

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : KADIOL 50  
Revision date : 24.11.2023  
Print date : 24.11.2023

Version (Revision) : 5.0.1 (5.0.0)

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

### 1.1 Product identifier

KADIOL 50  
UFI-Code: CRW2-V1KG-E40N-JPSC

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

#### Relevant identified uses

Metal working fluids

#### Uses advised against

No information available.

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

#### Supplier (manufacturer/importer/downstream user/distributor)

KADIA Inc.

**Street :** 8020 Kensington Ct.

**Postal code/City :** MI 48116 / Brighton

**Telephone :** +1 (248)-446-1970

**Telefax :** +1 (248)-446-1950

**E-mail address :** info@kadiausa.com

### 1.4 Emergency telephone number

+1 703-527-3887 (Chemtrec Emergency Phone Number)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

Asp. Tox. 1 ; H304 - Aspiration hazard : Category 1 ; May be fatal if swallowed and enters airways.

Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Chronic 3 ; Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

##### Hazard pictograms



Health hazard (GHS08)

##### Signal word

Danger

##### Hazard components for labelling

Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cycloalkanes, < 0,03% aromatics

##### Hazard statements

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

##### Precautionary statements

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P273 Avoid release to the environment.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/....  
P331 Do NOT induce vomiting.  
P405 Store locked up.

### 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description

Base Oil and Additives

#### Hazardous ingredients

Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cycloalkanes, < 0,03% aromatics ; REACH No. : 01-2119827000-58-0000 ; EC No. : 934-956-3

Weight fraction :  $\geq 90 - < 100$  %  
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304

2,6-DI-TERT-BUTYL-P-CRESOL ; REACH No. : 01-2119565113-46-0000 ; EC No. : 204-881-4; CAS No. : 128-37-0

Weight fraction :  $\geq 0,25 - < 0,5$  %  
Classification 1272/2008 [CLP] : Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

Alcohols, C12-14, ethoxylated ; REACH No. : 01-2119487984-16-0003 ; EC No. : 500-213-3; CAS No. : 68439-50-9

Weight fraction :  $< 0,25$  %  
Classification 1272/2008 [CLP] : Aquatic Acute 1 ; H400 Aquatic Chronic 3 ; H412

#### Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. Where appropriate artificial ventilation. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

Change contaminated, saturated clothing. After contact with skin, wash with plenty of water and soap. In case of skin irritation, consult a physician.

#### After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Do NOT induce vomiting. Call a physician immediately. Rinse mouth thoroughly with water. Where appropriate artificial ventilation. Observe risk of aspiration if vomiting occurs.

#### Self-protection of the first aider

No direct artificial respiration to be given by first aider. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

No action shall be taken involving any personal risk or without suitable training.

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

The following symptoms may occur: Cough, Respiratory complaints, Dyspnoea, Fever, Symptoms can occur only after several hours.

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

First Aid, decontamination, treatment of symptoms. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>), Water spray, Water mist,

#### Unsuitable extinguishing media

Strong water jet

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

#### Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide, Nitrogen oxides (NO<sub>x</sub>), Smoke and other incomplete combustion products.

### 5.3 Advice for firefighters

#### Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4 Additional information

Do not inhale explosion and combustion gases. Use water spray jet to protect personnel and to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

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

Use personal protection equipment. Avoid contact with skin, eyes and clothes. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Ventilate affected area. Vapours can form explosive mixtures with air. Remove all sources of ignition.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

#### For containment

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

#### For cleaning up

Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically, placing in appropriate containers for disposal. Ventilate affected area. Clean contaminated articles and floor according to the environmental legislation.

### 6.4 Reference to other sections

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Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use only in well-ventilated areas. Put lids on containers immediately after use. Avoid contact with skin, eyes and clothes. Avoid: Inhalation of vapours or spray/mists Keep away from sources of ignition - No smoking. Provide earthing of containers, equipment, pumps and ventilation facilities. Use only antistatically equipped (spark-free) tools.

#### Protective measures

##### Measures to prevent fire

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Take precautionary measures against static discharges.

##### Environmental precautions

Do not allow to enter into surface water or drains.

#### Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

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

#### Packaging materials

Only use containers specifically approved for the substance/product.

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Protect containers against damage.

#### Hints on joint storage

Keep away from: Oxidizing agent

Storage class : 10

Storage class (TRGS 510) : 10

#### Do not store together with

Food and feedingstuffs

#### Further information on storage conditions

Recommended storage temperature : 5 - 40°C / 40 - 105°F.

Protect against : Frost Heat. UV-radiation/sunlight Water Humidity.

Storage stability : Product may be stored for up to 24 months under described conditions.

