-53-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation. Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Notes to physician	No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
See toxicological information	(Section 11)
Section 5 Fire-figh	ting measures

S

ection 5. Fire-fighting measures

Flash point	: Closed cup: Not applicable.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
Extinguishing media Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
6/40/2042	00044604

Section 5. Fire-fighting measures

Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Not explosive

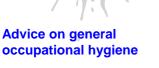
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures			
For non-emergency personnel	•	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".	
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.	
Methods and materials for containment and cleaning up		Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.	

Section 7. Handling and storage

Precautions for safe handling

Protective measures



- : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, : including any incompatibilities

Section 7. Handling and storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

•	· · ·	
Control parameters		
Appropriate engineering controls	o special ventilation requirements. Good general ventilation should be ontrol worker exposure to airborne contaminants. If this product contai gredients with exposure limits, use process enclosures, local exhaust her engineering controls to keep worker exposure below any recomme atutory limits.	ns ventilation or
Environmental exposure controls	missions from ventilation or work process equipment should be checked ey comply with the requirements of environmental protection legislation uses, fume scrubbers, filters or engineering modifications to the process puipment will be necessary to reduce emissions to acceptable levels.	n. In some
Individual protection measu		
Hygiene measures	ash hands, forearms and face thoroughly after handling chemical proc ting, smoking and using the lavatory and at the end of the working per opropriate techniques should be used to remove potentially contaminat ash contaminated clothing before reusing. Ensure that eyewash static fety showers are close to the workstation location.	iod. ed clothing.
Eye/face protection	afety eyewear complying with an approved standard should be used where sessment indicates this is necessary to avoid exposure to liquid splases or dusts. If contact is possible, the following protection should be balases the assessment indicates a higher degree of protection: chemicates or ggles. Recommended: Tightly fitting safety goggles	nes, mists, worn,
Hand protection	hemical-resistant, impervious gloves complying with an approved stand worn at all times when handling chemical products if a risk assessme is is necessary. Considering the parameters specified by the glove ma neck during use that the gloves are still retaining their protective proper hould be noted that the time to breakthrough for any glove material may ferent for different glove manufacturers. In the case of mixtures, considered weral substances, the protection time of the gloves cannot be accurate timated. < 1 hour (breakthrough time): butyl or neoprene	nt indicates anufacturer, ties. It / be isting of
Body protection	ersonal protective equipment for the body should be selected based or ing performed and the risks involved and should be approved by a spo fore handling this product.	
Other skin protection	opropriate footwear and any additional skin protection measures should elected based on the task being performed and the risks involved and supproved by a specialist before handling this product.	
Respiratory protection	se a properly fitted, particulate filter respirator complying with an appro andard if a risk assessment indicates this is necessary. Respirator set based on known or anticipated exposure levels, the hazards of the pr e safe working limits of the selected respirator. Recommended: Respirator otection, filter P1	ection must oduct and

Section 9. Physical and chemical properties

-	
Appearance	
Physical state	: Solid. [Powder]
Color	: Blue.
Odor	: Odorless.
Odor threshold	: Not applicable.
рН	: 8 to 8.6 [Conc. (% w/w): 2%]
Melting point/Freezing point	: Not available.
Boiling/condensation point	: Not available.
Flash point	: Closed cup: Not applicable.
Evaporation rate	: Not applicable.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	 Not available. Not available. Not available. Not available. Not available.
Vapor pressure	: Not available.
Vapor density	Not available.
Specific gravity	: Not available.
Water Solubility	: 65 g/l 30 deg C
Partition coefficient: n- octanol/water	 Not available. Not available. Not available. >180°C (>356°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: >180°C (>356°F)
Ignition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	: 440 °C
Explosive properties	: Not explosive
Oxidizing properties	: None.
Viscosity	: Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl]	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat	>2000 mg/kg
amino]phenoxy] methylbenzenesulfonic acid Cumene-4-sulfonic acid sodium salt	-	LD50 Dermal	Rabbit	>2000 mg/kg
	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat	>7000 mg/kg
LANASET BLUE 5G	-	LD50 Oral	Rat	>5000 mg/kg

Product/ingredient name	Test	Species	Result
LANASET BLUE 5G	-	Rabbit	Skin - Non-irritant.

Conclusion/Summary		
Skin	Non-irritating to the skin.	
	Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy] methylbenzenesulfonic acid Cumene-4-sulfonic acid	No known significant effects or critical hazards.
	sodium salt	No known significant checks of childa hazards.
Eyes	: Irritating to eyes. Classificat GHS]	tion according to Regulation (EC) No. 1272/2008 [CLP/
Shi Jok	Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy] methylbenzenesulfonic acid	No known significant effects or critical hazards.
FABRIC	Cumene-4-sulfonic acid sodium salt	No known significant effects or critical hazards.
Respiratory	: Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy]	No known significant effects or critical hazards.
	methylbenzenesulfonic acid Cumene-4-sulfonic acid sodium salt	No known significant effects or critical hazards.

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy] methylbenzenesulfonic acid	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing
Cumene-4-sulfonic acid sodium salt	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing
LANASET BLUE 5G	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing

Potential acute health effects

otential acute health	n effects
Eye contact	: Causes serious eye irritation.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: Irritating to mouth, throat and stomach.

Potential chronic health effects

ingestion	: Innaung to mouth, throat and stomach.
otential chronic healt	effects
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Section 12. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl]	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>78	mg/l
amino]phenoxy]							
methylbenzenesulfonic acid							
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>300	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	1.3	mg/l
Cumene-4-sulfonic acid sodium salt	DIN DIN 38412 Part	Acute	IC50	48 hours	Bacteria	>1000	mg/l
	DIN DIN 38412 (Lumistox test)	Acute	LC0	48 hours	Fish	>1000	mg/l
	Unknown guidelines Not known	Chronic	EC50	21 days	Daphnia	154	mg/l
	Unknown guidelines	Chronic	NOEC	21 days	Daphnia	>30	mg/l
	•			•	•	•	_ / / -

LANASET BLUE 5G	Not known OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>78	mg/l
	- OECD 203 Fish, Acute Toxicity Test	Acute Acute	IC50 LC50	3 hours 48 hours	Bacteria Fish	>300 4.4	mg/l mg/l

: Toxic to aquatic organisms if run directly to surface waters. **Conclusion/Summary**

Persistence and degradability

Product/ingredient name	Test	Period	Result	
Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy] methylbenzenesulfonic acid	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	28 days	40 %	
LANÁSET BLUE 5G	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	28 days	40 to 50 %	
Conclusion/Summary	: Partially eliminated by adsorption onto effluent treatment sludge.			

: Partially eliminated by adsorption onto effluent treatment sludge. Cumene-4-sulfonic acid Eliminated by biodegradation sodium salt

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET BLUE 5G Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy] methylbenzenesulfonic acid	- SUPPLIE	- C*	Not readily Not readily
Bioaccumulative potential	AR		

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Sodium [[(Chloroacetyl) amino]methyl][4-[[4- (cyclohexylamino)-9, 10-dihydro-9, 10-dioxo-1-anthracenyl] amino]phenoxy] methylbenzenesulfonic acid	<3	-	low

Other adverse effects

: No known significant effects or critical hazards.

Other ecological information

BOD5	: 0	mgO2/g
COD	: 1100	mgO2/g
тос	: 37.5	%
Organohalogen content	: 3.7	% Chloro
Phosphorus Content	: 0	%
Nitrogen Content	: 0.00295	%

: Metal content under the ETAD recommended limits.

Section 13. Disposal considerations

 Disposal methods
 The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT	: Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF). Marine pollutant
TDG	: Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF) Marine pollutant
IMDG	: Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF) Marine pollutant

15° 45°

IATA : Environmentally hazardous substance, solid, n.o.s. (ANTHRAQUINONE DYESTUFF)

Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	UN3077	9	111		Only regulated in Bulk Marine Pollutant
TDG Classification	UN3077	9			Only regulated in Bull Marine pollutant
IMDG Classification	UN3077	9	III		<u>Emergency</u> <u>schedules (EmS)</u> F-A, S-F

Section 14. Transport information

· · · · · · · · · ·	l	-		▲	
IATA Classification	UN3077	9	III		Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 956 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 956

Section 15. Regulatory information

United States

PG* : Packing gro	90-	
Section 15. Reg	latory information	
United States		
U.S. Federal regulations		
TSCA 8(b) inventory	: All components are listed or exempted.	
TSCA 5(a)2 final significant new use rule (SNUR)	 All components are listed or exempted. No ingredients listed. No ingredients listed. 	
TSCA 5(e) substance consent order	: No ingredients listed.	
TSCA 12(b) export notification	: No ingredients listed.	
SARA 311/312	: Immediate (acute) health hazard	
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	: No ingredients listed.	
Clean Air Act - Ozone Depleting Substances (ODS)	: This product does not contain nor is it manufactured with ozone depleting substance	∶S.
SARA 313	: No ingredients listed.	
CERCLA Hazardous substances	No ingredients listed.	
State regulations		
PENNSYLVANIA - RTK	: No ingredients listed.	
California Prop 65	: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.	
International regulations		
<u>Canada</u>		

CEPA DSL	: All components are listed or exempted.
WHMIS Classes	: Class D-2B: Material causing other toxic effe

: Class D-2B: Material causing other toxic effects (Toxic).

Section 15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

<u>Brazil</u> Regulation	: Decreto Federal n.º 2657 de 3 de novembro de 1998
International lists	 Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Japan inventory: Not determined. Korea inventory: All components are listed or exempted. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): All components are listed or exempted. Taiwan inventory (CSNN): Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)	:	Health
		Flammability
		Physical hazards
		Personal protection

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protectio	n
Association (U.S.A.)	



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of printing	: 6/10/2013.
Date of issue	: 6/10/2013.
Date of previous issue	: No previous validation.
Version	: 1

Indicates information that has changed from previously issued version.

