



Version 1.12	Revision Date: 07/29/2019	SDS Number: 000000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014					
SECTION	1. IDENTIFICATION							
Produ	uct name:	ROYCO 899 MIL-PF	ROYCO 899 MIL-PRF-23699 (C/I)					
		CORROSION INHIBIT	ION TURBINE ENGINE OIL					
Produ	uct Use Description:	Lubricant						
Syno	nyms:	Synthetic Lubricant	Formulation					
Comp	pany:	Manufacturer Anderol Specialty Lubricants, a division of Lanxess Solutions US Inc. 215 Merry Lane East Hanover, NJ 07936 United States of America (USA) Telephone: +1 203-573-4596, Toll Free: +1 888-263-3765						
Emere ber:	gency telephone num-	CHEMTREC (24 hours) 800-424-9300						
		For additional emergency telephone numbers see section 16 of th Data Sheet.						
Prepa	red by	Product Safety Department (US) +1 866-430-2775						
		MSDSRequest@lanxe	ss.com					
Reco	mmended use of the ch	nemical and restrictions	s on use					
Reco	mmended use	: Lubricant						
Restr	ictions on use	: For industrial us	e only.					

## **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accor Reproductive toxicity	dance with 29 CFR 1910.1200 : Category 2
Long-term (chronic) aquatic hazard	: Category 2
GHS label elements Hazard pictograms	
Signal word	: Warning



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Version 1.12	Revision Date: 07/29/2019	SDS Number:Date of last issue: 11/19/201800000006922Date of first issue: 12/05/2014		
Hazar	d statements	: H361 Suspected of damaging fertility or the unborn child. H411 Toxic to aquatic life with long lasting effects.		
Preca	utionary statements	<ul> <li>Prevention:         <ul> <li>P201 Obtain special instructions before use.</li> <li>P202 Do not handle until all safety precautions have been read and understood.</li> <li>P273 Avoid release to the environment.</li> <li>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</li> </ul> </li> <li>Response:         <ul> <li>P308 + P313 IF exposed or concerned: Get medical advice/ attention.</li> <li>P391 Collect spillage.</li> </ul> </li> </ul>		
		Storage: P405 Store locked up.		
		Disposal:		
		P501 Dispose of contents/ container to an approved waste disposal plant.		

## Other hazards

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

## Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
tris(methylphenyl) phosphate	1330-78-5	>= 1 - < 2.5
N-1-naphthylaniline	90-30-2	>= 0.25 - < 1

### **SECTION 4. FIRST AID MEASURES**

If inhaled	<ul> <li>If inhaled Move to fresh air.</li> <li>If not breathing, give artificial respiration.</li> <li>If breathing is difficult, give oxygen.</li> <li>In case of bluish discolouration (lips, ear lobes, fingernails give oxygen as quickly as possible.</li> <li>If symptoms persist, call a physician.</li> </ul>	),
In case of skin contact	<ul> <li>In case of skin contact</li> <li>Wash off with soap and water.</li> <li>Remove contaminated clothing and shoes.</li> <li>Wash contaminated clothing before re-use.</li> <li>Get medical attention if irritation develops and persists.</li> </ul>	
In case of eye contact	: In case of eye contact	



Vers 1.12		Revision Date: 07/29/2019		9S Number: 0000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014	
					with plenty of water, also under the eyelids. sists, consult a specialist.	
	If swallowed		:	If swallowed, DO NOT induce vomiting. Consult a physician if necessary.		
	Most important symptoms and effects, both acute and delayed		:	None known.		
	Protection of first-aiders		:	First Aid responders should pay attention to self-protection and use the recommended protective clothing If potential for exposure exists refer to Section 8 for specific personal protective equipment.		
	Notes to physician		:	For specialist advice physicians should contact the Poisons Information Service.		
SEC	TION 5	. FIREFIGHTING MEA	SU	RES		
	Suitable extinguishing media		:	Carbon dioxide (CO2) Dry powder Foam Alcohol-resistant foam Water mist		
	Unsuitable extinguishing media		:	High volume water jet		
	Specific hazards during fire- fighting		:	Burning produces noxious and toxic fumes.		
	Further	information	:	In the event of fire, cool tanks with water spray.		
	Special protective equipment for firefighters		:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.		

