

Creation Date 29-Aug-2018 Revision Date 29-Aug-2018 Revision Number 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Description: Phenol, saturated solution

Cat No. : J75829a

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company Thermo Fisher (Kandel) GmbH

Zeppelinstr. 7b

76185 Karlsruhe / Germany Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

E-mail address tech@alfa.com

www.alfa.com

Product safety Tel + +049 (0) 7275 988687-0

1.4. Emergency telephone number

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz

www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Acute oral toxicity

Acute dermal toxicity

Acute Inhalation Toxicity - Vapors

Skin Corrosion/irritation

Serious Eye Damage/Eye Irritation

Germ Cell Mutagenicity

Specific target organ toxicity - (repeated exposure)

Category 3 (H311)

Category 3 (H331)

Category 1 B (H314)

Category 1 (H318)

Category 2 (H341)

Category 2 (H373)

Environmental hazards

Based on available data, the classification criteria are not met

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2.2. Label elements



Signal Word

Danger

Hazard Statements

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H331 - Toxic if inhaled

H314 - Causes severe skin burns and eye damage

H341 - Suspected of causing genetic defects

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/ physician

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Phenol	108-95-2	EEC No. 203-632-7	72.0	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Muta. 2 (H341) STOT RE 2 (H373)
Water	7732-18-5	231-791-2	28.0	-

Full text of Hazard Statements: see section 16

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SECTION	J 4.	FIRST	ΔΙΙ)	MFASURFS	

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4.1. Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Inhalation Move to fresh air.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

4.2. Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO2).

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

6.2. Environmental precautions

See Section 12 for additional ecological information.

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6.3. Methods and material for containment and cleaning up

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Ensure adequate ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Component	European Union	The United Kingdom	France	Belgium	Spain
Phenol	Possibility of significant	STEL: 4 ppm 15 min	TWA / VME: 2 ppm (8	TWA: 2 ppm 8 uren	STEL / VLA-EC: 4 ppm
	uptake through the skin	STEL: 16 mg/m ³ 15 min	heures). restrictive limit	TWA: 8 mg/m ³ 8 uren	(15 minutos).
	TWA: 2 ppm 8 hr	TWA: 2 ppm 8 hr	TWA / VME: 7.8 mg/m ³	STEL: 4 ppm 15	STEL / VLA-EC: 16
	TWA: 8 mg/m ³ 8 hr	TWA: 7.8 mg/m ³ 8 hr	(8 heures). restrictive	minuten	mg/m³ (15 minutos).
	STEL: 4 ppm 15 min	Skin	limit	STEL: 16 mg/m ³ 15	TWA / VLA-ED: 2 ppm
	STEL: 16 mg/m ³ 15 min		STEL / VLCT: 4 ppm.	minuten	(8 horas)
			restrictive limit	Huid	TWA / VLA-ED: 8 mg/m ³
			STEL / VLCT: 15.6		(8 horas)
			mg/m³. restrictive limit		Piel
			Peau		

Component	Italy	Germany	Portugal	The Netherlands	Finland
Phenol	TWA: 2 ppm 8 ore.	TWA: 2 ppm (8	STEL: 4 ppm 15	huid	TWA: 2 ppm 8 tunteina
	Media Ponderata nel	Stunden). AGW -	minutos	TWA: 8 mg/m ³ 8 uren	TWA: 8 mg/m ³ 8
	Tempo	exposure factor 2	STEL: 16 mg/m ³ 15	_	tunteina
	TWA: 8.0 mg/m ³ 8 ore.	TWA: 8 mg/m³ (8	minutos		STEL: 4 ppm 15
	Media Ponderata nel	Stunden). AGW -	TWA: 2 ppm 8 horas		minuutteina
	Tempo	exposure factor 2	TWA: 8 mg/m ³ 8 horas		STEL: 16 mg/m ³ 15
	STEL: 4 ppm 15 minuti.	Haut	Pele		minuutteina
	Breve termine				lho
	STEL: 16 mg/m ³ 15				
	minuti. Breve termine				
	Pelle				