Section 16. Other information

LANASET® is a registered trademark of Huntsman Corporation or an affiliate thereof in one or more countries, but not all countries.

Notice to reader

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LANASET® BORDEAUX B

Section 1. Identification

GHS product identifier	:	LANASET® BORDEAUX B
Product code	1	00041718
Other means of identification	on :	Not available.
Product type	:	Solid.
Relevant identified uses of	the	substance or mixture and uses advised against
Product use	:	Textile dye
Supplier's details	1	Huntsman International, LLC Textile Effects Division
		P.O. Box 4980
		The Woodlands, TX 77387
		Customer service telephone: (888) 514-4558
e-mail address of person	1	MSDS@huntsman.com
responsible for this SDS		
Emergency telephone number (24h/7day)	1	Chemtrec: (800) 424-9300 or (703) 527-3887
number (2411/10dy)		

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the	: SKIN SENSITIZATION - Category 1
substance or mixture	AQUATIC HAZARD (LONG-TERM) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 3.1%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 3.1%
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

Section 2. Hazards identification

Precautionary statements	r s \ i	Wear protective gloves: < 1 hour (breakthrough time): butyl or neoprene. Avoid release to the environment. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Collect spillage. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	: 1	None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

0/	
/0	CAS number
30 - 60	ACCN # 130519
3 - 1	52333-30-9
3 - 7	137-20-2
	3 - 7

Any concentration shown as a range is to protect confidentiality or is due to batch variation Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	 Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion Charles	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Section 4. First aid measures

Potential acute health	<u>n effects</u>	
Eye contact	: No known significant effects or critical hazards.	
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.	
Skin contact	: May cause an allergic skin reaction.	
Ingestion	: No known significant effects or critical hazards.	
Over-exposure signs/symptoms		
Eye contact	: No specific data.	
Inhalation	: No specific data.	
Skin contact	: Adverse symptoms may include the following: irritation redness	
Ingestion	: No specific data.	
Indication of immodiat	a modical attention and special treatment needed, if necessary	

Indication of immediate med	dical attention and special treatment needed, if necessary
Notes to physician	: No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	:	Closed cup: Not applicable.
Extinguishing media Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides metal oxide/oxides
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	1	Not explosive

Section 6. Accidental release measures

Personal precautions, protective	<u>/e equipment and emergency procedures</u>
For non-emergency : personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Methods and materials for s containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling	
Protective measures :	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general : occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, : including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Appropriate engineering controls	 Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measure	s
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P2
Thermal hazards	Not available.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Solid. [granules]
Color	: Dark red
Odor	: Odorless.
Odor threshold	: Not applicable.
рН	: 7.5 to 8 [Conc. (% w/w): 2%]
Melting point/Freezing point	: Not available.

Section 9. Physical and chemical properties

-		
Boiling/condensation point	1	Not available.
Flash point	:	Closed cup: Not applicable.
Evaporation rate	:	Not applicable.
Flammability (solid, gas)	1	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility in water	:	Not available.
Water Solubility Result	:	20 g/l 30 deg C
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	1	>200°C (>392°F)
lgnition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	:	450 °C
Explosive properties	3	Not explosive
Oxidizing properties	:	None.
Density	:	0.74 g/cm³ [20°C (68°F)]
Viscosity	1	Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Chromium as Cr(III) organo- metal complex	Unknown guidelines Not known	LD50 Oral	Rat	>2000 mg/kg
Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	Unknown guidelines Not known	LD50 Oral	Rat	>4000 mg/kg
LANASET BORDEAUX B	-	LD50 Oral	Rat	>2000 mg/kg
Irritation/Corrosion				

Product/ingredient name	Test	Species	Result
Chromium as Cr(III) organo-metal complex	OECD 405 Acute Eye Irritation/ Corrosion OECD 404 Acute Dermal Irritation/Corrosion		Eyes - Non-irritant. Skin - Non-irritant.

Conclusion/Summary

	Irritation/Corrosion	
Conclusion/Summary		
Skin :	Non-irritant. OECD 404	
	Chromium as Cr(III) organo-metal complex Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	Non-irritating to the skin. No additional information.
	Sodium 2- [methyloleoylamino] ethane-1-sulphonate	No additional information.
Eyes :	Non-irritant. OECD 405	
	Chromium as Cr(III)	Non-irritating to the eyes.
Show of the second	organo-metal complex Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	No additional information.
FABRI	Sodium 2- [methyloleoylamino] ethane-1-sulphonate	No additional information.
Respiratory :	Chromium as Cr(III) organo-metal complex	No additional information.
	Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	No additional information.
	Sodium 2- [methyloleoylamino] ethane-1-sulphonate	No additional information.

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
Chromium as Cr(III) organo- metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing
Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing
LANASET BORDEAUX B	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing

Mutagenicity

Product/ingredient name	Test	Result
Chromium as Cr(III) organo- metal complex	Subject: Bacteria	Positive
	Experiment: In vitro Subject: Mammalian-Animal	Negative
Carcinogenicity		
Not available.		
Reproductive toxicity		*
Not available.		
Teratogenicity	15	
Not available.		
Specific target organ toxicity	<u>r (single exposure)</u>	
Not available.	5	

Carcinogenicity

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely : Not available. routes of exposure

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.

Inhalation : No specific data.

Skin contact	Adverse symptoms may incl irritation redness	ude the following:
Ingestion	No specific data.	
Delayed and immediate	cts and also chronic effects	from short and long term exposure
<u>Short term exposure</u>		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Long term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	AILS S.

Potential chronic health effects

Potential chronic health	ects	
General	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.	
Carcinogenicity	No known significant effects or critical hazards.	
Mutagenicity	No known significant effects or critical hazards.	
Teratogenicity	No known significant effects or critical hazards.	
Developmental effects	No known significant effects or critical hazards.	
Fertility effects	No known significant effects or critical hazards.	
Numerical measures of	<u>city</u>	
Acute toxicity estimate		
Not available.	5	
	A PA	

Acute toxicity estimates

Not available. **K** Other information /

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Chromium as Cr(III) organo- metal complex	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	2.15	mg/l
/ 7:	No official guidelines Internal Method (BST)	Acute	IC50	3 hours	Bacteria	>180	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	9	mg/l
Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>40.4	mg/l

	9.00						
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
LANASET BORDEAUX B	OECD 202 Daphnia sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	7	mg/l
	-	Acute	IC50	3 hours	Bacteria	>300	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC0	48 hours	Fish	10	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	18	mg/l

Persistence and degradability

Conclusion/Summary	: Toxic to aquatic organisms if run directly	to surface waters.	
Persistence and degradabilit	<u>х</u>		4.
Product/ingredient name	Test	Period	Result
Chromium as Cr(III) organo- metal complex	OECD 301A Ready Biodegradability - DOC Die-Away Test	28 days	<2 %
Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	28 days	0 %
LANASET BORDEAUX B	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	30 to 40 %
Conclusion/Summary	: Partially eliminated by adsorption onto e Disodium 5,5'-[Poorly elimin (1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2,	fluent treatment sludge nated by biodegradation	

-pnenyieneoxy:

1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]

Q

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET BORDEAUX B Chromium as Cr(III) organo- metal complex Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	FIBERAR	-	Not readily Not readily Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Chromium as Cr(III) organo- metal complex	<3	-	low
Disodium 5,5'-[(1-methylethylidene)bis(4, 1-phenyleneoxysulphonyl-2, 1-phenyleneazo)]bis [6-amino-4-hydroxynaphthalene-2-sulphonate]	<3	_	low

Mobility in soil

Not available.

Other adverse effects

: No known significant effects or critical hazards.

Other ecological information

BOD5	: 210	mgO2/g	
COD	: 1150	mgO2/g	
тос	: 39.5	%	
Organohalogen content	: 0.02	% Chloro	0
Phosphorus Content	: 0	%	6
Nitrogen Content	: 7	%	2
Metal Content	: 1.8	% Chromium as Cr(III) organo-metal complex	
	: 0.2	% Cobalt as organo-metal complex	

Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and approximate and approximate and approximate.
	material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

- **DOT** : Environmentally hazardous substance, solid, n.o.s. (AZO METAL COMPLEX DYESTUFF) (Chromium as Cr(III) organo-metal complex). Marine pollutant
- **TDG** : Environmentally hazardous substance, solid, n.o.s. (AZO METAL COMPLEX DYESTUFF) (Chromium as Cr(III) organo-metal complex). Marine pollutant
- IMDG : Environmentally hazardous substance, solid, n.o.s. (AZO METAL COMPLEX DYESTUFF). Marine pollutant
- **IATA** : Environmentally hazardous substance, solid, n.o.s. (AZO METAL COMPLEX DYESTUFF)

Regulatory information	UN number	Classes	PG*	Label	Additional information

Section 14. Transport information

ion 14. Transp				
DOT Classification	UN3077	9		Marine Pollutant Only regulated in Bulk.
TDG Classification	UN3077	9	111	CONTRACTION OF
IMDG Classification	UN3077	9		Emergency schedules (EmS) F-A, S-F
IATA Classification	UN3077	9 SUPPLIE)) () () () () () () () () () () () () (Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 956 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 956

PG* : Packing group

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

United States Regulations

TSCA 8(b) inventory	: All components are listed or exempted.
TSCA 5(a)2 final significant new use rule (SNUR)	No ingredients listed.
TSCA 5(e) substance consent order	: No ingredients listed.
TSCA 12(b) export notification	: No ingredients listed.
SARA 311/312	: Immediate (acute) health hazard

