# Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Product name : TOPCLIN Des

Product code : 118592E

Use of the : Biocide

Substance/Mixture

Substance type: : Mixture

Product dilution information : No dilution information provided.

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

Identified uses : Surface disinfectant. Spray and rinse manual process

Kitchen cleaner. Spray and wipe manual process

Recommended restrictions

on use

: Reserved for industrial and professional use.

# 1.3 Details of the supplier of the safety data sheet

Company : Ecolab Ltd.

PO Box 11; Winnington Avenue

Northwich, Cheshire, United Kingdom CW8 4DX

+ 44 (0)1606 74488 ccs@ecolab.com

## 1.4 Emergency telephone number

Emergency telephone : +441618841235

number +32-(0)3-575-5555 Trans-European

Date of Compilation/Revision : 16.03.2022 version : 1.3

## **Section: 2. HAZARDS IDENTIFICATION**

## 2.1 Classification of the substance or mixture

## Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1 H314
Serious eye damage, Category 1 H318
Acute aquatic toxicity, Category 1 H400
Chronic aquatic toxicity, Category 2 H411

## 2.2 Label elements

## Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms





Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Corrosive to the respiratory tract.

Supplemental Hazard

Statements

Precautionary Statements : **Prevention:** P261 Avoid breathing spray.

: EUH071

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face

protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately

all contaminated clothing. Rinse skin with water

or 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/doctor.

Hazardous components which must be listed on the label: benzalkonium chloride

# 2.3 Other hazards

None known.

# Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

#### **Hazardous components**

Chemical Name	CAS-No. EC-No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
	REACH No.	REGULATION (EC) NO 1272/2008	. [70]
benzalkonium chloride	68424-85-1 270-325-2 01-2119965180-41	Acute toxicity Category 4; H302 Skin corrosion Category 1B; H314 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410 $M = 10$ $M(Chronic) = 1$	>= 5 - < 10
Alcohols, C13, branched, ethoxylated	69011-36-5 POLYMER	Acute toxicity Category 4; H302 Serious eye damage Category 1; H318	>= 1 - < 2.5
Didecyl Dimethyl Ammonium Chloride	7173-51-5 230-525-2 01-2119945987-15	Acute toxicity Category 4; H302 Skin corrosion Sub-category 1B; H314 Serious eye damage Category 1; H318 Acute toxicity Category 2; H330	>= 0.5 - < 1

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		Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 2; H411 M = 10	
Substances with a workp	lace exposure limit :		
Ethylene Glycol	107-21-1 203-473-3 01-2119456816-28	Acute toxicity Category 4; H302 Specific target organ toxicity - repeated exposure Category 2; H373	>= 0.25 - < 0.5
sodium hydroxide	1310-73-2 215-185-5 01-2119457892-27	Skin corrosion Category 1A; H314 Corrosive to metals Category 1; H290  Skin corrosion Category 1A  H314 >= 5 %  Skin corrosion Category 1B  H314 2 - < 5 %  Skin irritation Category 2  H315 0.5 - < 2 %  Eye irritation Category 2  H319 0.5 - < 2 %	>= 0.1 - < 0.25

For the full text of the H-Statements mentioned in this Section, see Section 16.

## **Section: 4. FIRST AID MEASURES**

## 4.1 Description of first aid measures

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for

at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.

Wash clothing before reuse. Thoroughly clean shoes before

reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give

anything by mouth to an unconscious person. If conscious, give 2

glasses of water. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention

if symptoms occur.

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

See Section 11 for more detailed information on health effects and symptoms.

## 4.3 Indication of immediate medical attention and special treatment needed

Treatment : 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.

Unsuitable extinguishing

media

: None known.

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## 5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Not flammable or combustible.

Hazardous combustion

products

: Depending on combustion properties, decomposition products

may include following materials:

Carbon oxides

Nitrogen oxides (NOx) Hydrogen chloride Metal oxides

## 5.3 Advice for firefighters

for firefighters

Special protective equipment : Use personal protective equipment.

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. In the event of fire and/or

explosion do not breathe fumes.

# Section: 6. ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency

personnel

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to

protective measures listed in sections 7 and 8.

Advice 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.

## 6.2 Environmental precautions

**Environmental precautions** : Do not allow contact with soil, surface or ground water.

## 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with

> non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a

waterway.

## 6.4 Reference to other sections

See Section 1 for emergency contact information.

For personal protection see section 8.

See Section 13 for additional waste treatment information.

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# Section: 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Use only

with adequate ventilation. Wash hands thoroughly after handling. Do not breathe spray, vapour. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal

Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use.

Wash face, hands and any exposed skin thoroughly after

handling. Provide suitable facilities for quick drenching or flushing

of the eyes and body in case of contact or splash hazard.

# 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep out of reach of children. Keep container tightly closed. Store

in suitable labeled containers.