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Component	Austria	Denmark	Switzerland	Poland	Norway
Phenol	Haut	TWA: 1 ppm 8 timer	Haut/Peau	STEL: 16 mg/m ³ 15	TWA: 1 ppm 8 timer
	MAK-KZW: 4 ppm 15	TWA: 4 mg/m ³ 8 timer	STEL: 5 ppm 15	minutach	TWA: 4 mg/m ³ 8 timer
	Minuten	Hud	Minuten	TWA: 7.8 mg/m ³ 8	STEL: 3 ppm 15
	MAK-KZW: 16 mg/m ³ 15		STEL: 19 mg/m ³ 15	godzinach	minutter. value from the
	Minuten		Minuten		regulation
	MAK-TMW: 2 ppm 8		TWA: 5 ppm 8 Stunden		STEL: 12 mg/m ³ 15
	Stunden		TWA: 19 mg/m ³ 8		minutter. value from the
	MAK-TMW: 8 mg/m ³ 8		Stunden		regulation
	Stunden				Hud
		•			
Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Phenol	TWA: 2 ppm	kože	TWA: 2 ppm 8 hr.	Skin-potential for	TWA: 7.5 mg/m ³ 8
	TWA: 8 mg/m ³	TWA-GVI: 2 ppm 8	TWA: 8 mg/m ³ 8 hr.	cutaneous absorption	hodinách.
	STEL: 4 ppm	satima.	STEL: 4 ppm 15 min	STEL: 16 mg/m ³	Potential for cutaneous
	STEL: 16 mg/m ³	TWA-GVI: 8 mg/m³ 8	STEL: 16 mg/m³ 15 min	STEL: 4 ppm	absorption
	Skin notation	satima.	Skin	TWA: 8 mg/m ³	Ceiling: 15 mg/m ³
		STEL-KGVI: 4 ppm 15		TWA: 2 ppm	
		minutama.			
		STEL-KGVI: 16 mg/m ³			
		15 minutama.			
Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Phenol	Nahk	Skin notation	skin - potential for	STEL: 16 mg/m ³ 15	TWA: 1 ppm 8
	TWA: 2 ppm 8 tundides.	TWA: 2 ppm 8 hr	cutaneous absorption	percekben. CK	klukkustundum.
	TWA: 7.8 mg/m ³ 8	TWA: 8 mg/m ³ 8 hr	STEL: 4 ppm	TWA: 8 mg/m³ 8	TWA: 4 mg/m ³ 8
	tundides.	STEL: 16 mg/m ³ 15 min	STEL: 16 mg/m ³	órában. AK	klukkustundum.
		STEL: 4 ppm 15 min	TWA: 2 ppm	lehetséges borön	Skin notation
		• •	TWA: 8 mg/m ³	keresztüli felszívódás	Ceiling: 2 ppm
					Ceiling: 8 mg/m ³
	1 -6-2-	1.101	I	N# - 14 -	D
Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Phenol	skin - potential for	TWA: 2 ppm IPRD	Possibility of significant	possibility of significant	Skin notation

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Phenol	skin - potential for	TWA: 2 ppm IPRD	Possibility of significant	possibility of significant	Skin notation
	cutaneous exposure	TWA: 8 mg/m³ IPRD	uptake through the skin	uptake through the skin	TWA: 2 ppm 8 ore
	STEL: 4 ppm	Oda	TWA: 2 ppm 8 Stunden	TWA: 2 ppm	TWA: 8 mg/m ³ 8 ore
	STEL: 16 mg/m ³	STEL: 4 ppm	TWA: 8 mg/m ³ 8	TWA: 8 mg/m ³	STEL: 4 ppm 15 minute
	TWA: 2 ppm	STEL: 16 mg/m ³	Stunden	STEL: 16 mg/m ³ 15	STEL: 16 mg/m ³ 15
	TWA: 8 mg/m ³	_	STEL: 16 mg/m ³ 15	minuti	minute
			Minuten	STEL: 4 ppm 15 minuti	
			STEL: 4 ppm 15		
			Minuten		