Section 15. Regulatory information

occubil to. Reg	
	Product name Concentration %
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	: Chromium as Cr(III) organo-metal complex 46.34 Cobalt as organo-metal complex 6.6924
Clean Air Act - Ozone Depleting Substances (ODS)	: This product does not contain nor is it manufactured with ozone depleting substances.
	Product name Concentration %
SARA 313 Form R - Reporting requirements	Product name Concentration % : Chromium as Cr(III) organo-metal complex 46.34
	Ingredient name%Section 304 CERCLACERCLA ReportableProduct ReportableIngredient name%Hazardous SubstanceQuantity (Lbs)Quantity (Lbs)
CERCLA Hazardous substances	Chromium as Cr(III) 46.34 Listed No RQ organo-metal complex Cobalt as organo- metal complex Triphosphoric acid, 4.0986 Listed 5000 121993 pentasodium salt; Triphosphoric acid, sodium salt (1:5); Sodium phosphate; Pentasodium tripolyphosphate
State regulations	
PENNSYLVANIA - RTK	: Chromium as Cr(III) organo-metal complex, Triphosphoric acid, pentasodium salt; Triphosphoric acid, sodium salt (1:5); Sodium phosphate; Pentasodium tripolyphosphate, Sodium sulfate, Cobalt as organo-metal complex
California Prop 65	: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.
Canadian regulations	
CEPA DSL	: All components are listed or exempted.
WHMIS Classes	: Class D-2B: Material causing other toxic effects (Toxic).
	en classified in accordance with the hazard criteria of the Controlled Products MSDS contains all the information required by the Controlled Products Regulations.
Brazil Regulations	
Classification system	: Norma ABNT-NBR 14725-2:2012

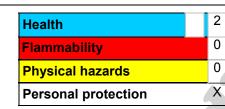
Classification system : Norma ABNT-NBR 14725-2:2012 used

Section 15. Regulatory information

International lists	: Australia inventory (AICS): All components are listed or exempted.
	China inventory (IECSC): All components are listed or exempted.
	Japan inventory: All components are listed or exempted.
	Korea inventory: All components are listed or exempted.
	Malaysia Inventory (EHS Register): Not determined.
	New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
	Philippines inventory (PICCS): All components are listed or exempted.
	Taiwan inventory (CSNN): Not determined.

Section 16. Other information





NS SINCE

The customer is responsible for determining the PPE code for this material.

Health

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)

2 0 Flammability 2 0 Instability Special

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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Date of previous issue	:	04/13/2009
Version	:	1

Indicates information that has changed from previously issued version.

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Notice to reader

Section 16. Other information

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

SAFETY DATA SHEET



LANASET® RED 2B

Section 1. Identification

GHS product identifier	1	LANASET® RED 2B
Product code	1	00041721
Other means of identificatio	n :	Not available.
Product type	:	Solid.
Material uses	:	Textile dye
Supplier's details	:	Huntsman International, LLC Textile Effects Division P.O. Box 4980 The Woodlands, TX 77387 Customer service telephone: (888) 514-4558
		Customer service telephone. (000) 314-4330
e-mail address of person responsible for this SDS	:	MSDS@huntsman.com
Emergency telephone number (24h/7day)	:	Chemtrec: (800) 424-9300 or (703) 527-3887

Section 2. Hazards identification

OSHA/HCS status	-	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture <u>GHS label elements</u> Hazard pictograms	:	AQUATIC HAZARD (LONG-TERM) - Category 2
Signal word	:	No signal word.
Hazard statements	:	Toxic to aquatic life with long lasting effects.
Precautionary statements	:	Avoid release to the environment. Collect spillage. Dispose of contents and container in accordance with all local, regional, national and international regulations.
1		

94

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

%	CAS number
13 - 30	72017-66-4
7 - 13	36290-04-7
1 - 3	137-20-2
	7 - 13

Any concentration shown as a range is to protect confidentiality or is due to batch variation. **Occupational exposure limits, if available, are listed in Section 8.**

Section 4. First aid measures

Description of necessary first (
	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sympt	oms

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.

Section 4. First aid measures

Ingestion	: No specific data.
Indication of immediate med	lical attention and special treatment needed, if necessary
Notes to physician	: No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	: Closed cup: Not applicable.
Extinguishing media	.53
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide Carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Not explosive

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures			
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".	

Section 6. Accidental release measures

	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Methods and materials for : containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters	
Occupational exposure limits	
Ingredient name	Exposure limits
ACID RED 407	OSHA PEL (United States, 2/2013).
	TWA: 0.5 mg/m³, (as Cr) 8 hours.
- Br	

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: Tightly fitting safety goggles
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P2
Thermal hazards	: Not available.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Solid. [Powder]
Color	: Red.
Odor	: Odorless.
Odor threshold	: Not applicable.
рн	: 6 to 8 [Conc. (% w/w): 2%]
Melting point/Freezing point	: Not available.
Boiling/condensation point	: Not available.
Flash point	: Closed cup: Not applicable.
Evaporation rate	: Not applicable.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: Not available.
Solubility in water	: Soluble

Section 9. Physical and chemical properties

Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: >200°C (>392°F)
lgnition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	: 400 °C
Explosive properties	: Not explosive
Oxidizing properties	: None.
Density	: 0.4 to 0.5 g/cm³ [20°C (68°F)]
Viscosity	: Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.

Section 10. Stability and reactivity

D1929B	
Explosive properties	: Not explosive
Oxidizing properties	: None.
Density	: 0.4 to 0.5 g/cm ³ [20°C (68°F)]
Viscosity	: Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.
Section 10. Stabil	lity and reactivity
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
ACID RED 407	Unknown guidelines Not known	LD50 Oral	Rat	>2000 mg/kg
2-Naphthalenesulfonic acid, polymer with formaldehyde, acidium acit	No official guidelines	LD50 Oral	Mouse	4880 mg/kg
sodium salt LANASET RED 2B	-	LD50 Oral	Rat	>2000 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
LANASET RED 2B	OECD 405 Acute Eye Irritation/ Corrosion	Rabbit	Eyes - Non-irritant.
	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Non-irritant.

Conclusion/Summary

		U	
Skin	:	Non-irritating to the skin. ACID RED 407 2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt Sodium 2- [methyloleoylamino] ethane-1-sulphonate	No additional information. No additional information. No additional information.
Eyes	:	Non-irritating to the eyes. ACID RED 407 2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt Sodium 2- [methyloleoylamino] ethane-1-sulphonate	No additional information. No additional information. No additional information.
Respiratory	:	ACID RED 407 2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt Sodium 2- [methyloleoylamino] ethane-1-sulphonate	No additional information. No additional information. No additional information.
Sensitization		2	
			V

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
ACID RED 407	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing

3

2

Mutagenicity

Product/ingredient name Test	Result
2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	ast Negative

Carcinogenicity

Not available.

Carcinogenic class

Product/ingredient name	IARC	OSHA
ACID RED 407	3	-
	•	

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure) Not available.

9/24/2014.

Specific target organ toxic	<u>ity</u>	repeated exposure)
Not available.		
Aspiration hazard		
Not available.		
Information on the likely routes of exposure	÷	Not available.
Toutes of exposure		
Potential acute health effe	<u>cts</u>	No known significant effects or critical hazards.
Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.
Symptoms related to the p	by	sical, chemical and toxicological characteristics
Eye contact		No specific data.
· · · · · · · · · · · · · · · · · · ·	1	
Inhalation	÷	No specific data.
Skin contact	÷	No specific data.
Ingestion	1	No specific data.
	fec	ts and also chronic effects from short and long term exposure
Short term exposure		9 9 9 P
Potential immediate effects	1	Not available.
Potential delayed	:	Not available.
effects		
Long term exposure		.5
Potential immediate effects	:	Not available.
Potential delayed	:	Not available.
effects		
	/	
Potential chronic health ef	fe	<u>cts</u>
General A	-	No known significant effects or critical hazards.
Carcinogenicity		No known significant effects or critical hazards.

Mutagenicity

Teratogenicity

Developmental

: No known significant effects or critical hazards.

No known significant effects or critical hazards.

: No known significant effects or critical hazards.

Other information

: Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
ACID RED 407	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	33.4	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>300	mg/l
	Unknown guidelines Not known	Acute	LC50	48 hours	Fish	0.6	mg/l
2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No official guidelines	Acute	EC50	48 hours	Daphnia	37	mg/l
	No official guidelines OECD OECD 202 screening	Acute Acute	EC50 EC50	48 hours 48 hours	Daphnia Daphnia	9.9 to 15 39	mg/l mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>1000	mg/l
LANASET RED 2B	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>30	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	281	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours	Fish	3	mg/l

Conclusion/Summary : Toxic to aquatic organisms if run directly to surface waters.

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Persistence and degradability

Product/ingredient name	Test	Period	Result
ACID RED 407	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	0 %
2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	No official guidelines	28 days	<60 %
AN AN	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	28 days	<5 %
LANASET RED 2B	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	30 to 40 %
Conclusion/Summary	: Partially eliminated by adsorption onto	effluent treatment s	ludge.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET RED 2B ACID RED 407 2-Naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	-		Not readily Not readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow		BCF	Potential
ACID RED 407	<3		-	low
Mobility in soil				
Not available.				
Other adverse effects	: No know	wn significar	nt effects or critical hazards.	
Other ecological informatio	n			190
BOD5	: 190	mgO2/g]	CE.
COD	: 1025	mgO2/g]	C GIT
тос	: Not dete	ermined.		S
Organohalogen content	: 2.3	%	Chloro	Ar
Phosphorus Content	: 0	%		
Nitrogen Content	: 3.8	%)
Metal Content	: 1.2	%	Chromium as Cr(III) organo-me	etal complex

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT	: Environmentally hazardous substance, solid, n.o.s.	Chromium complex monoazo dyestuff. Marine pollutant
TDG	: Environmentally hazardous substance, solid, n.o.s.	Chromium complex monoazo dyestuff. Marine pollutant
IMDG	: Environmentally hazardous substance, solid, n.o.s.	Chromium complex monoazo dyestuff Marine pollutant
ΙΑΤΑ	: Environmentally hazardous substance, solid, n.o.s.	(CHROMIUM COMPLEX MONOAZO DYESTUFF)

Section 14. Transport information

_						-
Regulatory information	UN number	Classes	PG*	Label	Additional information	
DOT Classification	UN3077	9	111		-not regulated in bulk	00
TDG Classification	UN3077	9	111		ANKS SINCE	
IMDG Classification	UN3077	9			<u>Emergency</u> <u>schedules (EmS)</u> F-A S-F	
IATA Classification	UN3077	9 SUPPLIE	ी		Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 956 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 956	

PG* : Packing group

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

United States RegulationsTSCA 8(b) inventory: All components are listed or exempted.TSCA 5(a)2 final
significant new use rule
(SNUR): No ingredients listed.TSCA 5(e) substance
consent order: No ingredients listed.