Storage temperature : -5 °C to 40 °C

## 7.3 Specific end uses

Specific use(s) : Surface disinfectant. Spray and rinse manual process

Kitchen cleaner. Spray and wipe manual process

# Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control parameters

# **Occupational Exposure Limits**

Components	CAS-No.		Value type (Form of exposure)	Control parameters	Basis
Ethylene Glycol	107-21	-1	TWA (Vapour.)	20 ppm 52 mg/m3	UKCOSSTD
Further information			e absorbed through the skin. The assigned substances are those for there are concerns that dermal absorption will lead to systemic toxicity.		
			STEL (Vapour.)	40 ppm 104 mg/m3	UKCOSSTD
Further information	Sk	Sk Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
			TWA (particles)	10 mg/m3	UKCOSSTD
Further information	Sk	Sk Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
sodium hydroxide	1310-73-2		STEL	2 mg/m3	UKCOSSTD

## **DNEL**

Ethylene Glycol	: End Use: Workers Exposure routes: Skin contact Potential health effects: Long-term systemic effects Value: 106 mg/cm2
	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 35 mg/m3

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		End Use: Consumers Exposure routes: Skin contact Potential health effects: Long-term systemic effects Value: 53 mg/cm2  End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 7 mg/m3
sodium hydroxide	-	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3  End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3

# **PNEC**

Ethylene Glycol	: Fresh water Value: 10 mg/l
	Marine water Value: 1 mg/l
	Water Value: 10 mg/l
	Fresh water sediment Value: 20.9 mg/kg
	Water Value: 1995.5 mg/l
	Soil Value: 1.53 mg/kg

# 8.2 Exposure controls

## **Appropriate engineering controls**

Engineering measures : Effective exhaust ventilation system Maintain air concentrations

below occupational exposure standards.

# Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use.

Wash face, hands and any exposed skin thoroughly after

handling. Provide suitable facilities for quick drenching or flushing

of the eyes and body in case of contact or splash hazard.

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Eye/face protection (EN 166) : Safety goggles

Face-shield

Hand protection (EN 374) : Recommended preventive skin protection

Gloves Nitrile rubber butyl-rubber

Breakthrough time: 1 – 4 hours

Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4

mm or equivalent (please refer to the gloves

manufacturer/distributor for advise).

Gloves should be discarded and replaced if there is any indication

of degradation or chemical breakthrough.

Skin and body protection

(EN 14605)

: Personal protective equipment comprising: suitable protective

gloves, safety goggles and protective clothing including

appropriate safety shoes

Respiratory protection (EN

143, 14387)

: When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:A-P

## **Environmental exposure controls**

General advice : Consider the provision of containment around storage vessels.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : clear, light yellow

Odour : slight

pH : 11.9 - 12.9, 100 %

Flash point : closed cupNot applicable

Odour Threshold : Not applicable and/or not determined for the mixture Melting point/freezing point : Not applicable and/or not determined for the mixture

Initial boiling point and

boiling range

: Not applicable and/or not determined for the mixture

Evaporation rate : Not applicable and/or not determined for the mixture

Flammability (solid, gas) : Not applicable and/or not determined for the mixture

Upper explosion limit : Not applicable and/or not determined for the mixture

Lower explosion limit : Not applicable and/or not determined for the mixture

Vapour pressure : Not applicable and/or not determined for the mixture Relative vapour density : Not applicable and/or not determined for the mixture

Relative density : 1.046 - 1.056

Water solubility : soluble

Solubility in other solvents : Not applicable and/or not determined for the mixture

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Partition coefficient: n-

Thermal decomposition

octanol/water

: Not applicable and/or not determined for the mixture

Auto-ignition temperature : Not applicable and/or not determined for the mixture

: Not applicable and/or not determined for the mixture

Viscosity, kinematic : Not applicable and/or not determined for the mixture

: Not applicable and/or not determined for the mixture Explosive properties

Oxidizing properties : The substance or mixture is not classified as oxidizing.

## 9.2 Other information

Not applicable and/or not determined for the mixture

## Section: 10. STABILITY AND REACTIVITY

## 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

## 10.2 Chemical stability

Stable under normal conditions.

## 10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

## 10.4 Conditions to avoid

None known.

#### 10.5 Incompatible materials

Acids

## 10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:

Carbon oxides

Nitrogen oxides (NOx)

Hydrogen chloride

Metal oxides

## Section: 11. TOXICOLOGICAL INFORMATION

# 11.1 Information on toxicological effects

Information on likely routes of : Inhalation, Eye contact, Skin contact

exposure

**Product** 

: Acute toxicity estimate : > 2,000 mg/kg Acute oral toxicity

Acute inhalation toxicity : 4 h Acute toxicity estimate : > 5 mg/l

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Test atmosphere: dust/mist

Acute dermal toxicity : There is no data available for this product.

Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye

irritation

: There is no data available for this product.