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Phenol	TWA: 0.3 mg/m ³ 0525	Ceiling: 16 mg/m ³	TWA: 2 ppm 8 urah	Binding STEL: 4 ppm 15	Deri
	Skin notation	Potential for cutaneous	TWA: 8 mg/m ³ 8 urah	minuter	TWA: 2 ppm 8 saat
	STEL: 1 mg/m ³ 0525	absorption	Koža	Binding STEL: 16	TWA: 8 mg/m ³ 8 saat
	_	TWA: 2 ppm	STEL: 4 ppm 15	mg/m ³ 15 minuter	STEL: 4 ppm 15 dakika
		TWA: 8 mg/m ³	minutah	TLV: 1 ppm 8 timmar.	STEL: 16 mg/m ³ 15
			STEL: 16 mg/m ³ 15	NGV	dakika
			minutah	TLV: 4 mg/m ³ 8 timmar.	
				NGV	
				Hud	

Biological limit valuesThis product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Component	European Union	United Kingdom	France	Spain	Germany
Phenol			Total Phenol: 250 mg/g	: 120 mg/g Creatinine	Phenol: 120 mg/g urine
			creatinine urine end of	urine end of shift	(end of shift after
			shift		hydrolysis;measured as
					mg/g Creatinine)

Component	Italy	Finland	Denmark	Bulgaria	Romania
Phenol		Total phenol: 1.3		Phenol: 200 µg/L urine	total Phenol: 50 mg/L
		mmol/L urine after the		at the end of exposure	urine end of shift
		shift.		or end of shift	

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Component	Gibraltar	Latvia	Slovak Republic	Luxembourg	Turkey
Phenol			Phenol: 200 mg/L urine		
		end of exposure or work			
			shift		

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres, Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) No information available

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral		(oyotonno)	(iooai)	(oyotonno)
Dermal				
Inhalation				

Predicted No Effect Concentration No information available. (PNEC)

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Safety glasses with side-shields (European standard - EN 166) **Eye Protection**

Hand Protection Protective gloves

Glove ma	terial	Breakthrough time	Glove thickness	EU standard	Glove comments
Disposable	gloves	See manufacturers	-	EN 374	(minimum requirement)
		recommendations			

Skin and body protection Long sleeved clothing

Inspect gloves before use, observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

When workers are facing concentrations above the exposure limit they must use **Respiratory Protection**

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

In case of insufficient ventilation wear suitable respiratory equipment Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure Small scale/Laboratory use

limits are exceeded or if irritation or other symptoms are experienced.

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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9.1. Information on basic physical and chemical properties

AppearanceClearPhysical StateLiquid

Odor No information available
Odor Threshold No data available
pH No information available

Melting Point/RangeNo data availableSoftening PointNo data availableBoiling Point/RangeNo information available

Flash Point No information available Method - No information available

Evaporation Rate
Flammability (solid,gas)
Explosion Limits
No data available
No information available
Lower 1.3 Vol %
Upper 9.5 Vol %

Vapor PressureNo data availableVapor DensityNo data available

Specific Gravity / Density

No data available

No data available

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog PowPhenol1.5

Autoignition Temperature
Decomposition Temperature
Viscosity
Explosive Properties
Oxidizing Properties

595 °C / 1103 °F
No data available
No data available
No information available
No information available

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

(Air = 1.0)

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous PolymerizationNo information available.Hazardous ReactionsNo information available.