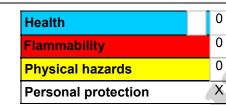
TSCA 12(b) export notification	o ingredients listed.	
SARA 311/312	ot classified.	
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	oduct name nromate(2-), [4-[-chloro-2-hydroxy-3-nitrophenyl)azo]-2, dihydro-5-methyl-2-phenyl-3H-pyrazol-3 -)]-[3-[[1-(3-chlorophenyl)-4, dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl] to]-4-hydroxy-5-nitrobenzenesulfonato(3 sodium salt	
Clean Air Act - Ozone Depleting Substances (ODS)		nufactured with ozone depleting substances.
	<u>oduct name</u>	Concentration %
SARA 313 Form R - Reporting requirements	CID RED 407	23.27
	gredient name <u>%</u> Ha	ction 304CERCLAProductRCLAReportableReportablezardousQuantityQuantitybstance(Lbs)(Lbs)
CERCLA Hazardous substances	CID RED 407 23.27 Lis	ted No RQ assigned
State regulations		
PENNSYLVANIA - RTK	nromate(2-), [4-[(5-chloro-2-hydroxy-3-n dihydro-5-methyl-2-phenyl-3H-pyrazol-3 dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl] sodium salt	
California Prop 65	is product contains no listed substance ncer, birth defects or other reproductive arning under the statute.	es known to the State of California to cause harm, at levels which would require a
Canadian regulations		
CEPA DSL	components are listed or exempted.	
WHMIS Classes	ot controlled under WHMIS (Canada).	
This product has bee	sified in accordance with the hazard	criteria of the Controlled Products d by the Controlled Products Regulations.
Brazil Regulations Classification system used	orma ABNT-NBR 14725-2:2012	

Section 15. Regulatory information

	• •
International lists	: Australia inventory (AICS): All components are listed or exempted.
	China inventory (IECSC): All components are listed or exempted.
	Japan inventory: All components are listed or exempted.
	Korea inventory: All components are listed or exempted.
	Malaysia Inventory (EHS Register): Not determined.
	New Zealand Inventory of Chemicals (NZIoC): All components are listed or
	exempted.
	Philippines inventory (PICCS): All components are listed or exempted.
	Taiwan inventory (CSNN): Not determined.

Section 16. Other information





NS SINCE

The customer is responsible for determining the PPE code for this material.

Health

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)

0 Flammability 0 0 Instability

Special

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of printing	:	9/24/2014.
Date of issue	:	9/24/2014.
Date of previous issue	:	1/23/2014.
Version	:	2

Indicates information that has changed from previously issued version.

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Notice to reader

Section 16. Other information

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

SAFETY DATA SHEET



LANASET® VIOLET B

Section 1. Identification

GHS product identifier	:	LANASET® VIOLET B
Product code	1	00041693
Other means of identification	on :	Not available.
Product type	:	Solid.
Relevant identified uses of	<u>the</u>	substance or mixture and uses advised against
Product use	:	Textile dye
		55
Supplier's details	1	Huntsman International, LLC Textile Effects Division
		P.O. Box 4980
		The Woodlands, TX 77387
		Customer service telephone: (888) 514-4558
e-mail address of person	:	MSDS@huntsman.com
responsible for this SDS		
Emergency telephone	:	Chemtrec: (800) 424-9300 or (703) 527-3887
number (24h/7day)		

Section 2. Hazards identification

OSHA/HCS status	 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: AQUATIC HAZARD (LONG-TERM) - Category 3
Str. OF	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 2% Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2%
GHS label elements	
Signal word	: No signal word.
Hazard statements	: Harmful to aquatic life with long lasting effects.
Precautionary statements	: Avoid release to the environment. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number	
Sodium 2-[methyloleoylamino]ethane-1-sulphonate	1 - 3	137-20-2	
Citric acid	0.1 - 1	77-92-9	
Cobalt as organo-metal complex	0.1 - 1	70851-34-2,	
		73612-41-6	
Chromium as Cr(III) organo-metal complex	0.1 - 1	41741-86-0	
Any concentration shown as a range is to protect confidentiality or is due to batch variation.			

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.	
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.	
Most important symptoms/effects, acute and delayed		

Potential acute health effects		
Eye contact	: No known significant effects or critical hazards.	
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.	
Skin contact	: No known significant effects or critical hazards.	
Ingestion	: No known significant effects or critical hazards.	
Over-exposure signs/symptoms		
Eye contact	: No specific data.	

Inhalation	: No specific data.

Section 4. First aid measures

Skin contact	: No specific data.
Ingestion	: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Section 5. Fire-fig	hting measures
See toxicological information (Section 11)	
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician	: No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.

Section 5. Fire-fig	hting measures
Flash point	: Not available.
Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures		
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for : containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

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Occupational exposure limits	
Ingredient name	Exposure limits
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010). TWA: 0.5 mg/m ³ , (as Cr) 8 hours.

Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airbor contaminants.	ne
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensuthey comply with the requirements of environmental protection legislation. In som cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	

Individual protection measures

Control parameters

Section 8. Exposure controls/personal protection

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P2
Thermal hazards	: Not available.

Section 9. Physical and chemical properties

<u>Appearance</u>	5			
Physical state	:	Solid. [Powder]		
Color):	Violet		
Odor	:	Odorless.		
Odor threshold	3	Not available.		
рн	:	6 to 7 [Conc. (% w/w): 2%]		
Melting point/Freezing point	:	Not available.		
Boiling/condensation point	:	Not available.		
Flash point	:	Not available.		
Evaporation rate	:	Not available.		
Flammability (solid, gas)	:	Not available.		
Lower and upper explosive (flammable) limits	:	Not available.		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	:	Not available.		
Solubility in water	:	Not available.		
Water Solubility Result	1	60 g/l	30	deg C

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Section 9. Physical and chemical properties

Section 10. Stabili	ty and reactivity	
Viscosity	Not available.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Oxidizing properties Density	: None. : 0.53 g/cm³ [20°C (68°F)]	
Ignition Temperature (Deg C) : SIT > 450 *ASTM- D1929B	: 460 °C	
Decomposition temperature	: >135°C (>275°F)	
Auto-ignition temperature	: Not available.	
Partition coefficient: n- octanol/water	: Not available.	

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Chemical Stability	. The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	 Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Citric acid	OECD 402 Acute Dermal Toxicity	LD50 Dermal	Rat - Male, Female	>2000 mg/kg
	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat - Male, Female	5400 mg/kg
Cobalt as organo-metal complex	Unknown guidelines Not known	LD50 Oral	Rat	3900 mg/kg
Chromium as Cr(III) organo- metal complex	Unknown guidelines Not known	LD50 Oral	Rat	>5000 mg/kg
LANASET VIOLET B	-	LD50 Oral	Rat	>5000 mg/kg

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
Citric acid	OECD 405 Acute Eye Irritation/ Corrosion	Rabbit	Eyes - Irritant
	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Non-irritant.

Conclusion/Summary Skin Non-irritant. Rabbit ÷., Sodium 2-No additional information. [methyloleoylamino] ethane-1-sulphonate ANKS SINCE 1969 Citric acid Non-irritating to the skin. Cobalt as organo-metal No additional information. complex Chromium as Cr(III) No additional information. organo-metal complex Non-irritant. Rabbit Eyes 2 Sodium 2-No additional information. [methyloleoylamino] ethane-1-sulphonate Citric acid Irritating to eyes. Cobalt as organo-metal No additional information. complex No additional information. Chromium as Cr(III) organo-metal complex : Sodium 2-No additional information. Respiratory [methyloleoylamino] ethane-1-sulphonate No additional information. Citric acid Cobalt as organo-metal No additional information. complex Chromium as Cr(III) No additional information. organo-metal complex

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
Cobalt as organo-metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing
Chromium as Cr(III) organo- metal complex	No official guidelines Buehler or maximization test	skin	Guinea pig	Sensitizing

Mutagenicity

Product/ingredient name	Test	Result
Citric acid	Experiment: In vitro Subject: Mammalian-Human	Positive
	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Negative
1	Experiment: In vivo Subject: Mammalian-Animal	Negative
	Experiment: In vivo Subject: Mammalian-Animal	Negative

Carcinogenicity

Conclusion/Summary :

Citric acid

In accordance with column 2 of Annex VII - X of Regulation (EC) No 1907/2006, the test for this property of the substance does not need to be conducted.

Carcinogenic class

Product/ingredient name	IARC	OSHA
Chromium as Cr(III) organo-metal complex	3	-

Reproductive toxicity

Conclusion/Summary

Citric acid

In accordance with column 2 of Annex VII - X of Regulation (EC) No 1907/2006, the test for this property of the substance does not need to be conducted.

Teratogenicity

Conclusion/Summary

Citric acid

In accordance with section 1 of Regulation (EC) No 1907/2006, Annex XI, this test does not appear scientifically necessary.

Specific target organ toxicity (single exposure)

Not available.

T SUPPLIES & CLOT Specific target organ toxicity (repeated exposure) Not available.

Aspiration hazard

Not available.

Information on the likely Not available. 10 routes of exposure

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure : Not available.