### 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

2,6-DI-TERT-BUTYL-P-CRESOL ; CAS No. : 128-37-0

Limit value type (country of origin) : TRGS 900 ( D )

Parameter : E: inhalable fraction

Limit value : 10 mg/m<sup>3</sup>

Peak limitation : 4(II)

Remark : Y

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### DNEL-/PNEC-values

#### DNEL/DMEL

2,6-DI-TERT-BUTYL-P-CRESOL ; CAS No. : 128-37-0

Limit value type : DNEL worker (systemic)

Exposure route : Dermal

Exposure frequency : Long-term

Limit value : 8,3 mg/kg

Limit value type : DNEL worker (systemic)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 5,8 mg/m<sup>3</sup>

Alcohols, C12-14, ethoxylated ; CAS No. : 68439-50-9

Limit value type : DNEL worker (systemic)

Exposure route : Dermal

Exposure frequency : Long-term

Limit value : 2080 mg/kg

Limit value type : DNEL worker (systemic)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 294 mg/m<sup>3</sup>

#### Remark

The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation.

#### PNEC

2,6-DI-TERT-BUTYL-P-CRESOL ; CAS No. : 128-37-0

Limit value type : PNEC (Aquatic, freshwater)

Limit value : 0,004 mg/l

Limit value type : PNEC (Aquatic, marine water)

Limit value : 0,0004 mg/l

Limit value type : PNEC (Sediment, freshwater)

Limit value : 1,29 mg/kg

Limit value type : PNEC (Sewage treatment plant)

Limit value : 100 mg/l

Alcohols, C12-14, ethoxylated ; CAS No. : 68439-50-9

Limit value type : PNEC (Aquatic, freshwater)

Limit value : 0,074 mg/l

Limit value type : PNEC (Aquatic, marine water)

Limit value : 0,007 mg/l

Limit value type : PNEC (Sediment, marine water)

Limit value : 66,67 mg/kg

Limit value type : PNEC (Soil)

Limit value : 1 mg/kg

Limit value type : PNEC (Sewage treatment plant)

Limit value : 10 mg/l

## 8.2 Exposure controls

### Appropriate engineering controls

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Use only in well-ventilated areas. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Technical measures and the application of suitable work processes have priority over personal protection equipment.

### Personal protection equipment

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

### Eye/face protection

Eye glasses with side protection EN 166

### Skin protection

#### Hand protection

Hand protection is not required.

By long-term hand contact: Wear suitable gloves. DIN EN 374

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Check leak tightness/impermeability prior to use.

Do not wear gloves near rotary machines and tools.

#### Suitable material :

Wearing time with permanent contact:

Material: NBR (Nitrile rubber), CR (polychloroprene, chloroprene rubber), PVA (Polyvinyl alcohol),

Thickness of the glove material: 0,70 mm

Breakthrough time (maximum wearing time): > 480 min

Wearing time with occasional contact (splashes):

Material: NBR (Nitrile rubber), CR (polychloroprene, chloroprene rubber), PVA (Polyvinyl alcohol),

Thickness of the glove material: 0,40 mm

Breakthrough time (maximum wearing time): > 30 min

**Breakthrough time (maximum wearing time):** : For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Body protection

Body protection: not required. If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

### Respiratory protection

Usually no personal respiratory protection necessary.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Respiratory protection necessary at: exceeding exposure limit values, insufficient ventilation, aerosol or mist formation.

#### Suitable respiratory protection apparatus

Combination filtering device

### General information

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Wash contaminated clothing prior to re-use. Do not put any product-impregnated cleaning rags into your trouser pockets. Apply skin care products after work.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** Liquid

**Colour :** yellow

**Odour :** characteristic

#### Safety characteristics

**pH :** not applicable

**Melting point/freezing point :** No data available

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<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	>	270	°C	
<b>Flash point :</b>		>	140	°C	DIN EN ISO 2592
<b>Lower explosion limit :</b>			0,6	Vol-%	
<b>Upper explosion limit :</b>			6,5	Vol-%	
<b>Vapour pressure :</b>	( 20 °C )		No data available		
<b>Density :</b>	( 15 °C )		0,824	g/cm <sup>3</sup>	DIN EN ISO 12185
<b>Water solubility :</b>	( 20 °C )		practically insoluble		
<b>log P O/W :</b>			not applicable		
<b>Auto-ignition temperature :</b>			No data available		
<b>Cinematic viscosity :</b>	( 40 °C )	approx.	5	mm <sup>2</sup> /s	DIN EN ISO 3104
<b>Decomposition temperature :</b>			not determined		
<b>Odour threshold :</b>			No data available		
<b>Relative vapour density :</b>	( 20 °C )		No data available		
<b>Evaporation rate :</b>			No data available		
<b>Vapourisation rate :</b>			No data available		
<b>Maximum VOC content (Switzerland) :</b>			0	Weight-%	
<b>Oxidising liquids :</b>		Not oxidising.			
<b>Explosive properties :</b>		Not explosive according to EU A.14.			

## 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

Oxidising agent, strong.

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

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

Toxicological data are not available. The statement is derived from the properties of the single components. Data apply to the main component.

#### Acute toxicity

No data available to indicate product may be an acute toxic oral, dermal or inhalation hazard.