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Forms slippery/greasy layers with water.
Environmental precautions	:	Should not be released into the environment. Do not contaminate water. Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	:	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

### SECTION 7. HANDLING AND STORAGE





Version 1.12	Revision Date: 07/29/2019		DS Number: 00000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014	
Advice on safe handling		:	Keep container closed when not in use. Do not use pressure to empty drums. Ensure all equipment is electrically grounded before beginnin transfer operations.		
Conditions for safe storage		:	Keep container tightly closed in a dry and well-ventilated place.		
Further information on stor- age stability			Stable under reco	ommended storage conditions.	

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

	1		1/-1 · 1 · ·		D '.		
Components		CAS-No.	Value type	Control parame-	Basis		
			(Form of	ters / Permissible			
			exposure)	concentration			
N-1-naphthylaniline		90-30-2	TWA	10 ml/m3	ACGIH		
Engineering measures	:			ystem and safety showers a	are close		
Personal protective equipm	ent	:					
Respiratory protection	:	Breathing apparatus needed only when aerosol or mist is formed. In the case of vapour formation use a respirator with an approved filter.					
Hand protection							
Remarks	:	Neoprene gloves					
Eye protection	:	Safety glasses with side-shields Tightly fitting safety goggles					
Skin and body protection	:	Impervious clothing					
Hygiene measures	:	Provide adequ	with skin, eyes a late ventilation. e dust or spray r	-			

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	clear
Odour	:	slight
Odour Threshold	:	No data available



Vers 1.12	-	Revision Date: 07/29/2019		S Number: )000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014
	рН		:	Not applicable	
	Pour po	bint	:	-65 °F / -54 °C	
	Boiling point/boiling range		:	750 °F / 399 °C (39.8 hPa)	
	Flash p	oint	:	>= 475 °F / 246 °	°C
				Method: No infor	mation available.
	Evapor	ation rate	:	No data available	9
		explosion limit / Upper bility limit	:	No data available	9
		explosion limit / Lower bility limit	:	No data available	9
	Vapour	pressure	:	No data available	9
	Relative	e vapour density	:	No data available	9
	Relative	e density	:	0.99 - 1.1 (60.1 °	F / 15.6 °C)
	Solubility(ies) Water solubility		:	slightly soluble	
				< 1 g/l	
	Solu	bility in other solvents	:	No data available	9
	Partition octanol	n coefficient: n- /water	:	No data available	2
	Auto-ig	nition temperature	:	not determined	
		celerating decomposi- perature (SADT)	:	Method: No infor	mation available.
				Method: No infor	mation available.
	Viscosity Viscosity, dynamic		:	4.90 - 23.0 mPa. Method: ASTM D	s (104 - 212 °F / 40 - 100 °C) ) 445
	Visc	osity, kinematic	:	4.7 mm2/s (212 °	°F / 100 °C)
				25.5 mm2/s (104	• °F / 40 °C)
				12000 mm2/s (-4	0 °F / -40 °C)
	Oxidizir	ng potential	:	No information a	vailable.



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Version 1.12	Revision Date: 07/29/2019		S Number: 0000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014			
Molecular weight		:	No data availab	le			
SECTION	10. STABILITY AND R	EAC	ΤΙVITY				
Read	Reactivity		No dangerous r	No dangerous reaction known under conditions of normal use.			
Chen	nical stability	:	No decomposition if stored and applied as directed.				
Poss tions	Possibility of hazardous reac- tions		Hazardous poly	merisation does not occur.			
Cond	litions to avoid	:	Heat				
Incor	npatible materials	:	Strong acids an	d strong bases			
Haza produ	rdous decomposition	:	Carbon oxides				
SECTION	11. TOXICOLOGICAL	INFC	ORMATION				
Infor	mation on likely routes	s of e	exposure				
Inhalation Eye contact							

Eye contact Skin contact Skin Absorption

## Acute toxicity

## Product:

Acute oral toxicity	:	Acute toxicity estimate: 2,621 mg/kg
		Method: Calculation method

### Components:

N-1-naphthylaniline	
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Skin corrosion/irritation		
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 5,000 mg/kg
Acute oral toxicity	:	LD50 (Rat): 1,625 mg/kg