Potential immediate effects

			•••
Potential delayed effects	÷	Not available.	
Long term exposure			
Potential immediate effects	1	Not available.	
Potential delayed effects	1	Not available.	
Potential chronic health e	ffe	<u>cts</u>	
Conclusion/Summary	1		
		Citric acid	In accordance with section 1 of Regulation (EC) No 1907/2006, Annex XI, this test does not appear scientifically necessary.
General	:	No known significant effects	or critical hazards.
Carcinogenicity	:	No known significant effects	or critical hazards.
Mutagenicity	÷	No known significant effects	or critical hazards.
Teratogenicity	÷	No known significant effects	
Developmental effects	:	No known significant effects	or critical hazards.
Fertility effects	:	No known significant effects	or critical hazards.
Numerical measures of to	<u>xic</u>	<u>city</u>	
Acute toxicity estimates			
Not available.			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Others is formation			i de la companya de l
Other information	-	Not available.	
Continue 40 Engl			

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Citric acid	Unknown guidelines	Acute	LC50	24 hours Static	Daphnia	1535	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours Static	Fish	440 to 760	mg/l
E CO BRIC	No official guidelines	Chronic	NOEC	8 days Static	Algae	425	mg/l
Cobalt as organo-metal complex	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	30.5	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours	Fish	0.52	mg/l
LANASET VIOLET B	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>68	mg/l

- OECD 203 Fish, Acute Toxicity Test	Acute Acute	IC50 LC50	3 hours 48 hours	Bacteria Fish	>300 40	mg/l mg/l
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Conclusion/Summary

: Harmful to aquatic organisms if run directly to surface waters.

Persistence and degradability

Product/ingredient name	Test	Period	Result
Citric acid	OECD 301E Ready Biodegradability - Modified OECD Screening Test	19 days	100 %
	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	28 days	97 %
	OECD OECD 302B modified	14 days	85 %
Cobalt as organo-metal complex	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	0.3 %
LANASET VIOLET B	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	28 days	80 to 90 %
Conclusion/Summary	: Eliminated by adsorption onto effluent tre	eatment sludge.	•
	Citric acid Readily biod	egradable	

narodiont namo	Aquatic balf life	Photolycic	Biode
	Citric acid	Readily biodegradable	

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET VIOLET B Citric acid Cobalt as organo-metal complex	-		Not readily Inherent Not readily

Bioaccumulative potential

Bioaccumulative potential				
Product/ingredient name	LogPow	BCF	Potential	
Citric acid	-0.76 to -0.12	-	low	
Cobalt as organo-metal	<3	-	low	
complex				
Chromium as Cr(III) organo-	<3	-	low	
metal complex				
Mobility in soil	, e-'			
<u>MODILITY III SOII</u>				
Not available.				

Mobility in soil

r

Other adverse effects	1	No known significant effects or critical hazards.

Other ecological information

BOD5	;	50	mgO2/g	
COD	:	1100	mgO2/g	
тос	1	41	%	
Organohalogen content	:	3.4	%	Chloro
Phosphorus Content	1	0	%	
Nitrogen Content	1	5.2	%	
Metal Content	1	100	ppm	Chromium as Cr(III) organo-metal complex
	1	46	ppm	Cobalt as organo-metal complex

Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emotiod containers that have not been cleaned or rinsed out. Emoty
	handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT	: Not regulated.
TDG	: Not regulated.
IMDG	: Not regulated.
ΙΑΤΑ	: Not regulated.

al should be in accordance with applicable regional, national and local laws and regulations.					
tion 14. Transp	ort inforn	nation			SIN SIN
r shipping name				THING	ANS.
: Not regulated.					A
: Not regulated.					\$*
: Not regulated.			54		
: Not regulated.					
				0	
			မ မ		
Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	SUP Y	-		-
TDG Classification	Not regulated.	_	-		-
IMDG Classification	Not regulated.	-	-		-
IATA Classification	Not regulated.	-	-		-
60.00	1	1		1	

PG* : Packing group

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

United States Regulations

TSCA 8(b) inventory	: All components are listed or exempted.
TSCA 5(a)2 final significant new use rule (SNUR)	: No ingredients listed.

eeenen in ieg		•			
TSCA 5(e) substance consent order	: No ingredients listed.				
TSCA 12(b) export notification	: No ingredients listed.				
SARA 311/312	: Not classified.				
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	: No ingredients listed.			C	
Clean Air Act - Ozone Depleting Substances (ODS)	: This product does not co	ontain nor is it ma	anufactured w	vith ozone deplet	ing substances.
	Product name		Con	centration %	
SARA 313 Form R - Reporting requirements	: Cobalt as organo-metal		0.18	BLANKS	
	Ingredient name	<u>%</u>	ECtion 304 ERCLA azardous ubstance	<u>CERCLA</u> <u>Reportable</u> <u>Quantity</u> (Lbs)	<u>Product</u> <u>Reportable</u> <u>Quantity</u> (Lbs)
CERCLA Hazardous substances	metal complex Chromium as Cr(III) organo-metal complex Triphosphoric acid,	0.16946 Lis	sted sted sted	No RQ assigned 5000	200000000
	pentasodium salt; Triphosphoric acid, sodium salt (1:5); Sodium phosphate; Pentasodium tripolyphosphate	ζ×.			
inter /	Formaldehyde	0.000150254 Li	sted	100	66553969
State regulations PENNSYLVANIA - RTK	: No ingredients listed.				
California Prop 65	: WARNING: This produc	ct contains a cher	nical known t	o the State of Ca	alifornia to cause
	Ingredient name	<u>Cancer</u>	Reprodu	<u>ctive</u>	
	Mixture of hydrocarbons		No.		
,	petroleum Formaldehyde	Yes.	No.		
<u>Canadian regulations</u> CEPA DSL	: All components are liste	ed or exempted.			

Section 15. Regulatory information

: Not controlled under WHMIS (Canada).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Brazil Regulations Classification system used	: Norma ABNT-NBR 14725-2:2012
International lists	: Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted. Japan inventory: All components are listed or exempted. Korea inventory: All components are listed or exempted. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): At least one component is not listed. Philippines inventory (PICCS): All components are listed or exempted. Taiwan inventory (CSNN): Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.



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Date of printing	: 12/3/2013.
Date of issue	: 12/3/2013.
Date of previous issue	: No previous validation
Version	: 1

Section 16. Other information

Indicates information that has changed from previously issued version.

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Notice to reader

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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SAFETY DATA SHEET



LANASET® YELLOW 2R GR

Section 1. Identification

GHS product identifier	:	LANASET® YELLOW 2R GR
Product code	1	00043661
Other means of identification	on :	Not available.
Product type	:	Solid.
Relevant identified uses of	the	substance or mixture and uses advised against
Product use	:	Textile dye
Supplier's details	:	Huntsman International, LLC Textile Effects Division P.O. Box 4980 The Woodlands, TX 77387
		Customer service telephone: (888) 514-4558
e-mail address of person responsible for this SDS	:	MSDS@huntsman.com
Emergency telephone number (24h/7day)	:	Chemtrec: (800) 424-9300 or (703) 527-3887

Section 2. Hazards identification

OSHA/HCS status	is material is considered hazardous by the OSHA Hazard Commun andard (29 CFR 1910.1200).	ication
Classification of the substance or mixture <u>GHS label elements</u>	IN SENSITIZATION - Category 1 WATIC HAZARD (LONG-TERM) - Category 3	
Hazard pictograms	!	
Signal word	arning	
Hazard statements	y cause an allergic skin reaction. rmful to aquatic life with long lasting effects.	
Precautionary statements	ear protective gloves: < 1 hour (breakthrough time): butyl or neopre- ease to the environment. Avoid breathing dust. Contaminated work buld not be allowed out of the workplace. IF ON SKIN: Wash with d water. Wash contaminated clothing before reuse. If skin irritation curs: Get medical attention. Dispose of contents and container in a h all local, regional, national and international regulations.	k clothing plenty of soap า or rash

Section 2. Hazards identification

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Cobalt as organo-metal complex	13 - 30	70851-34-2, 73612-41-6
Chromium as Cr(III) organo-metal complex	13 - 30	41741-86-0
PARAFFIN OILS	1 - 3	8012-95-1

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary fir	st aid measures
Eye contact	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	 Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: May cause an allergic skin reaction.

Section 4. First aid measures

Inhalation : N Skin contact : A irr re Ingestion : N	Io specific data. Io specific data. Idverse symptoms may include the following: ritation edness Io specific data.
Inhalation : N Skin contact : A irr re Ingestion : N	lo specific data. Adverse symptoms may include the following: ritation edness
Skin contact : A irr re Ingestion : N	Adverse symptoms may include the following: ritation edness
irr re Ingestion : N	ritation
-	lo specific data.
Indication of immediate medical a	
	attention and special treatment needed, if necessary
	Io specific treatment. Treat symptomatically. Call medical doctor or poison control enter immediately if large quantities have been ingested.
m W	Io action shall be taken involving any personal risk or without suitable training. It hay be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Vash contaminated clothing thoroughly with water before removing it, or wear loves.
See toxicological information (See	ction 11)

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	:	Not available.
Extinguishing media		
Suitable extinguishing media	1	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical		This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	-	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	:	Not explosive

Section 6. Accidental release measures

Personal precautions, protectiv	e equipment and emergency procedures
For non-emergency : personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders :	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions :	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for : containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

1

Precautions for safe handling	
Protective measures :	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general coccupational hygiene :	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, : including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Осси	national	exposure	limits
<u>UCCu</u>	pational	exposure	IIIIII

Ingredient name	Exposure limits
Chromium as Cr(III) organo-metal complex	OSHA PEL (United States, 6/2010). TWA: 0.5 mg/m ³ , (as Cr) 8 hours.
PARAFFIN OILS	ACGIH TLV (United States, 3/2012). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 6/2010). TWA: 5 mg/m ³ 8 hours.

- Appropriate engineering controls
 : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

 Environmental exposure
 : Emissions from ventilation or work process activity process activity of the shocked to ensure the statement of the state
- Environmental exposure controls
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection		Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl or neoprene
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P2
Thermal hazards	:	Not available.