Respiratory or skin

sensitization

: There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

Components

Acute oral toxicity : benzalkonium chloride LD50 rat: 344 mg/kg

Alcohols, C13, branched, ethoxylated LD50 rat: > 500 mg/kg

Didecyl Dimethyl Ammonium Chloride LD50 rat: 329 mg/kg

Components

Acute inhalation toxicity : Didecyl Dimethyl Ammonium Chloride 4 h LC50 rat: 0.07 mg/l

Test atmosphere: dust/mist

Components

Acute dermal toxicity : benzalkonium chloride LD50 rabbit: 3,340 mg/kg

Didecyl Dimethyl Ammonium Chloride LD50 rabbit: 2,930 mg/kg

Ethylene Glycol LD50 rabbit: 10,600 mg/kg

**Potential Health Effects** 

Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

**Experience with human exposure** 

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Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

# **Section: 12. ECOLOGICAL INFORMATION**

## 12.1 Toxicity

**Environmental Effects** : Very toxic to aquatic life. Toxic to aquatic life with long lasting

effects.

**Product** 

Toxicity to fish : No data available Toxicity to daphnia and other : No data available

aquatic invertebrates

: No data available Toxicity to algae

Components

: Alcohols, C13, branched, ethoxylated96 h LC50 Fish: 3 mg/l Toxicity to fish

Didecyl Dimethyl Ammonium Chloride96 h LC50 Fish: > 1 mg/l

Ethylene Glycol96 h LC50: 72,860 mg/l

Components

aquatic invertebrates

Toxicity to daphnia and other : benzalkonium chloride48 h EC50 Daphnia magna (Water flea):

0.016 mg/l

Alcohols, C13, branched, ethoxylated48 h EC50 Daphnia magna

(Water flea): 1.5 mg/l

Didecyl Dimethyl Ammonium Chloride48 h EC50 Daphnia magna

(Water flea): 0.029 mg/l

Ethylene Glycol48 h EC50: > 100 mg/l

sodium hydroxide48 h EC50: 40 mg/l

Components

Toxicity to algae : Didecyl Dimethyl Ammonium Chloride72 h EC50

Pseudokirchneriella subcapitata (algae): 0.062 mg/l

Ethylene Glycol96 h EC50: 6,500 mg/l

## 12.2 Persistence and degradability

**Product** 

Biodegradability : The surfactants contained in the product are biodegradable

according to the requirements of the detergent regulation

648/2004/EC

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## Components

Biodegradability : benzalkonium chlorideResult: Biodegradable

Alcohols, C13, branched, ethoxylatedResult: Biodegradable

Didecyl Dimethyl Ammonium ChlorideResult: Biodegradable

Ethylene GlycolResult: Readily biodegradable.

sodium hydroxideResult: Not applicable - inorganic

## 12.3 Bioaccumulative potential

No data available

# 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

#### **Product**

Assessment : This substance/mixture contains no components considered to be

either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

higher.

## 12.6 Other adverse effects

No data available

## **Section: 13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

# 13.1 Waste treatment methods

Product : Do not contaminate storm water drains, natural waterways or soil

with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations

Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product. Empty containers should be taken

to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local,

state, and federal regulations.

Guidance for Waste Code

selection

: Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It

is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in

compliance with applicable European (EU Directive 2008/98/EC)

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and local regulations.

# **Section: 14. TRANSPORT INFORMATION**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number : 1760

14.2 UN proper shipping : CORROSIVE LIQUID, N.O.S.

name

(quaternary ammonium compound)

14.3 Transport hazard : 8

class(es)

14.4 Packing group : III 14.5 Environmental hazards : Yes

14.6 Special precautions for : None

user

Air transport (IATA)

14.1 UN number : 1760

14.2 UN proper shipping : Corrosive liquid, n.o.s.

name

(quaternary ammonium compound)

14.3 Transport hazard : 8

class(es)

14.4 Packing group : III 14.5 Environmental hazards : Yes

14.6 Special precautions for

: None

user

Sea transport (IMDG/IMO)

14.1 UN number : 1760

14.2 UN proper shipping : CORROSIVE LIQUID, N.O.S.

name

(quaternary ammonium compound)

14.3 Transport hazard : 8

class(es)

14.4 Packing group : III 14.5 Environmental hazards : Yes

14.6 Special precautions for : None

user

14.7 Transport in bulk : Not applicable

according to Annex II of MARPOL 73/78 and the IBC

Code

# **Section: 15. REGULATORY INFORMATION**

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

according to Detergents : 5 % or over but less than 15 %: Cationic surfactants

Regulation EC 648/2004 less than 5 %: Non-ionic surfactants Contains: Disinfectants

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Seveso III: Directive : ENVIRONMENTAL HAZARDS E1 2012/18/EU of the European Lower tier : 100 t

Parliament and of the Council on the control of majoraccident hazards involving dangerous substances.

Lower tier : 100 t Upper tier : 200 t

## **National Regulations**

## Take note of Dir 94/33/EC on the protection of young people at work.

Other regulations : The Chemicals (Hazard Information and Packaging for Supply)

Regulations.

The Control of Substances Hazardous to Health Regulations.

Health and Safety at Work Act.

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product.

# **Section: 16. OTHER INFORMATION**

## Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Skin corrosion 1, H314	Based on product data or assessment
Serious eye damage 1, H318	Based on product data or assessment
Acute aquatic toxicity 1, H400	Calculation method
Chronic aquatic toxicity 2, H411	Calculation method

#### **Full text of H-Statements**

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

## Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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 -

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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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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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