### **Components:**

N-1-	naphthylaniline:	
~		

Species	:	Rabbit
Method	:	Draize Test
Result	:	No skin irritation





Version 1.12	Revision Date: 07/29/2019	SDS Number:Date of last issue: 11/19/201800000006922Date of first issue: 12/05/2014
Serio	ous eye damage/eye	ritation
Com	ponents:	
N-1-n	aphthylaniline:	
Spec	ies	: Rabbit
Resu Metho		<ul><li>No eye irritation</li><li>OECD Test Guideline 405</li></ul>
Resp	iratory or skin sensi	sation
Com	ponents:	
N-1-n	aphthylaniline:	
Test		: Maximisation Test
Speci		: Guinea pig
Resu	lt	: Probability or evidence of low to moderate skin sensitisation rate in humans
Test	Tvpe	: Patch Test
Spec		: Humans
Resu	lt	: Probability or evidence of low to moderate skin sensitisation rate in humans
Test	Tvpe	: Maximisation Test
Spec Resu	ies	<ul> <li>Guinea pig</li> <li>Probability or evidence of low to moderate skin sensitisation rate in humans</li> </ul>
Germ	n cell mutagenicity	
Com	ponents:	
tris(n	nethylphenyl) phosp	ate:
	cell mutagenicity - ssment	: In vitro tests did not show mutagenic effects
<b>N-1-</b> n	aphthylaniline:	
Geno	toxicity in vitro	: Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative
		Test Type: Chinese Hamster Ovary (CHO) Metabolic activation: with and without metabolic activation Result: negative
Geno	toxicity in vivo	: Test Type: in vivo assay Species: Mouse (male) Result: negative
	i cell mutagenicity - ssment	: Animal testing did not show any mutagenic effects., Tests or bacterial or mammalian cell cultures did not show mutagenic effects.





/ersion .12	Revision Date: 07/29/2019		Number: 000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014
Carcir	nogenicity			
Comp	onents:			
tris(m	ethylphenyl) phosph	ate:		
Carcin ment	ogenicity - Assess-	: /	Animal testing die	d not show any carcinogenic effects.
N-1-na	aphthylaniline:			
Carcin ment	ogenicity - Assess-	: /	Animal testing di	d not show any carcinogenic effects.
IARC				ent at levels greater than or equal to 0.1% is onfirmed human carcinogen by IARC.
OSHA			nis product prese egulated carcino	ent at levels greater than or equal to 0.1% is gens.
NTP				ent at levels greater than or equal to 0.1% is carcinogen by NTP.
Repro	ductive toxicity			
<u>Comp</u>	onents:			
tris(m	ethylphenyl) phosph	ate:		
Effects ment	s on foetal develop-	/ [	Species: Rat Application Route Developmental T Method: OPPTS	oxicity: LOAEL: 20 mg/kg
Reproo sessm	ductive toxicity - As- ent			naging fertility or the unborn child. atogenic effects in animal experiments.
sтот	- repeated exposure			
	onents:			
	aphthylaniline:			
Expos	ure routes Organs	: L : N	Dral Liver, Kidney May cause dama exposure.	ge to organs through prolonged or repeated
Furthe	er information			
Produ	ct:			
Remar		: 7	The product itsel	has not been tested.