Section 9. Physical and chemical properties

•	· ·	
Appearance		
Physical state	: Solid. [granules]	
Color	: Yellow.	
Odor	: Odorless.	
Odor threshold	: Not applicable.	
рН	: 6.5 to 7.5 [Conc. (% w/w): 0.1%]	
Melting point/Freezing point	: Not available.	
Boiling/condensation point	: Not available.	
Flash point	: Not available.	
Evaporation rate	: Not applicable.	
Flammability (solid, gas)	 Not available. 	
Lower and upper explosive (flammable) limits	: Not available.	
Vapor pressure	: Not available.	
Vapor density	: Not available.	
Relative density	: Not available.	
Solubility in water	: Not available.	
Water Solubility Result	: 100 g/l 30 deg C	
Partition coefficient: n- octanol/water	: Not available.	
Auto-ignition temperature	: Not available.	
Decomposition temperature	: >200°C (>392°F)	
Explosive properties	: Not explosive	
Oxidizing properties	: None.	
Density	: 0.7 to 0.8 g/cm ³ [20°C (68°F)]	
Viscosity	: Dynamic (room temperature): Not applicable.	
P		

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Cobalt as organo-metal complex	Unknown guidelines Not known	LD50 Oral	Rat	3900 mg/kg
Chromium as Cr(III) organo- metal complex	Unknown guidelines Not known	LD50 Oral	Rat	>5000 mg/kg
PARAFFIN OILS	-	LC50 Inhalation Dusts and mists	Rat	2062 mg/l
	-	LD50 Oral	Rat	22000 mg/kg
LANASET YELLOW 2R GR	-	LD50 Oral	Rat	>2000 mg/kg

Irritation/Corrosion

Conclusion/Summary

	•••		2200 0.u.			2000 11
Irritation/Corrosion						4,
Conclusion/Summary						5
Skin	:	Non-irritant. The toxico composition.	ological data is ba	sed on a produc	t with com	parable
		Cobalt as organo-meta complex	al No additior	nal information.	LA.	
		Chromium as Cr(III) organo-metal complex		nal information.	/	
		PARAFFIN OILS		nal information.		
Eyes	:	Non-irritant. The toxico composition.	ological data is ba	sed on a produc	t with com	parable
		Cobalt as organo-meta complex	No addition	al information.		
		Chromium as Cr(III) organo-metal complex		nal information.		
		PARAFFIN OILS		nal information.		
Respiratory	:	Cobalt as organo-meta complex	No addition	nal information.		
		Chromium as Cr(III) organo-metal complex		nal information.		
		PĂRAFFIN OILS		nal information.		
Sensitization		BHE				

Product/ingredient name	Test	Route of exposure	Species	Result
Cobalt as organo-metal complex	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing
Chromium as Cr(III) organo- metal complex	No official guidelines Buehler or maximization test	skin	Guinea pig	Sensitizing
LANASET YELLOW 2R GR	No official guidelines Buehler or maximization test	skin	Guinea pig	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Carcinogenic class				
Product/ingredient name			IARC	OSHA
Chromium as Cr(III) organ	o-m	netal complex	3	-
Reproductive toxicity				
Not available.				
Teratogenicity				965
Not available.				
Specific target organ toxi Not available.	<u>cit</u> y	<u>y (single exposure)</u>		SINCE 1969
Specific target organ toxi Not available.	<u>cit</u>	<u>y (repeated exposure)</u>		A ANKS
Aspiration hazard Not available.			. 28	HING BLANKS SINC
Information on the likely routes of exposure	:	Not available.		
Potential acute health eff	ect	<u>s</u>	8	
Eye contact	:	No known significant effects or c	ritical hazar	ds.
Inhalation	:	Exposure to decomposition produce be delayed following exposure.	ucts may ca	ause a health hazard. Serious effects may

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure) Not available.

Specific target organ toxicity (repeated exposure) Not available.

Aspiration hazard

Information on the likely : Not available. routes of exposure

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
Long term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	

Potential chronic health effects

General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Numerical measures o	f toxicity
Acute toxicity estimation	<u>es</u>
Not available.	5
	NS IS
Other information	: Not available.
Section 12. Ec	ological information
Toxicity	

Section 12. Ecological information

Toxicity

Test	Endpoint		Exposure	Species	Result	
OECD 202 Daphnia	Acute	EC50	48 hours	Daphnia	30.5	mg/l
		ભ				
OECD 209	Acute	IC50	3 hours	Bacteria	>320	mg/l
Inhibition Test	R.					
OECD 203 Fish,	Acute	LC50	96 hours	Fish	0.52	mg/l
	Acute	L C0	96 hours	Fish	>1000	mg/l
Not known	/ 10010				1000	g/i
	Acute	LC100	96 hours	Fish	>1000	mg/l
	Acute	LC50	96 hours	Fish	>1000	mg/l
Not known	. .					-
	Acute	IC50	3 hours	Bacteria	>320	mg/l
Respiration						
Inhibition Test	A	1.050	00 h	F ' - 1-	4.5	
	Acute	LC50	90 nours	FISN	10	mg/l
	OECD 202 Daphnia sp. Acute Immobilisation Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish, Acute Toxicity Test Unknown guidelines Not known Unknown guidelines Not known Unknown guidelines Not known OECD 209 Activated Sludge, Respiration	OECD 202 Daphnia sp. AcuteAcuteImmobilisation Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish, Acute Toxicity Test Unknown guidelinesAcuteNot known Unknown guidelines Not known Unknown guidelinesAcuteNot known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 209 AcuteAcute	OECD 202 Daphnia sp. AcuteAcuteEC50sp. AcuteImmobilisation TestAcuteIC50OECD 209 Activated Sludge, RespirationAcuteIC50Inhibition Test OECD 203 Fish, Acute Toxicity Test Unknown guidelinesAcuteLC50Not known Unknown guidelines Not known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish,AcuteLC50	OECD 202 Daphnia sp. AcuteAcuteEC5048 hoursImmobilisation Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish, Acute Toxicity Test Unknown guidelinesAcuteIC503 hoursOECD 203 Fish, Acute Toxicity Test Unknown guidelinesAcuteLC5096 hoursNot known Unknown guidelinesAcuteLC096 hoursNot known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 209AcuteLC10096 hoursNot known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish,AcuteLC503 hours	OECD 202 Daphnia sp. AcuteAcuteEC5048 hoursDaphniasp. AcuteImmobilisation Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish, Acute Toxicity Test Unknown guidelinesAcuteIC503 hoursBacteriaOECD 203 Fish, Acute Toxicity Test Unknown guidelinesAcuteLC5096 hoursFishNot known Unknown guidelinesAcuteLC10096 hoursFishNot known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish,AcuteLC5096 hoursFishAcuteLC5096 hoursFishStateFishStateNot known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish,AcuteLC5096 hoursFishAcuteLC5096 hoursFishStateStateStateAcuteIC503 hoursBacteriaActivated Sludge, Respiration Inhibition Test OECD 203 Fish,AcuteLC5096 hoursFish	OECD 202 Daphnia sp. AcuteAcuteEC5048 hoursDaphnia30.5Sp. AcuteImmobilisation Test OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish, Acute Toxicity Test Unknown guidelines Not known Unknown guidelinesAcuteLC503 hoursBacteria>32096 hoursFish0.5297 Markown Unknown guidelines Not known OECD 209 AcuteAcuteLC5096 hoursFish>100096 hoursFish>100096 hoursFish>100097 Markown Unknown guidelines Not known OECD 209 Activated Sludge, Respiration Inhibition Test OECD 203 Fish,AcuteLC5096 hoursFish>100096 hoursFish>10003 hoursFish>10003 hours510098 hoursFishAcuteLC5096 hoursFish>100099 hoursAcuteLC5096 hoursFish>100090 hoursAcuteLC5096 hoursFish>100090 hoursFish>10003 hoursBacteria>32090 hoursFishAcuteLC5096 hoursFish>100091 hoursFishAcuteLC5096 hoursFish>100092 hoursFishAcuteLC5096 hoursFish>32093 hoursFishAcuteLC5096 hoursFish>32094 hoursFishAcuteLC5096 hoursFish>320

Conclusion/Summary

: Harmful to aquatic organisms if run directly to surface waters. Commercial product tested.

Persistence and degradability

Product/ingredient name	Test	Period	Result
Cobalt as organo-metal complex LANASET YELLOW 2R GR	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days 28 days	0.3 % >90 %
Conclusion/Summary	: Eliminated by adsorption onto effluent tre	eatment sludge.	

1/27/2014.

Cobalt as organo-metal complex Chromium as Cr(III) organo-metal complex

Poorly eliminated by adsorption on effluent treatment sludae. Partially eliminated by adsorption onto effluent treatment sludge.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET YELLOW 2R GR Cobalt as organo-metal complex	-	-	Not readily Not readily
Bioaccumulative potential			

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Cobalt as organo-metal complex Chromium as Cr(III) organo- metal complex	<3 <3	-	low

Mobility in soil

Other ecological information

metal complex				
<u>Mobility in soil</u> Not available.				BLAN
Not available.				
Other adverse effects	: No	o known s	ignificant	effects or critical hazards.
			-	
Other ecological information				
BOD5	: 26	60	mgO2/g	
COD	: 11	125	mgO2/g	9
тос	: 42	2.2	%	L.S.
Organohalogen content	: 0.	.9	%	Chloro
Phosphorus Content	: 0.	.6	%	as phosphate
Nitrogen Content	: 4		% 5	
Metal Content	: 19	.4	%	Chromium as Cr(III) organo-metal complex
	: 0.	.7	%	Cobalt as organo-metal complex

Section 13. Disposal considerations

Disposal methods



The generation of waste should be avoided or minimized wherever possible. :/ Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

DOT	: Not regulated.
TDG	: Not regulated.
	N N N N N N N N N N

- : Not regulated. IMDG
- : Not regulated. IATA

: Not regulated.					CO ,000
Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-		JIS .
TDG Classification	Not regulated.	-	-		BLA
IMDG Classification	Not regulated.	-			-
IATA Classification	Not regulated.	-			-
PG* · Packing group			\$	2	

PG* : Packing group

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

United States Regulations

TSCA 8(b) inventory	:	All components are listed or exempted.	
TSCA 5(a)2 final significant new use rule (SNUR)		No ingredients listed.	
TSCA 5(e) substance consent order		No ingredients listed.	
TSCA 12(b) export notification	:	No ingredients listed.	
SARA 311/312	;	Immediate (acute) health hazard Product name	Concentration %
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	:	Cobalt as organo-metal complex Chromium as Cr(III) organo-metal complex	18.128 16.946
Clean Air Act - Ozone Depleting Substances (ODS)	:	This product does not contain nor is it manufact	ured with ozone depleting substances.

