

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

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

#### 1.1 Product identifier

Trade name : BYK-017

UFI : UJED-D0GA-D00C-TXAD

Product code : 00000000000107632

This substance/ mixture contains nanoforms (according to REACH Regulation)

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

Use of the Substance/Mixture : Defoamer

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

Company : BYK-Chemie GmbH  
Abelstrasse 45  
46483 Wesel  
Telephone : +49 281 670-0  
Telefax : +49 281 65735

Information : Regulatory Affairs  
Telephone : +49 281 670-23532  
Telefax : +49 281 670-23533  
E-mail address : GHS.BYK@altana.com

#### 1.4 Emergency telephone number

+44 1235 239670

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.
Persistent, bioaccumulative and toxic	EUH440: Accumulates in the environment and living organisms including in humans.
Very persistent and very bioaccumulative	EUH441: Strongly accumulates in the environment and living organisms including in humans.

#### 2.2 Label elements

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



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

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	208-764-9	vPvB; EUH441	
octamethylcyclotetrasiloxane [D4]	556-67-2 209-136-7 01-2119529238-36	Repr. 2; H361f Aquatic Chronic 1; H410 PBT; EUH440 vPvB; EUH441 Flam. Liq. 3; H226 <hr/> M-Factor (Chronic aquatic toxicity): 10	$\geq 0,25 - < 0,5$
dodecamethylcyclohexasiloxane	540-97-6 208-762-8	PBT; EUH440 vPvB; EUH441	$\geq 0,1 - < 0,25$

For explanation of abbreviations see section 16.

This substance/ mixture contains nanoforms (according to REACH Regulation)

### Components:

#### **Silicon dioxide:**

#### Particle characteristics

- Assessment : This substance/ mixture contains nanoforms (according to REACH Regulation)
- Shape : Shape: spheres
- Crystallinity : Crystallinity: amorphous
- Surface treatment /Coatings : Surface treatment /Coatings: yes  
Properties of Coated Particle: hydrophobic

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

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Print Date: 31.03.2026

---

Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

Symptoms : No information available.

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

Treatment : No information available.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides  
silicone compounds

### 5.3 Advice for firefighters

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

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.

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## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.

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# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

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Print Date: 31.03.2026

### 6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.

Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday.

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

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : No data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006**

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according to Regulation (EC) No. 1907/2006, as amended by  
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## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

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Substance name	End Use	Exposure routes	Potential health effects	Value
octamethylcyclotetrasiloxane [D4]	Consumers	Oral	Acute systemic effects, Long-term systemic effects	3,7 mg/kg
	Consumers	Inhalation	Acute systemic effects, Acute local effects, Long-term systemic effects, Long-term local effects	13 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects, Acute local effects, Long-term systemic effects, Long-term local effects	73 mg/m <sup>3</sup>

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
octamethylcyclotetrasiloxane [D4]	Fresh water	1,5 µg/l
	Marine water	0,15 µg/l
	Fresh water sediment	0,64 mg/kg
	Soil	0,84 mg/kg
	Sewage treatment plant	10 mg/l
	Marine sediment	0,064 mg/kg
	Hazard for predators: secondary poisoning	41 mg/kg

## 8.2 Exposure controls

### Personal protective equipment

Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Hand protection  
Material : PVC disposable gloves  
Break through time : 120,00 min

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.  
Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

### Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.  
Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

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Print Date: 31.03.2026

---

### SECTION 9: Physical and chemical properties

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

Physical state	:	liquid
Colour	:	light brown
Odour	:	not significant
Odour Threshold	:	No data available
Melting point/ range	:	< 0 °C Method: derived
Boiling point/boiling range	:	> 200 °C (1.013 hPa) Method: derived
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 100,00 °C Method: 49 (Pensky-Martens)
Auto-ignition temperature	:	> 200 °C Method: DIN 51794
Decomposition temperature	:	No data available
pH	:	7 (20 °C) Concentration: 1 % Method: Universal pH-value indicator
Viscosity		
Viscosity, dynamic	:	No data available
Solubility(ies)		
Water solubility	:	immiscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	< 1 hPa (20 °C) Method: derived

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

---

Relative density	:	No data available
Density	:	1,0210 g/cm <sup>3</sup> (20,00 °C) Method: 4 (20°C oscillating U-tube)
Bulk density	:	Not applicable
Relative vapour density	:	No data available
Particle characteristics Assessment	:	This substance/ mixture contains nanoforms (according to REACH Regulation)
Particle size	:	Further particle properties for nanomaterials see section 3

### 9.2 Other information

Flammability (liquids)	:	Sustains combustion
Evaporation rate	:	No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

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## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Not classified due to lack of data.

