

# SAFETY DATA SHEET

according to Regulation (EC) No. 830/2015

## HYDROFAN OXIDE RED

Version 2.27

Revision Date 28.04.2020

Print Date 05.05.2020

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : HYDROFAN OXIDE RED  
Product code : LNHF0038

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

Use of the Substance/Mixture : Paints, varnishes and enamels  
Chemical nature : Mono compound enamel - finish coat

#### 1.3 Details of the supplier of the safety data sheet

Company : Lechler SpA  
Via Cecilio 17  
22100 Como- CO-  
Telephone : +39031586111  
Telefax : +39031586206  
E-mail address : safety@lechler.eu  
Responsible/issuing person

#### 1.4 Emergency telephone number

Tel. +39-031-586301 - This telephone number is available during office hours only. (8.00-18.00)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.  
Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

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

Hazard pictograms :



Signal word : Warning

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Hazard statements	: H317 H412	May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.
Precautionary statements	: <b>Prevention:</b> P261  P273 P280 <b>Response:</b> P333 + P313  P362 + P364  <b>Disposal:</b> P501	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Avoid release to the environment. Wear protective gloves.  If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse.  Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 2682-20-4 2-methylisothiazol-3(2H)-one
- 55965-84-9 reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

### 2.3 Other hazards

None known.

The information required is contained in this Material Safety Data Sheet.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Water pigmented dispersion

#### Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
2-butoxyethanol	111-76-2 203-905-0 01-2119475108-36	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 10
2,5-Furandione, telomer with ethenylbenzene and (1- methylethyl)benzene,	1431957-88-8	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,25 - < 1

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3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C10-16-alkyloxy)methyl]oxirane -quaternized, benzoates (salts)			
N-methyl-2-pyrrolidone	872-50-4 212-828-1 01-2119472430-46	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 1B; H360D STOT SE 3; H335 ***	>= 0,1 - < 0,3
2-dimethylaminoethanol	108-01-0 203-542-8 01-2119492298-24	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 3; H331 Acute Tox. 4; H312 Skin Corr. 1B; H314 STOT SE 3; H335	>= 0,1 - < 1
2-methylisothiazol-3(2H)-one	2682-20-4 220-239-6	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 (Acute M=10) (Chronic M=1)	>= 0,0025 - < 0,025
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 (Acute M=100) (Chronic M=100)	<= 0,0002
Substances with a workplace exposure limit :			
diiron trioxide	1309-37-1 215-168-2 01-2119457614-35		>= 10 - < 20

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

General advice : When symptoms persist or in all cases of doubt seek medical

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- advice.  
Never give anything by mouth to an unconscious person.
- If inhaled : Remove to fresh air.  
Keep patient warm and at rest.  
If breathing is irregular or stopped, administer artificial respiration.  
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Do NOT use solvents or thinners.  
Put shower on working place
- In case of eye contact : Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.  
Seek medical advice.  
Put eye-washer on working place  
Remove contact lenses.
- If swallowed : If accidentally swallowed obtain immediate medical attention.  
Do NOT induce vomiting.  
Keep at rest.

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

- Symptoms : No information available.
- Risks : No information available.

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

- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.  
Seek medical advice.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Keep containers and surroundings cool with water spray.
- Unsuitable extinguishing media : Do NOT use water jet.

### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).  
Exposure to decomposition products may be a hazard to

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health.

Cool closed containers exposed to fire with water spray.

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.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Ventilate the area.  
Refer to protective measures listed in sections 7 and 8.  
Material can create slippery conditions.

### 6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Clean with detergents. Avoid solvents.  
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).

### 6.4 Reference to other sections

Refer to section 15 for specific national regulation.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).  
Use only in area provided with appropriate exhaust ventilation.  
Avoid contact with skin, eyes and clothing.  
Smoking, eating and drinking should be prohibited in the application area.  
Avoid inhalation of vapour or mist.  
For personal protection see section 8.  
Thoroughly mix before using  
After using, store in a well-sealed container

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### 7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Observe label precautions.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store in accordance with the particular national regulations.  
Store between 5° an 35°C in a dry, well ventilated place away from source of heat, ignition and direct sunlight.  
No smoking.  
Electrical installations / working materials must comply with the technological safety standards.
- Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline materials.
- German storage class : 10 Combustible liquids

### 7.3 Specific end use(s)

: This information is not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
diiron trioxide	1309-37-1	TWA	5 mg/m3	2007-01-01	ACGIH
2-butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m3	2000-06-16	2000/39/EC
Further information	:	skin: Identifies the possibility of significant uptake through the skin	Indicative		
		STEL	50 ppm 246 mg/m3	2000-06-16	2000/39/EC
Further information	:	skin: Identifies the possibility of significant uptake through the skin	Indicative		
1-methyl-2-pyrrolidone	872-50-4	TWA	10 ppm 40 mg/m3	2009-12-19	2009/161/EU
Further information	:	skin: Identifies the possibility of significant uptake through the skin	Indicative		
		STEL	20 ppm 80 mg/m3	2009-12-19	2009/161/EU
Further information	:	skin: Identifies the possibility of significant uptake through the skin	Indicative		

DNEL

N-methyl-2-pyrrolidone : End Use: Workers  
Exposure routes: Dermal  
Potential health effects: Long-term systemic effects

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Value: 4,8 mg/kg

End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 14,4 mg/m<sup>3</sup>

End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term local effects

Value: 40 mg/m<sup>3</sup>

PNEC

N-methyl-2-pyrrolidone

: Fresh water

Value: 0,25 mg/l

Marine water

Value: 0,025 mg/l

Fresh water sediment

Value: 1,42 mg/kg

Marine sediment

Value: 0,142 mg/kg

Soil

Value: 0,138 mg/kg

Sewage treatment plant

Value: 10 mg/kg

## 8.2 Exposure controls

### Personal protective equipment

Respiratory protection

: Apply technical measures to comply with the occupational exposure limits.