Section 15. Regulatory information

3	Product name		Cor	centration %	
SARA 313	: Cobalt as organo-me	tal complex		128	
Form R - Reporting requirements		Chromium as Cr(III) organo-metal complex 16.946			
	Ingredient name	_%	<u>Section 304</u> CERCLA Hazardous Substance	<u>CERCLA</u> <u>Reportable</u> <u>Quantity</u> (Lbs)	Product Reportable Quantity (Lbs)
CERCLA Hazardous substances	Cobalt as organo- metal complex Chromium as Cr(III) organo-metal comple	18.128 16.946 x	Listed Listed	No RQ assigned No RQ assigned	ACE 190
State regulations				R	
PENNSYLVANIA - RTK	: Cobalt as organo-me Cr(III) organo-metal o		ixture of hydrocar	bons ex petroleu	m, Chromium as
California Prop 65	: WARNING: This proc cancer.	duct contains a	chemical known	to the State of Ca	alifornia to cause
	Ingredient name PARAFFIN OILS	Canc Yes.	er Reprodu No.	<u>ictive</u>	
Canadian regulations					
CEPA DSL	: All components are li	sted or exempt	ed.		
WHMIS Classes	: Class D-2B: Material	causing other	toxic effects (Toxi	c).	
	n classified in accordan MSDS contains all the in				
Brazil Regulations		4705 0.0040			
Classification system used	: Norma ABNT-NBR 1	14725-2:2012			
International lists	Australia inventory China inventory (IEC Japan inventory: All Korea inventory: All Malaysia Inventory New Zealand Inventory exempted. Philippines inventory (C	CSC): All comp components a components a (EHS Register cory of Chemic ry (PICCS): All	oonents are listed re listed or exemp re listed or exemp): Not determined cals (NZIoC): All o components are	or exempted. oted. oted. components are l	

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	0
Physical hazards	0
Personal protection	Х

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)	on : Health 2 0 Flammability Instability Special
Response (material is i	with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted not the complete and official position of the National Fire Protection Association, on the subject which is represented only by the standard in its entirety.
intended to reactivity ha recommend	2001, National Fire Protection Association, Quincy, MA 02269. This warning system is be interpreted and applied only by properly trained individuals to identify fire, health and azards of chemicals. The user is referred to certain limited number of chemicals with ded classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. e chemicals are classified by NFPA or not, anyone using the 704 systems to classify

chemicals does so at their own risk.

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Date of issue	: 1/27/2014.
Date of previous issue	: No previous validation.
Version	1 8

Indicates information that has changed from previously issued version.

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While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Section 16. Other information

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY REPARTSUPPLIES & CLOTHING BLANKS SIN MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO CO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.

SAFETY DATA SHEET



LANASET® YELLOW 4GN

Section 1. Identification

GHS product identifier		LANASET® YELLOW 4GN
Product code	÷	00042219
Other means of identificatio	n :	Not available.
Product type	:	Solid.
Material uses	:	Textile dye
Supplier's details	:	Huntsman International, LLC Textile Effects Division P.O. Box 4980 The Woodlands, TX 77387 Customer service telephone: (888) 514-4558
		Cusioner service telephone. (666) 514-4556
e-mail address of person responsible for this SDS	:	MSDS@huntsman.com
Emergency telephone number (24h/7day)	:	Chemtrec: (800) 424-9300 or (703) 527-3887

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Section 2. Hazards identification

OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	:	RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
GHS label elements Hazard pictograms		
Signal word	:	Danger
Hazard statements	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.
Precautionary statements	:	Wear protective gloves: < 1 hour (breakthrough time): butyl or neoprene. In case of inadequate ventilation wear respiratory protection: Recommended: Respiratory protection, filter P3. Avoid release to the environment. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Disodium 1,1'-isopropylidenedi-p-phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H-pyrazol-5-yl]azo]benzenesulphonate]	30 - 60	72828-69-4
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl)amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2,5-dichlorobenzenesulfonate	7 - 13	70247-70-0
Sodium 4-chloro-3-[4-[[5-chloro-2-(2-chlorophenoxy)phenyl]azo]-4, 5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]benzenesulphonate	3 - 7	72479-28-8
PARAFFIN OILS	1-3	8012-95-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary fi	rst aid measures
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
Skin contact	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion COLORERIC	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed Potential acute health effects

Section 4. First a	ia measures
Eye contact	: No known significant effects or critical hazards.
Inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
<u>Over-exposure signs/sym</u>	ptoms
Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: wheezing and breathing difficulties asthma
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.
Notes to physician	 No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point	: Closed cup: Not applicable.
Extinguishing media Suitable extinguishing media Unsuitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.: None known.
Specific hazards arising from the chemical Hazardous thermal decomposition products	 This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Decomposition products may include the following materials: carbon dioxide Carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides

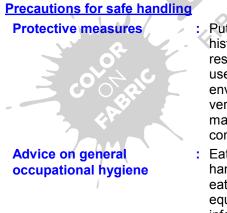
Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Not explosive

Section 6. Accidental release measures

Personal precautions, protectiv	ve equipment and emergency procedures
For non-emergency : personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders :	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions :	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for : containment and cleaning up	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage



Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, : including any incompatibilities

Section 7. Handling and storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters	•	
Occupational exposure lim	ite	
Ingredient name		Exposure limits
PARAFFIN OILS		ACGIH TLV (United States, 6/2013). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours.
Appropriate engineering controls	vapor or mist, use process en	tion. If user operations generate dust, fumes, gas, closures, local exhaust ventilation or other engineering ure to airborne contaminants below any its.
Environmental exposure controls	they comply with the requirem cases, fume scrubbers, filters	work process equipment should be checked to ensure ents of environmental protection legislation. In some or engineering modifications to the process o reduce emissions to acceptable levels.
Individual protection measu	res	
Hygiene measures	eating, smoking and using the Appropriate techniques should Contaminated work clothing sl	ce thoroughly after handling chemical products, before lavatory and at the end of the working period. I be used to remove potentially contaminated clothing hould not be allowed out of the workplace. Wash reusing. Ensure that eyewash stations and safety station location.
Eye/face protection	assessment indicates this is n gases or dusts. If contact is p	n an approved standard should be used when a risk ecessary to avoid exposure to liquid splashes, mists, ossible, the following protection should be worn, es a higher degree of protection: safety glasses with
Hand protection	be worn at all times when han this is necessary. Considering check during use that the glov should be noted that the time different for different glove ma	s gloves complying with an approved standard should dling chemical products if a risk assessment indicates g the parameters specified by the glove manufacturer, es are still retaining their protective properties. It to breakthrough for any glove material may be nufacturers. In the case of mixtures, consisting of ction time of the gloves cannot be accurately bugh time): butyl or neoprene
Body protection		t for the body should be selected based on the task involved and should be approved by a specialist
Other skin protection		additional skin protection measures should be ing performed and the risks involved and should be e handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection, filter P3
Thermal hazards	: Not available.

Section 9. Physical and chemical properties

<u>Appearance</u>				INCE 1969
Physical state	1	Solid. [granules]		
Color	:	Orange.		
Odor	:	Odorless.		, CV
Odor threshold	:	Not applicable.		7
рН	:	8.5 to 9 [Conc. (% w/w): 2%]		2
Melting point/Freezing point	:	Not available.	F	
Boiling/condensation point	:	Not available.		
Flash point	:	Closed cup: Not applicable.		
Evaporation rate	:	Not applicable.		
Flammability (solid, gas)	:	Not available.		
Lower and upper explosive (flammable) limits	:	 8.5 to 9 [Conc. (% w/w): 2%] Not available. Not available. Not applicable. Not available. Not available. 		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	:	Not available.		
Solubility in water	:	Not available.		
Water Solubility Result	:	100 g/l	30	deg C
Partition coefficient: n- octanol/water	1	Not available.		
Auto-ignition temperature	4	Not available.		
Decomposition temperature	:	>190°C (>374°F)		
Ignition Temperature (Deg):	450 °C		
C) : SIT > 450 *ASTM- D1929B		BEI		
Explosive properties	:	Not explosive		
Oxidizing properties	:	None.		
Density	:	0.7 to 0.8 g/cm³ [20°C (68°F)]		
Viscosity	1	Dynamic (room temperature): Not applicable. Kinematic (room temperature): Not applicable.		

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal condition should not be produce

ons of storage and use, hazardous decomposition products ced. should not be prod

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information					
formation on toxicological	<u>effects</u>				
Acute toxicity				CV	
Product/ingredient name	Test	Endpoint	Species	Result	
Disodium 1,1'- isopropylidenedi-p- phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H- pyrazol-5-yl]azo] benzenesulphonate]	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	
Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat	>15000 mg/kg	
PARAFFIN OILS	-	LC50 Inhalation Dusts and mists	Rat	2062 mg/l	
	-	LD50 Oral	Rat	22000 mg/kg	
LANASET YELLOW 4GN		LD50 Oral	Rat	>5000 mg/kg	

Product/ingredient name Test	Species	Result
LANASET YELLOW 4GN -	Rabbit	Eyes - Non-irritant.
-	Rabbit	Skin - Non-irritant.

