

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

<b>Trade name</b>	<b>MARLIPAL 24/30</b>
<b>INCI</b>	Laureth-3
<b>Substance name (REACH / CLP)</b>	Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)

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

<b>Use</b>	Industrial use raw material for cosmetic agents raw material for washing and cleaning agents emulsifying agent surface-active substance
<b>Uses advised against</b>	

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

<b>Company</b>	SASOL Germany GmbH Anckelmannsplatz 1 20537 Hamburg
	Telephone: +49 40 63684-1000 Telefax: +49 40 63684-3700
<b>Information (Product safety):</b>	Telephone: + 49 (0) 23 65 - 49 47 05 Telefax: + 49 (0) 23 65 - 49 92 40
<b>E-mail address</b>	msds-info.germany@de.sasol.com

**1.4 Emergency telephone number**

<b>Emergency telephone number</b>	+ 49 (0) 23 65 - 49 22 32
-----------------------------------	---------------------------

**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Short-term (acute) aquatic hazard Category 1	Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 3	Harmful to aquatic life with long lasting effects.
Eye irritation Category 2	Causes serious eye irritation.

**2.2 Label elements****Labelling (REGULATION (EC) No 1272/2008)****Hazard pictograms**

## MARLIPAL 24/30

Version: 11.02

Revision Date 2019/03/26

<b>Signal word</b>	Warning
<b>Hazard statements</b>	
H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.
<b>Precautionary statements</b>	
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P391	Collect spillage.
P501	Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other hazards

Danger of slipping after spill or leakage.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance in the meaning of regulation (EC) 1907/2006.

### COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

#### Alcohols, C12-14, ethoxylated (>=2.5 EO)

**content:** >= 90 - <= 100 % **component type:** Active ingredient

**EC-No.:** 932-106-6

**Index-No.:**

**CAS-No.:** 68439-50-9

**REACH No.:** Not relevant (polymer)

**Substance name (REACH / CLP):** Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)

**Classification (Regulation** Aquatic Acute 1 H400

**(EC) No 1272/2008):** Aquatic Chronic 3 H412

Eye Irrit. 2 H319

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

<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.
<b>If inhaled</b>	Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.
<b>In case of skin contact</b>	Wash off immediately with plenty of water. Consult a physician if necessary.
<b>In case of eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

**If swallowed** physician.  
Consult a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

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

**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**

**Indication of any immediate medical attention and special treatment needed** Treatment: No information available.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

**Suitable extinguishing media** Water spray, Dry powder, Foam, Carbon dioxide (CO2)

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

**Specific hazards during firefighting** Dangerous gases or fumes may occur in case of fire.

**5.3 Advice for firefighters**

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

**Further information** Standard procedure for chemical fires.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment.

**6.2 Environmental precautions**

**Environmental precautions** Avoid subsoil penetration.  
Do not flush into surface water or sanitary sewer system.

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

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The material taken up must be disposed of in accordance with regulations.

**6.4 Reference to other sections**

For personal protection see section 8.

**SECTION 7: HANDLING AND STORAGE**

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

**7.1 Precautions for safe handling**

<b>Advice on safe handling</b>	Wear personal protective equipment. Avoid contact with skin and eyes.
<b>Advice on protection against fire and explosion</b>	Normal measures for preventive fire protection. Do not spray on a naked flame or any incandescent material.
<b>Fire-fighting class</b>	B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

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

<b>Requirements for storage areas and containers</b>	Keep tightly closed in a dry and cool place.
<b>Storage class (TRGS 510)</b>	10: Combustible liquids not in Storage Class 3
<b>Other data</b>	Stable at normal ambient temperature and pressure.

**7.3 Specific end use(s)**

<b>Specific use(s)</b>	This information is not available.
------------------------	------------------------------------

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS****National occupational exposure limits**

No data available

**EUROPEAN OCCUPATIONAL EXPOSURE LIMITS**

No data available

**DERIVED NO EFFECT LEVEL (DNEL)****Substance name: Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)**

No data available

**PREDICTED NO EFFECT CONCENTRATION (PNEC)****Substance name: Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)**

No data available

**8.2 Exposure controls****PERSONAL PROTECTIVE EQUIPMENT**

<b>Respiratory protection</b>	No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate
-------------------------------	---

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

**Hand protection**

combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., 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., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

**gloves suitable for permanent contact:**

Material: butyl-rubber  
Break through time: >= 480 min  
Layer thickness: >= 0.7 mm

**gloves suitable for splash protection:**

Material: Nitrile rubber/nitrile latex  
Break through time: >= 30 min  
Layer thickness: >= 0.4 mm

**Eye protection**

Tightly fitting safety goggles, Safety glasses with side-shields

**Skin and body protection**

Wear suitable protective equipment.