This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.

If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.

Respirator with combination filter for vapour/particulate (EN 141)

Hand protection

: Latex gloves

For prolonged or repeated contact use protective gloves. Protective gloves complying with EN 374.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

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If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.

Skin should be washed after contact.

Wash your hands and put on barrier creams

Eye protection : Chemical resistant goggles must be worn.  
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection : Skin should be washed after contact.  
Wear suitable protective clothing.

### Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.  
If the product contaminates rivers and lakes or drains inform respective authorities.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Odour : solvent-like

Flash point : > 63 - 100 °C

Ignition temperature : not determined

Lower explosion limit : No data available

Upper explosion limit : No data available

Auto-ignition temperature : Not applicable

pH : not determined

Freezing point : Not applicable

Boiling point : not determined

Vapour pressure : 1,000 hPa  
at 50 °C

Density : 1,1717 g/cm<sup>3</sup>

Water solubility : not determined



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Partition coefficient: n-octanol/water	:	No data available
Solubility in other solvents	:	not determined
Flow time	:	59 s 6 mm Method: ISO/DIN 2431 '84
Relative vapour density	:	Not applicable
Evaporation rate	:	not determined

### 9.2 Other information

Solids by weight	:	34,02 %
Volatile organic compounds (VOC) content	:	7,5 %
Water content	:	58,46 %

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None reasonably foreseeable.

### 10.2 Chemical stability

The product is chemically stable.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid : Our products were manufactured in compliance with safety standards to avoid decomposition and degrading under the defined conditions.  
Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.

### 10.5 Incompatible materials

Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

Thermal decomposition : Not applicable

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Product

Acute oral toxicity	:	Acute toxicity estimate: > 2.000 mg/kg, Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 20 mg/l, 4 h, vapour, Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 2.000 mg/kg, Calculation method
Skin corrosion/irritation	:	Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin., The product may be absorbed through the skin.
Further information	:	The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

##### Components:

##### **2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, 3-(dimethylamino)propyl imide, imide with polyethylene-polyp :**

Acute oral toxicity : LD50: > 2.000 mg/kg, Rat(female), OECD Test Guideline 420, GLP: yes

##### **N-methyl-2-pyrrolidone :**

Acute oral toxicity : LD50: 4.150 mg/kg, Rat(male and female), OECD Test Guideline 401

Acute inhalation toxicity : LC50: > 5,1 mg/l, 4 h, Rat, OECD Test Guideline 403

Acute dermal toxicity : LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 402

##### **2-dimethylaminoethanol :**

Acute oral toxicity : LD50: 1.183 mg/kg, Rat, OECD Test Guideline 401

Acute inhalation toxicity : LC50: 5,9 mg/l, 4 h, Rat, OECD Test Guideline 403

Acute dermal toxicity : LD50: 1.219 mg/kg, Rabbit, OECD Test Guideline 402

### SECTION 12: Ecological information

#### 12.1 Toxicity

Toxicity to fish :  
Remarks:  
No data is available on the product itself.

Toxicity to fish

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N-methyl-2-pyrrolidone : LC50: > 500 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)

2-methyl-2H-isothiazol-3-one : 10  
5-Chloro-2-methyl-3(2H)isothiazolone mixt. with 2-Methyl-3(2H)isothiazolone : 100  
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)  
N-methyl-2-pyrrolidone : NOEC: 12,5 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

### 12.2 Persistence and degradability

Biodegradability : No data available  
: No data available

### 12.3 Bioaccumulative potential

Bioaccumulation : No data available  
: No data available

### 12.4 Mobility in soil

Mobility : No data available

### 12.5 Results of PBT and vPvB 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

Additional ecological information : The product contains dangerous substances for the environment (see chapter no 3).  
The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

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Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.  
The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.  
The following Waste Codes are only suggestions: 150110\*

### SECTION 14: Transport information

#### 14.1 UN number

Not regulated as a dangerous good

#### 14.2 Proper shipping name

##### ADR

Not dangerous goods

##### IMDG

Not dangerous goods

##### IATA

Not dangerous goods

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

##### ADR

Not dangerous goods

##### IMDG

Not dangerous goods

##### IATA

Not dangerous goods

#### 14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

### SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

872-50-4	N-methyl-2-pyrrolidone
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REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : 3

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Banned and/or restricted

872-50-4	N-methyl-2-pyrrolidone
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Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

MAL-Code-Number : 1-3 (1993)  
197-m3 air/10 g

Storage class (TRGS 510) : 10: Combustible liquids

Risk classification according to VbF : Flash Point > 55 °C up to 100 °C, at 15 °C not miscible with water

Water contaminating class (Germany) : obviously hazardous to water  
Ordinance on facilities for handling substances that are hazardous to water (AwSV)  
Classification according to AwSV, Annex 1 (5.2)

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This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.  
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

### 15.2 Chemical safety assessment

No data is available on the product itself.

## SECTION 16: Other information

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

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### List of references

Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP)

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union L 396 from 30.12.2006, as amended).

Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### Key or legend to abbreviations and acronyms used in the safety data sheet

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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; AICS - Australian Inventory of Chemical Substances; 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 - 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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.