#### Product:

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

---

Acute oral toxicity : Remarks: No data available

### **Skin corrosion/irritation**

Not classified due to lack of data.

#### **Product:**

Remarks : No data available

### **Serious eye damage/eye irritation**

Not classified due to lack of data.

#### **Product:**

Remarks : No data available

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified due to lack of data.

#### **Respiratory sensitisation**

Not classified due to lack of data.

#### **Product:**

Remarks : No data available

### **Components:**

#### **octamethylcyclotetrasiloxane [D4]:**

Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

### **Germ cell mutagenicity**

Not classified due to lack of data.

#### **Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

### **Carcinogenicity**

Not classified due to lack of data.

#### **Product:**

Remarks : No data available

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

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Print Date: 31.03.2026

---

### Reproductive toxicity

Not classified due to lack of data.

#### Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

### STOT - single exposure

Not classified due to lack of data.

#### Product:

Remarks : No data available

### STOT - repeated exposure

Not classified due to lack of data.

#### Product:

Remarks : No data available

### Repeated dose toxicity

#### Product:

Remarks : No data available

### Aspiration toxicity

Not classified due to lack of data.

#### Product:

No data available

## 11.2 Information on other hazards

### Endocrine disrupting properties

Not classified due to lack of data.

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Further information

#### Product:

Remarks : No data available

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

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### SECTION 12: Ecological information

#### 12.1 Toxicity

**Product:**

Toxicity to fish : Remarks: No data available

#### 12.2 Persistence and degradability

**Product:**

Biodegradability : Remarks: No data available

#### 12.3 Bioaccumulative potential

**Product:**

Bioaccumulation : Remarks: 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 components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

**Components:**

**decamethylcyclopentasiloxane:**

Assessment : Persistent, Bioaccumulative and Toxic (PBT).

: Very persistent and very bioaccumulative (vPvB).

**octamethylcyclotetrasiloxane [D4]:**

Assessment : Persistent, Bioaccumulative and Toxic (PBT).

: Very persistent and very bioaccumulative (vPvB).

**dodecamethylcyclohexasiloxane:**

Assessment : Persistent, Bioaccumulative and Toxic (PBT).

: Very persistent and very bioaccumulative (vPvB).

#### 12.6 Endocrine disrupting properties

**Product:**

Assessment : The substance/mixture does not contain components

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

#### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

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## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR : UN 3082  
IMDG : UN 3082  
IATA : UN 3082

### 14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Siloxanes)  
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Siloxanes)  
IATA : Environmentally hazardous substance, liquid, n.o.s.  
(Siloxanes)

### 14.3 Transport hazard class(es)

ADR : 9

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

**IMDG** : 9

**IATA** : 9

### 14.4 Packing group

#### ADR

Packing group : III  
Classification Code : M6  
Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : -

#### IMDG

Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Remarks : IMDG Code segregation group - none

#### IATA (Cargo)

Packing instruction (cargo aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous Dangerous Goods

#### IATA (Passenger)

Packing instruction (passenger aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous Dangerous Goods

### 14.5 Environmental hazards

#### ADR

Environmentally hazardous : yes

#### IMDG

Marine pollutant : yes

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3  Number on list 70: decamethylcyclopentasiloxane, octamethylcyclotetrasiloxane [D4], dodecamethylcyclohexasiloxane  Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	decamethylcyclopentasiloxane  octamethylcyclotetrasiloxane [D4]  dodecamethylcyclohexasiloxane
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E2	ENVIRONMENTAL HAZARDS

### 15.2 Chemical safety assessment

Not applicable

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## SECTION 16: Other information

Items where relevant changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

### Full text of H-Statements

EUH440	:	Accumulates in the environment and living organisms including in humans.
EUH441	:	Strongly accumulates in the environment and living organisms including in humans.
H226	:	Flammable liquid and vapour.
H361f	:	Suspected of damaging fertility.
H410	:	Very toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Aquatic Chronic	:	Long-term (chronic) aquatic hazard
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# SAFETY DATA SHEET

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## BYK-017

Version: 9.0  
SDB\_MT

Revision Date: 24.03.2026

Date of last issue: 19.12.2025  
Print Date: 31.03.2026

Flam. Liq.	:	Flammable liquids
PBT	:	Persistent, bioaccumulative and toxic
Repr.	:	Reproductive toxicity
vPvB	:	Very persistent and very bioaccumulative

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - 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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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

### Further information

#### Classification of the mixture:

Aquatic Chronic 2	H411
PBT	EUH440
vPvB	EUH441

#### Classification procedure:

Calculation method
Calculation method
Calculation method

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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MT / EN