**Hygiene measures**

Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke.

**Protective measures**

Avoid contact with the skin and the eyes. Wear suitable gloves and eye/face protection.

**ENVIRONMENTAL EXPOSURE CONTROLS****General advice**

Avoid subsoil penetration.  
Do not flush into surface water or sanitary sewer system.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	liquid; 20 °C; 1,013 hPa
<b>Form</b>	liquid
<b>Colour</b>	colourless
<b>Odour</b>	mild
<b>Odour Threshold</b>	No valid method available
<b>pH</b>	5 - 7; 20 g/l; 20 °C
<b>Melting point/range</b>	ca. 5 °C
<b>Boiling point/boiling range</b>	Not applicable
<b>Flash point</b>	179 °C; DIN 51376

## MARLIPAL 24/30

Version: 11.02

Revision Date 2019/03/26

Evaporation rate	No data available
Flammability (solid, gas)	not applicable (liquid)
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	< 0.1 hPa; 20 °C
Relative vapour density	> 1
Density	ca.0.9 g/cm <sup>3</sup> ; 50 °C
Water solubility	20 °C; completely miscible
Partition coefficient: n-octanol/water	Not relevant / not applicable Justification: surface-active substance
Ignition temperature	ca. 230 °C; DIN 51794
Auto-ignition temperature	not auto-flammable
Viscosity, dynamic	No data available
Explosive properties	not expected based on structure and functional groups
Oxidizing properties	not expected based on structure and functional groups

### 9.2 Other data

Additional advice	no data
-------------------	---------

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Note	Stable at normal ambient temperature and pressure.
------	--

### 10.2 Chemical stability

Note	No decomposition if stored and applied as directed.
------	---

### 10.3 Possibility of hazardous reactions

Hazardous reactions	None known.
---------------------	-------------

### 10.4 Conditions to avoid

Conditions to avoid	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.
---------------------	---

### 10.5 Incompatible materials to avoid

Materials to avoid	Strong acids and oxidizing agents;
--------------------	------------------------------------

### 10.6 Hazardous decomposition products

Hazardous decomposition products	No decomposition if stored and applied as directed.
Thermal decomposition	Hazardous decomposition products formed under fire conditions.

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute toxicity**

<b>Acute oral toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): LD50 Rat: > 2,000 mg/kg own test results/literature values Category approach Based on available data, the classification criteria are not met.
<b>Acute inhalation toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): No data available
<b>Acute dermal toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): LD50 Rabbit: > 2,000 mg/kg; Category approach (literature value) Based on available data, the classification criteria are not met.

**Skin corrosion/irritation**

<b>Skin irritation</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Rabbit: not irritating own test results/literature values Category approach Based on available data, the classification criteria are not met.
------------------------	---

**Serious eye damage/eye irritation**

<b>Eye irritation</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Rabbit: Irritation to eyes, reversing within 7 days Category approach own test results/literature values Causes serious eye irritation.
-----------------------	---

**Respiratory or skin sensitisation**

<b>Sensitisation</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Maximisation Test Guinea pig: not sensitizing Category approach (literature value) Based on available data, the classification criteria are not met.
----------------------	--

**Germ cell mutagenicity**

<b>Genotoxicity in vitro</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): In vitro tests did not show mutagenic effects Category approach own test results/literature values
<b>Genotoxicity in vivo</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): In vivo tests did not show mutagenic effects Category approach (literature value)
<b>Remarks</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Based on available data, the classification criteria are not met.

**Carcinogenicity**

<b>Carcinogenicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential. Category approach (literature value)
------------------------	--

## MARLIPAL 24/30

Version: 11.02

Revision Date 2019/03/26

<b>Remarks</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	
<b>Reproductive toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): No toxicity to reproduction Category approach (literature value)
<b>RemarksReproductive toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Based on available data, the classification criteria are not met.
<b>Teratogenicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Did not show teratogenic effects in animal experiments. Category approach (literature value)
<b>Remarks-Teratogenicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Based on available data, the classification criteria are not met.
<b>STOT - single exposure</b>	
<b>Remarks</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): The substance or mixture is not classified as specific target organ toxicant, single exposure.
<b>STOT - repeated exposure</b>	
<b>Remarks</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
<b>Repeated dose toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Rat; Oral; 2 years NOAEL: 50 mg/kg (based on body weight and day) Target Organs: Heart, Liver, Kidney Symptoms: reduced body weight gain, increased relative organ weights Category approach (literature value)
<b>Aspiration hazard</b>	
<b>Aspiration toxicity</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Not applicable
<b>Toxicological information</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Toxicokinetics Category approach The substance is expected to be rapidly absorbed and excreted. (literature value)