Conclusion/Summary

Skin

	Non-irritating to the skin.	
b	Disodium 1,1'-	No additional information.
	isopropylidenedi-p-	
	phenylenebis[2-[
	[5-amino-3-methyl-1-	
	(3-sulphonatophenyl)-1H-	
	pyrazol-5-yl]azo]	
	benzenesulphonate]	
	Sodium 4-(4-((5-(No additional information.
	(2-Bromo-1-oxo-2-propenyl)	
	amino)-2-sulfophenyl)	
	azo)-3-methylpyrazolon-1-yl)-2,	
	5-dichlorobenzenesulfonate	
	Sodium 4-chloro-3-[4-[No additional information.
	[5-chloro-2-	

	(2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate PARAFFIN OILS	No additional information.
Eyes :	Non-irritating to the eyes.	
	Disodium 1,1'- isopropylidenedi-p- phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H- pyrazol-5-yl]azo] benzenesulphonate]	No additional information.
	Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	No additional information.
	Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate	No additional information.
	PARAFFIN OILS	No additional information.
Respiratory :	Disodium 1,1'- isopropylidenedi-p- phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H- pyrazol-5-yl]azo] benzenesulphonate]	No additional information.
	Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	No additional information.
COLOR FABRIC	Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate	No additional information.
	PARAFFIN OILS	No additional information.

Sensitization

-

Product/ingredient name	Test	Route of exposure	Species	Result		
Disodium 1,1'- isopropylidenedi-p- phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H- pyrazol-5-yl]azo] benzenesulphonate]	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing		
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing		
Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing		
LANASET YELLOW 4GN	OECD 406 Skin Sensitization	skin	Guinea pig	Sensitizing		

Conclusion/Summary

Respiratory

: This dyestuff contains C.I. Reactive Yellow 39 for which cases of respiratory sensitisation have been observed. Care should be taken to avoid inhalation. Should an individual become sensitized a physician should be consulted and all contact with reactive dyes must cease immediately.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

<u>Specific target organ toxicity (repeated exposure)</u> Not available.

Aspiration hazard Not available.

Information on the likely : Not available. routes of exposure

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.	
Inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposu to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.	re
Skin contact	: May cause an allergic skin reaction.	
Ingestion	: No known significant effects or critical hazards.	
Symptoms related to the	e physical, chemical and toxicological characteristics	
Eye contact	: No specific data.	0
Inhalation	 physical, chemical and toxicological characteristics No specific data. Adverse symptoms may include the following: wheezing and breathing difficulties asthma Adverse symptoms may include the following: irritation)
Skin contact	: Adverse symptoms may include the following: irritation redness	
Ingestion	: No specific data.	
Delayed and immediate	effects and also chronic effects from short and long term exposure	
Short term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
Long term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
Potential chronic healt	effects	
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed very low levels.	to t

- **Carcinogenicity Mutagenicity** Teratogenicity **Developmental** effects **Fertility effects**
- : No known significant effects or critical hazards.
- : No known significant effects or critical hazards.
 - : No known significant effects or critical hazards.
 - No known significant effects or critical hazards.

: No known significant effects or critical hazards.

Numerical measures of toxicity Acute toxicity estimates

Not available.

Other information : Not available.

Toxicity

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Disodium 1,1'- isopropylidenedi-p- phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H- pyrazol-5-yl]azo] benzenesulphonate]	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>51.1	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute	IC50	3 hours	Bacteria	>320	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	13	mg/l
	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	NOEC	48 hours	Daphnia	25.4	mg/l
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>189	mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute		3 hours	Bacteria	>320	mg/l
Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours	Daphnia	>18	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	30	mg/l
· July	OECD 202 Daphnia sp. Acute Immobilisation Test	Acute	NOEC	48 hours	Daphnia	5	mg/l
PARAFFIN OILS	Unknown guidelines Not known	Acute	LC0	96 hours	Fish	>1000	mg/l
E COL AIC	Unknown guidelines Not known	Acute	LC100	96 hours	Fish	>1000	mg/l
LANASET YELLOW 4GN	Unknown guidelines Not known OECD 209	Acute Acute	LC50 IC50	96 hours 3 hours	Fish Bacteria	>1000 >400	mg/l mg/l
	Activated Sludge, Respiration Inhibition Test						-
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	48 hours	Fish	45	mg/l

: Harmful to aquatic organisms if run directly to surface waters.

Persistence and degradability

Conclusion/Summary

Product/ingredient name	Test	Period	Result	
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	0 %	
Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4, 5-dihydro-3-methyl-5-oxo-1H- pyrazol-1-yl] benzenesulphonate	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	92.3 %	
LANASET YELLOW 4GN	OECD 303B Simulation Test - Aerobic Sewage Treatment – Biofilms	28 days	50 to 60 %	
Conclusion/Summary	: Partially eliminated by adsorption on	nto effluent treatment slu	dge.	
·	, , , , , , , , , , , , , , , , , , ,	eliminated by adsorption	•	

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
LANASET YELLOW 4GN	-	-	Not readily
Sodium 4-(4-((5-(-	-	Not readily
(2-Bromo-1-oxo-2-propenyl)		U.	
amino)-2-sulfophenyl)		9	
azo)-3-methylpyrazolon-1-yl)-2,		5	
5-dichlorobenzenesulfonate		Y	
Sodium 4-chloro-3-[4-[-	-	Not readily
[5-chloro-2-			
(2-chlorophenoxy)phenyl]			
azo]-4,			
5-dihydro-3-methyl-5-oxo-1H-			
pyrazol-1-yl]			
benzenesulphonate			
Bioaccumulative potential	BEE		

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Disodium 1,1'- isopropylidenedi-p- phenylenebis[2-[[5-amino-3-methyl-1- (3-sulphonatophenyl)-1H- pyrazol-5-yl]azo] benzenesulphonate]	0.57	-	low
Sodium 4-(4-((5-((2-Bromo-1-oxo-2-propenyl) amino)-2-sulfophenyl) azo)-3-methylpyrazolon-1-yl)-2, 5-dichlorobenzenesulfonate	-3.3	-	low
Sodium 4-chloro-3-[4-[[5-chloro-2- (2-chlorophenoxy)phenyl] azo]-4,	<3	-	low

5-dihydro-3-methyl-5-oxo-1H-		
pyrazol-1-yl]		
benzenesulphonate		

Mobility in soil

Not available.

Other adverse effects	: N	lo known significar	t effects or critical hazards.
Other ecological information	<u>1</u>		
BOD5	: 70	0 mgO2/g	
COD	: 98	80 mgO2/g	
тос	: 33	3 %	
Organohalogen content	: 1	%	Calculated as chloro
Phosphorus Content	: 0.	.27 %	as phosphate
Nitrogen Content	: 7.	.6 %	
Metal Content	: M	letal content under	the ETAD recommended limits.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

			1
DOT	2:	Not regulated.	
TDG	2:	Not regulated.	-
IMDG	4	Not regulated.	
IATA	:	Not regulated.	

Section 14. Transport information

Regulatory information	UN number	Classes	PG*	Label	Additional information	
DOT Classification	Not regulated.	-	-		-	
TDG Classification	Not regulated.	-	-		-	
IMDG Classification	Not regulated.	-	-			69
IATA Classification	Not regulated.	-	-			

Section 15. Regulatory information

Safety, health and environ	mental regulations specific for the product	
United States Regulations		
TCCA 9(b) inventory	All components are listed or evented	

Sodium phosphate; Pentasodium tripolyphosphate

United States Regulations

PG* : Packing gro	up			55	
Section 15. Reg	ulatory informa	ation		N	
Safety, health and environ	mental regulations spe	cific for the p	roduct	BY P	
United States Regulations	<u>s</u>		6		
TSCA 8(b) inventory	: All components are I	isted or exemp	oted.		
TSCA 5(a)2 final significant new use rule (SNUR)	: No ingredients listed		oted.		
TSCA 5(e) substance consent order	: No ingredients listed	15	9		
TSCA 12(b) export notification	: No ingredients listed	PPL			
SARA 311/312	: Immediate (acute) h	ealth hazard			
Clean Air Act - Ozone Depleting Substances (ODS)	: This product does no	ot contain nor i	is it manufactured v	with ozone deple	ting substances.
SARA 313	: No ingredients listed				
FARRIO	Ingredient name	<u>%</u>	<u>Section 304</u> <u>CERCLA</u> <u>Hazardous</u> <u>Substance</u>	<u>CERCLA</u> <u>Reportable</u> <u>Quantity</u> (Lbs)	<u>Product</u> <u>Reportable</u> <u>Quantity</u> (Lbs)
CERCLA Hazardous substances	Triphosphoric acid, pentasodium salt; Triphosphoric acid, sodium salt (1:5);	1.0964	Listed	5000	456038

Section 15. Regulatory information

State regulations			
PENNSYLVANIA - RTK	Mixture of hydrocarbons ex petroleum, Triphosphoric acid, pentasodium salt; Triphosphoric acid, sodium salt (1:5); Sodium phosphate; Pentasodium tripolyphosphate, Sodium sulfate		
California Prop 65	: WARNING: This product contains a chemical known to the State of California to caus cancer.		
	Ingredient name Cancer Reproductive		
	Ingredient name Cancer Reproductive PARAFFIN OILS Yes. No. : At least one component is not listed.		
Canadian regulations			
CEPA DSL	: At least one component is not listed.		
WHMIS Classes	: Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).		
	een classified in accordance with the hazard criteria of the Controlled Products MSDS contains all the information required by the Controlled Products Regulations		
Classification system used	: Norma ABNT-NBR 14725-2:2012		

Section 16. Other information

2

Hazardous Material :	Health	*	2
Information System (U.S.A.)	Flammability		0
	Physical hazards		0
	Personal protection		Х
The customer is responsibl	e for determining the PPE co	de fo	or this

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)

Section 16. Other information



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