10.4. Conditions to avoid

Protect from light.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

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11.1. Information on toxicological effects

No acute toxicity information is available for this product **Product Information**

(a) acute toxicity;

No data available Oral Dermal No data available Inhalation No data available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenol	LD50 = 340 mg/kg (Rat) LD50 = 317 mg/kg (Rat)	LD50 = 630 mg/kg (Rabbit)	LC50 = 316 mg/m ³ (Rat) 4 h
Water	-		

No data available (b) skin corrosion/irritation;

No data available (c) serious eye damage/irritation;

(d) respiratory or skin sensitization;

No data available Respiratory Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

Component	EU	UK	Germany	IARC
Phenol			Cat. 3B	

No data available (g) reproductive toxicity;

No data available (h) STOT-single exposure;

No data available (i) STOT-repeated exposure;

No information available. **Target Organs**

No data available (j) aspiration hazard;

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not

degradable in waste water treatment plants.

Tracinator flori	Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
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Phenol	4-7 mg/L LC50 96 h 32 mg/L LC50 96 h	EC50: 10.2 - 15.5 mg/L, 48h (Daphnia magna)	EC50: 187 - 279 mg/L, 72h static	EC50 21 - 36 mg/L 30 min
	32 mg/L L030 30 m	EC50: 4.24 - 10.7 mg/L,	(Desmodesmus	EC50 = 23.28 mg/L 5
		48h Static (Daphnia	subspicatus)	min
		magna)	EC50: 0.0188 - 0.1044	EC50 = 25.61 mg/L 15
			mg/L, 96h static	min
			(Pseudokirchneriella	EC50 = 28.8 mg/L 5 min
			subcapitata)	EC50 = 31.6 mg/L 15
			EC50: = 46.42 mg/L,	min
			96h	
			(Pseudokirchneriella	
			` subcapitata)	

12.2. Persistence and degradability No information available

12.3. Bioaccumulative potential No information available

Component	log Pow	Bioconcentration factor (BCF)
Phenol	1.5	No data available

No information available 12.4. Mobility in soil

12.5. Results of PBT and vPvB

assessment

No data available for assessment.

12.6. Other adverse effects

Endocrine Disruptor Information Persistent Organic Pollutant

Ozone Depletion Potential

This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused

Products

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to

ensure complete and accurate classification.

Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use **Contaminated Packaging**

empty containers.

According to the European Waste Catalogue, Waste Codes are not product specific, but **European Waste Catalogue (EWC)**

application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product

was used.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

UN2821 14.1. UN number

PHENOL SOLUTION 14.2. UN proper shipping name

14.3. Transport hazard class(es) 6.1 14.4. Packing group П

ADR

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14.1. UN number UN2821

14.2. UN proper shipping name PHENOL SOLUTION

14.3. Transport hazard class(es) 6.1 14.4. Packing group II

IATA

14.1. UN number UN2821

14.2. UN proper shipping name PHENOL SOLUTION

14.3. Transport hazard class(es) 6. 14.4. Packing group

14.5. Environmental hazardsNo hazards identified

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Not applicable, packaged goods

Annex II of MARPOL73/78 and the

IBC Code

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories X = listed.

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Phenol	203-632-7	-		Х	Х	-	Х	Х	Х	Х	Х
Water	231-791-2	-		Х	Х	-	Х	-	Х	Х	Х

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Phenol	WGK 2	Class I: 20 mg/m³ (Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)
Phenol	Tableaux des maladies professionnelles (TMP) - RG 14

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H331 - Toxic if inhaled

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H341 - Suspected of causing genetic defects

H373 - May cause damage to organs through prolonged or repeated exposure

Legend

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CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

ICAO/IATA - International Civil Aviation Organization/International Air

MARPOL - International Convention for the Prevention of Pollution from

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

IARC - International Agency for Research on Cancer

NZIoC - New Zealand Inventory of Chemicals

PNEC - Predicted No Effect Concentration

vPvB - very Persistent, very Bioaccumulative

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water

LD50 - Lethal Dose 50%

Transport Association

ATE - Acute Toxicity Estimate

VOC - Volatile Organic Compounds

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EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit TWA - Time Weighted Average

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Ships

Prepared By Health, Safety and Environmental Department

Creation Date 29-Aug-2018 29-Aug-2018 **Revision Date** Initial Release. **Revision Summary**

Disclaimer

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

End of Safety Data Sheet