SECTION 12. ECOLOGICAL INFORMATION         Ecotoxicity         Product:         Toxicity to daphnia and other aquatic invertebrates       EC50 (Daphnia magna (Water fleal)): > 100 mg/l Exposure time: 48 h Remarks: Information given is based on data obtained from similar substances.         Components:       tris(methylphenyl) phosphate:         Toxicity to fish       :       LC50 (Oncorhynchus mykiss (rainbow trout)): 0.75 mg/l Exposure time: 96 h         LC50 (Oncorhynchus mykiss (rainbow trout)): 0.100 mg/l Exposure time: 96 h       LC50 (Oncorhynchus mykiss (rainbow trout)): 0.6 mg/l Exposure time: 96 h         Toxicity to daphnia and other aquatic invertebrates       EC50 (Daphnia magna (Water flea)): 0.146 mg/l Exposure time: 48 h Method: OECD Test Guideline 202         EC50 (Daphnia magna (Water flea)): 0.27 mg/l Exposure time: 3 h Test Type: Respiration inhibition         Nt-Factor (Acute aquatic tox- I ticty)       1         Toxicity to fish       :       LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l Exposure time: 96 h Toxicity to fish Test Type: Respiration inhibition         Nt-naphthylaniline:       :       1         Toxicity to fish       :       EC50 (Daphnia magna (Water flea)): 0.68 mg/l Exposure time: 96 h Test Type: Semi-static test Analytical monitoring: yes         Toxicity to fish       :       EC50 (Concorhynchus mykiss (rainbow trout)): 0.44 mg/l Exposure time: 96 h Test Type: Semi-static test Analytical monitoring: yes         Toxicity to fish       :	Versi 1.12	ion	Revision Date: 07/29/2019	-	DS Number:Date of last issue: 11/19/20180000006922Date of first issue: 12/05/2014
EcotoxicityProduct: aquatic invertebratesECS0 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Remarks: Information given is based on data obtained from similar substances.Components: tris(methylphenyl) phosphate: Toxicity to fishECS0 (Oncorhynchus mykiss (rainbow trout)): 0.75 mg/l 					
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Exposure time: 3 h Test Type: Respiration inhibitionN-1-naphthylaniline:Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yesToxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 0.68 mg/l Exposure time: 48 h Test Type: semi-static test Analytical monitoring: yesM-Factor (Acute aquatic tox- icity): 1Toxicity to daphnia and other aquatic invertebrates (Chron-: NOEC (Daphnia magna (Water flea)): 0.02 mg/l Exposure time: 21 d			or (Acute aquatic tox-	:	1
<ul> <li>Toxicity to fish</li> <li>LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes</li> <li>Toxicity to daphnia and other aquatic invertebrates</li> <li>EC50 (Daphnia magna (Water flea)): 0.68 mg/l Exposure time: 48 h Test Type: semi-static test Analytical monitoring: yes</li> <li>M-Factor (Acute aquatic tox- icity)</li> <li>Toxicity to daphnia and other aquatic invertebrates (Chron-</li> <li>NOEC (Daphnia magna (Water flea)): 0.02 mg/l Exposure time: 21 d</li> </ul>	-	Toxicity	/ to microorganisms	:	Exposure time: 3 h
<ul> <li>Toxicity to fish</li> <li>LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes</li> <li>Toxicity to daphnia and other aquatic invertebrates</li> <li>EC50 (Daphnia magna (Water flea)): 0.68 mg/l Exposure time: 48 h Test Type: semi-static test Analytical monitoring: yes</li> <li>M-Factor (Acute aquatic tox- icity)</li> <li>Toxicity to daphnia and other aquatic invertebrates (Chron-</li> <li>NOEC (Daphnia magna (Water flea)): 0.02 mg/l Exposure time: 21 d</li> </ul>		N-1-na	phthylaniline:		
aquatic invertebrates       Exposure time: 48 h         Test Type: semi-static test         Analytical monitoring: yes         M-Factor (Acute aquatic tox- icity)       :         Toxicity to daphnia and other aquatic invertebrates (Chron- icity)       :         NOEC (Daphnia magna (Water flea)): 0.02 mg/l Exposure time: 21 d				:	Exposure time: 96 h Test Type: semi-static test
icity) Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.02 mg/l aquatic invertebrates (Chron- Exposure time: 21 d				:	Exposure time: 48 h Test Type: semi-static test
aquatic invertebrates (Chron- Exposure time: 21 d			or (Acute aquatic tox-	:	1
	á	aquatic	invertebrates (Chron-	:	Exposure time: 21 d





Version 1.12	Revision Date: 07/29/2019	-	05 Number: 0000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014
M-Fa toxic	actor (Chronic aquatic ity)	:	1	
Toxi	city to microorganisms	:	EC50 (Protozoa): Exposure time: 48	
			EC50 (Bacteria): Exposure time: 3	
Pers	sistence and degradabi	ility		
Proc	luct:			
Biod	egradability	:	Result: No data a	vailable
<u>Com</u>	ponents:			
N-1-	naphthylaniline:			
Biod	egradability	:		00 mg/l to the results of tests of biodegradability this dily biodegradable. 0 % 3 d
Bioa	occumulative potential			
Proc	luct:			
Bioa	ccumulation	:	Remarks: No data	a available
<u>Com</u>	<u>iponents:</u>			
•	methylphenyl) phosph	ate:		
	tion coefficient: n- nol/water	:	Pow: 5.93	
N-1-	naphthylaniline:			
Bioa	ccumulation	:	Species: Cyprinus Bioconcentration Exposure time: 56 Temperature: 77 Concentration: 0	factor (BCF): 427 - 2,730 S d °F / 25 °C
	tion coefficient: n- nol/water	:	log Pow: 4.28	
Mob	ility in soil			
Proc	luct:			
			10/14	