## SECTION 12: ECOLOGICAL INFORMATION

## 12.1 Toxicity

<b>Toxicity to fish</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): LC50 (96 h) Brachydanio rerio (zebrafish): $> 0.1 - 1$ mg/l ; semi-static test own test results/literature values Category approach
<b>Toxicity to daphnia and other</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): EC50 (48 h) Daphnia magna (Water flea): $> 0.1 - 1$ mg/l ; static test; own test



**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

<b>aquatic invertebrates</b>	results/literature values Category approach
<b>Toxicity to aquatic plants</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): EC50 (72 h) <i>Desmodesmus subspicatus</i> (green algae): > 0.1 - 1 mg/l ; static test; own test results/literature values; Category approach  Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): EC10 (72 h) <i>Desmodesmus subspicatus</i> (green algae): 0.1 - 1 mg/l ; static test; own test results/literature values; Category approach
<b>Toxicity to bacteria</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): EC50 activated sludge: 140 mg/l; Respiration inhibition Category approach (literature value)
<b>Toxicity to terrestrial flora</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): emergence, growth; NOEC: 10 mg/kg; <i>Lepidium sativum</i> (cress); OECD Test Guideline 208 own test results/literature values Category approach
<b>Toxicity for other terrestrial non-mammalian fauna</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): No data available
<b>12.2 Persistence and degradability</b>	
<b>Biodegradability</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301B own test results/literature values Category approach
<b>12.3 Bioaccumulative potential</b>	
<b>Bioaccumulation</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Bioaccumulation is unlikely. (literature value)
<b>12.4 Mobility in soil</b>	
<b>Mobility</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Moderately mobile in soils
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>Results of PBT assessment</b>	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.
<b>Results of PBT assessment</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). Category approach
<b>12.6 Other adverse effects</b>	
<b>General advice</b>	Alcohols, C12-14, ethoxylated ( $\geq 2.5$ EO): Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**



**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

<b>Product</b>	Can be incinerated, when in compliance with local regulations.
<b>waste code of the European Union: EWC</b>	A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose. The waste code must be determined in agreement with the regional waste disposal authority or company.

**SECTION 14: TRANSPORT INFORMATION**

**14.1 UN number**

ADR	3082
RID	3082
ADN	3082
IMDG	3082
ICAO/IATA	3082

**14.2 Proper shipping name**

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty alcohol polyethoxylated)

**14.3 Transport hazard class**

ADR	9
RID	9
ADN	9
IMDG	9
ICAO/IATA	9

**14.4 Packing group**

ADR	III
RID	III
ADN	III
IMDG	III
ICAO/IATA	III

**14.5 Environmental hazards**

ADR	Environmentally hazardous	yes
RID	Environmentally hazardous	yes
ADN	Environmentally hazardous	yes
IMDG	Marine pollutant	yes
ICAO/IATA	Environmentally hazardous	yes

**14.6 Special precautions for user**

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

<b>ADR</b>	Hazard Identification Number	90
	Labels	9
	Tunnel restriction code	(-)
<b>IMDG</b>	Labels	9
	EmS Number 1	F-A
	EmS Number 2	S-F
<b>ICAO/IATA</b>	Labels	9MI

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

Remarks No information available.

**SECTION 15: REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Occupational restrictions** Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.

**NATIONAL/OTHER REGULATIONS**

**Legislation on the control of major-accident hazards involving dangerous substances** Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
list entry in the directive:: ENVIRONMENTAL HAZARDS; E1

Qualifying quantity 1: 100 t; Qualifying quantity 2: 200 t;

**Other regulations** This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

**MARLIPAL 24/30**

Version: 11.02

Revision Date 2019/03/26

**NOTIFICATION STATUS**

Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances (IECSC)	INV (CN)	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

**15.2 Chemical safety assessment****Alcohols, C12-14 (even numbered), ethoxylated (CAS: 68439-50-9)**

A Chemical Safety Assessment is not required for this substance (exempted from obligation to register).

**SECTION 16: OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

**Safety datasheet sections which have been updated:**

14. Transport information

**Further information:**

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.  
This safety datasheet only contains information relating to safety and does not

## MARLIPAL 24/30

Version: 11.02

Revision Date 2019/03/26

replace any product information or product specification.

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

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC...	Effect concentration ... %
ENCs	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUAPC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC...	Lethal Concentration, ...%
LD...	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse