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

1.1 Product identifier

Trade name	:	ACRITOP
Product code	:	L0290155

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	:	Dual compound colourless clearcoat

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)

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
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

Hazard statements :

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

EUH066Repeated exposure may cause skin dryness or cracking.

Precautionary statements :

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ eye protection/ face protection.

Response:

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

- 123-86-4 n-butyl acetate
- 64742-95-6 Hydrocarbons, C9, aromatics
- 1065336-91-5 Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
- 97-88-1 n-butyl methacrylate

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 : Liquid solution

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Hydrocarbons, C9, aromatics	64742-95-6 918-668-5 01-2119455851-35-0006	Flam. Liq. 3; H226 STOT SE 3; H335, H336 Aquatic Chronic 2; H411 Asp. Tox. 1; H304 EUH066 Note P	>= 10 - < 12,5
xylene	1330-20-7 215-535-7 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Note C	>= 5 - < 10
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	1065336-91-5 915-687-0 01-2119491304-40-0000	Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 (Acute M=1) (Chronic M=1)	>= 0,25 - < 1
n-butyl methacrylate	97-88-1 202-615-1 01-2119486394-28	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335 Note D	>= 0,1 - < 1
Substances with a workplace exposure limit :			
n-butyl acetate	123-86-4 204-658-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 12,5 - < 15

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 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 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 : Solvent vapours are heavier than air and may spread along floors.
Ensure adequate ventilation.
Use personal protective equipment.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ventilate the area.

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 and collect spillages with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises water (45 parts by volume)/ethanol or isopropanol (50 parts)/concentrated
(d: 0.880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts)/water (95 parts).

Pick up and transfer to properly labelled containers.
Clean contaminated surface thoroughly.
Dam up.
Soak up with inert absorbent material and dispose of as hazardous waste.

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

Advice on protection against fire and explosion : Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.
When transferring from one container to another apply earthing measures and use conductive hose material.
No sparking tools should be used.
The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
No smoking.

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.
Solvent vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air.
Electrical installations / working materials must comply with the technological safety standards.
Keep away from sources of ignition - No smoking.
Store between 5° an 35°C in a dry, well ventilated place away from source of heat, ignition and direct sunlight.
Store in accordance with the particular national regulations.

Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline materials.

German storage class : 3 Flammable 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
n-butyl acetate	123-86-4	TWA	50 ppm	2016-03-01	ACGIH
		STEL	150 ppm	2016-03-01	ACGIH
xylenes	1330-20-7	TWA	50 ppm 221 mg/m3	2000-06-16	2000/39/EC
Further information	:	skin: Identifies the possibility of significant uptake through the skinIndicative			
		STEL	100 ppm 442 mg/m3	2000-06-16	2000/39/EC
Further information	:	skin: Identifies the possibility of significant uptake through the skinIndicative			

DNEL

Hydrocarbons, C9, aromatics	:	End Use: Consumers Exposure routes: Oral Potential health effects: Long-term systemic effects Value: 11 mg/kg End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 32 mg/m3 End Use: Consumers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 11 mg/kg End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 150 mg/m3 End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 25 mg/kg
xylene	:	End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 65,3 mg/m3 End Use: Consumers Exposure routes: Oral Potential health effects: Long-term systemic effects Value: 12,5 mg/kg End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term local effects Value: 442 mg/kg End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 212 mg/kg End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 221 mg/m3
n-butyl acetate	:	End Use: Consumers Exposure routes: Inhalation

Potential health effects: Long-term local effects
Value: 102,34 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Acute local effects
Value: 859,7 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Acute systemic effects
Value: 859,7 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 102,34 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Acute local effects
Value: 960 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 480 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Acute systemic effects
Value: 960 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 480 mg/m3

PNEC
xylene : Fresh water
Value: 0,32 mg/l

Intermittent use/release
Value: 0,32 mg/l

Marine water
Value: 0,32 mg/l

Fresh water sediment
Value: 12,46 mg/kg

Marine sediment
Value: 12,46 mg/kg

Soil
Value: 2,31 mg/kg

Sewage treatment plant
Value: 6,58 mg/l

n-butyl acetate : Fresh water
Value: 0,18 mg/l

Intermittent use/release
Value: 0,36 mg/l

Marine water
Value: 0,01 mg/l

Fresh water sediment
Value: 0,98 mg/kg

Marine sediment
Value: 0,09 mg/kg

Soil
Value: 0,09 mg/kg

Sewage treatment plant
Value: 35,6 mg/l

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 : Solvent-resistant gloves (butyl-rubber)
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.
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.
Skin and body protection	:	Skin should be washed after contact. Personnel should wear protective clothing. Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.

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	:	> 23 - 55 °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	:	1,0249 g/cm3
Water solubility	:	not determined
Partition coefficient: n-octanol/water	:	No data available
Solubility in other solvents	:	not determined
Flow time	:	70 s

6 mm
Method: ISO/DIN 2431 '84

Relative vapour density	:	Not applicable
Evaporation rate	:	not determined

9.2 Other information

Solids by weight	:	60,18 %
Volatile organic compounds (VOC) content	:	39,81 %

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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.
Thermal decomposition	:	Not applicable

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product

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:

Hydrocarbons, C9, aromatics :

Acute oral toxicity	:	LD50: 3.592 mg/kg, Rat, OECD Test Guideline 401
Acute dermal toxicity	:	LD50: > 3.160 mg/kg, Rabbit, OECD Test Guideline 402

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate :

Acute oral toxicity	:	LD50: 3.230 mg/kg, Rat

n-butyl acetate :

Acute oral toxicity	:	LD50: 10.760 mg/kg, Rat(female), OECD Test Guideline 423
Acute inhalation toxicity	:	LC50: > 23,4 mg/l, 4 h, Rat, OECD Test Guideline 403
Acute dermal toxicity	:	LD50: > 14.000 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 Hydrocarbons, C9, aromatics	:	LC50: 9,2 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	:	LC50: 0,97 mg/l Exposure time: 96 h Species: Lepomis macrochirus (Bluegill sunfish) Method: OECD Test Guideline 203 LC50: 7,9 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout)

Method: OECD Test Guideline 203

LC50: 0,9 mg/l
Exposure time: 96 h

Species: Brachydanio rerio (zebrafish)
semi-static test Method: OECD Test Guideline 203

n-butyl acetate : LC50: 18 mg/l
Exposure time: 96 h

Species: Pimephales promelas (fathead minnow)
Method: OECD Test Guideline 203

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate : NOEC: 1 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

12.3 Bioaccumulative potential

Bioaccumulation : 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.
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

ADR	:	UN 1263
IMDG	:	UN 1263
IATA	:	UN 1263

14.2 Proper shipping name

ADR	PAINT
IMDG	PAINT
IATA	Paint

14.3 Transport hazard class(es)

ADR	:	3
IMDG	:	3
IATA	:	3

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	F1
Hazard Identification Number	:	30
Labels	:	3

IMDG

Packing group	:	III
Labels	:	3
EmS Code	:	F-E,S-E

IATA

Packing group	:	III
Labels	:	3

14.5 Environmental hazards

ADR

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

IATA

Environmentally hazardous	:	no

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

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).	:	Not applicable
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

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	:	2-3 (1993) 662-m3 air/10 g
Storage class (TRGS 510)	:	3: Flammable liquids
Risk classification according to VbF	:	Exempt see user defined free text
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)

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.

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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.
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
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.