Version 1.12	Revision Date: 07/29/2019	SDS Number: 000000006922		Date of last issue: 11/19/2018 Date of first issue: 12/05/2014
Mobility		:	Remarks: No dat	a available
Othe	r adverse effects			
	u <u>ct:</u> Its of PBT and vPvB ssment	:		ains no substance considered to be persis- ating and toxic (PBT).
Ozon	e-Depletion Potential	:	tection of Stratos Substances Remarks: This pr tured with a Class	FR Protection of Environment; Part 82 Pro- pheric Ozone - CAA Section 602 Class I oduct neither contains, nor was manufac- s I or Class II ODS as defined by the U.S. ction 602 (40 CFR 82, Subpt. A, App.A + B).
Addit matio	ional ecological infor- n	:	No information or	n ecology is available.

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods		
Waste from residues	:	Dispose of as special waste in compliance with local and na- tional regulations. Dispose of wastes in an approved waste disposal facility. Do not contaminate ponds, waterways or ditches with chemi- cal or used container. Do not dispose of waste into sewer.
Contaminated packaging	:	Do not burn, or use a cutting torch on, the empty drum.

### SECTION 14. TRANSPORT INFORMATION

## **International Regulations**

IATA-DGR UN/ID No. Proper shipping name Class Packing group Labels	<ul> <li>UN 3082</li> <li>Environmentally hazardous substance, liquid, n.o.s. (tris(methylphenyl) phosphate, Phenyl-alpha-naphthylamine)</li> <li>9</li> <li>III</li> <li>Miscellaneous</li> </ul>
Environmentally hazardous	: yes
<b>IMDG-Code</b>	<ul> <li>UN 3082</li> <li>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,</li></ul>
UN number	N.O.S.
Proper shipping name	(tris(methylphenyl) phosphate, Phenyl-alpha-naphthylamine)
Class	: 9
Packing group	: III





Version 1.12	Revision Date: 07/29/2019		9S Number: 0000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014
Labels EmS ( Marine		:	9 F-A, S-F yes	
	port in bulk according plicable for product as			OL 73/78 and the IBC Code
Natior	nal Regulations			
	<b>R</b> /NA number r shipping name	:	UN 3082 Environmentally h	nazardous substances, liquid, n.o.s.
Class Packin Labels ERG (	ig group	:	(tris(methylpheny 9 III CLASS 9 171	· · · · ·
		-	naphthylamine)	· · · · · · · · · · · · · · · · · · ·

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### **SECTION 15. REGULATORY INFORMATION**

### EPCRA - Emergency Planning and Community Right-to-Know Act

### **CERCLA Reportable Quantity**

Components	CAS-No.	•	Calculated product RQ
		(lbs)	(lbs)
1-naphthylamine	134-32-7	100	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
aniline	62-53-3	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	Reproductive toxicity
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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).



## ROYCO 899 MIL-PRF-23699 (C/I)

Version	Revision Date:	SDS Number:	Date of last issue: 11/19/2018
1.12	07/29/2019	00000006922	Date of first issue: 12/05/2014

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

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 can expose you to chemicals including aniline, 1-naphthylamine, 2naphthylamine, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.

The components of this product are reported in the following inventories:				
DSL	:	All components of this product are on the Canadian DSL		
AICS	:	Not in compliance with the inventory		
NZIoC	:	Not in compliance with the inventory		
ENCS	:	On the inventory, or in compliance with the inventory		
KECI	:	Not in compliance with the inventory		
PICCS	:	Not in compliance with the inventory		
IECSC	:	Not in compliance with the inventory		
TCSI	:	On the inventory, or in compliance with the inventory		
US.TSCA	:	On TSCA Inventory		

### **SECTION 16. OTHER INFORMATION**

### **Further information**

#### Other Emergency Phone Number

Latin America:	Brazil	+55 11 3197 5891
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 55 5004 8763

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)



		evision Date: 7/29/2019	SDS Number: 000000006922	Date of last issue: 11/19/2018 Date of first issue: 12/05/2014
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ACGIH / TWA

: Time-Weighted Average Limit (TWA)

AICS - Australian Inventory of Chemical Substances: ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI -Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB -Very Persistent and Very Bioaccumulative

**Revision Date** 

: 07/29/2019

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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