#### Acute oral toxicity

Parameter : LD50 ( Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cycloalkanes, < 0,03% aromatics )  
Exposure route : Oral  
Species : Rat

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Effective dose : > 5000 mg/kg  
Method : OECD 401

### Acute dermal toxicity

Parameter : LD50 ( Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cycloalkanes, < 0,03% aromatics )

Exposure route : Dermal  
Species : Rabbit  
Effective dose : > 3160 mg/kg  
Method : OECD 402

### Acute inhalation toxicity

Parameter : LC50 ( Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cycloalkanes, < 0,03% aromatics )

Exposure route : Inhalation  
Species : Rat  
Effective dose : > 5 mg/l  
Method : OECD 403

### Corrosion

non-irritant.

### Respiratory or skin sensitisation

not sensitising.

### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

#### Carcinogenicity

no known significant effects or critical hazards.

#### Germ cell mutagenicity

no known significant effects or critical hazards.

#### Reproductive toxicity

no known significant effects or critical hazards.

### STOT-single exposure

#### STOT SE 1 and 2

Not expected to cause organ damage from a single exposure.

### STOT-repeated exposure

#### STOT RE 1 and 2

Not expected to cause organ damage from prolonged or repeated exposure.

### Aspiration hazard

May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material. For viscosity data, see section 9.

## 11.2 Information on other hazards

No information available.

## SECTION 12: Ecological information

### 12.1 Toxicity

For the product ecotoxicological data are not available. The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

#### Aquatic toxicity

Harmful to aquatic life.

#### Acute (short-term) fish toxicity

Parameter : LC50 ( 2,6-DI-TERT-BUTYL-P-CRESOL ; CAS No. : 128-37-0 )



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Species : Danio rerio (zebrafish)  
Effective dose : > 0,57 mg/l  
Exposure time : 96 h  
Evaluation : Very toxic to fish.  
Parameter : LC50 ( Alcohols, C12-14, ethoxylated ; CAS No. : 68439-50-9 )  
Species : Danio rerio (zebrafish)  
Effective dose : > 0,1 - 1 mg/l  
Exposure time : 96 h  
Method : OECD 203

### Acute (short-term) toxicity to crustacea

Parameter : EC50 ( 2,6-DI-TERT-BUTYL-P-CRESOL ; CAS No. : 128-37-0 )  
Species : Daphnia magna (Big water flea)  
Effective dose : > 0,17 mg/l  
Exposure time : 48 h  
Evaluation : Very toxic to daphnia.

### Acute (short-term) toxicity to algae and cyanobacteria

Parameter : IC50 ( 2,6-DI-TERT-BUTYL-P-CRESOL ; CAS No. : 128-37-0 )  
Species : Desmodesmus subspicatus  
Effective dose : > 0,42 mg/l  
Exposure time : 72 h  
Evaluation : Very toxic to algae.  
Parameter : EC50 ( Alcohols, C12-14, ethoxylated ; CAS No. : 68439-50-9 )  
Species : Selenastrum capricornutum  
Effective dose : > 0,1 - 1 mg/l  
Exposure time : 72 h  
Method : OECD 201  
Parameter : EC50 ( Alcohols, C12-14, ethoxylated ; CAS No. : 68439-50-9 )  
Species : Daphnia magna (Big water flea)  
Effective dose : > 0,1 - 1 mg/l  
Exposure time : 48 h  
Method : OECD 202

## 12.2 Persistence and degradability

### Abiotic degradation

Poorly watersoluble, organic product. Can be mechanically precipitated to a large extent in biological sewage plants.

### Biodegradation

Part of the components is biodegradable.

## 12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 12.6 Endocrine disrupting properties

No information available.

## 12.7 Other adverse effects

Damage can be caused through mechanical influence of the product (eg. sticking).

## 12.8 Additional ecotoxicological information

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Do not allow uncontrolled discharge of product into the environment.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Directive 2008/98/EC (Waste Framework Directive)

###### After intended use

Consult the appropriate local waste disposal expert about waste disposal. Dispose of waste according to applicable legislation.

###### Waste codes/waste designations according to EWC/AVV

12 01 07\* Mineral-based machining oils free of halogens (except emulsions and solutions).

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

###### Other disposal recommendations

Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Do not pressurise, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Do not pressurise, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition.

###### Additional information

Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed of. Dispose of waste according to applicable legislation.

### SECTION 14: Transport information

#### 14.1 UN number

No dangerous good in sense of these transport regulations.

#### 14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

#### 14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

#### 14.4 Packing group

No dangerous good in sense of these transport regulations.

#### 14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

#### 14.6 Special precautions for user

None

### SECTION 15: Regulatory information

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

##### National regulations

###### Technische Anleitung Luft (TA-Luft)

Weight fraction (Number 5.2.5. I) : < 5 %

###### Water hazard class

Classification according to AwSV - Class : 1 (Slightly hazardous to water)

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### 15.2 Chemical Safety Assessment

No information available.

## SECTION 16: Other information

### 16.1 Indication of changes

None

### 16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
GHS: Globally Harmonized System on the Classification and Labelling of Chemicals  
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures,  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
EC50: Effective concentration, 50 percent  
DNEL: Derived No Effect Level  
PNEC: Predicted No Effect Concentration  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

### 16.3 Key literature references and sources for data

Sources of information used in preparing this SDS included one or more of the following: Product Dossiers and SDS from suppliers, complemented by public sources, as appropriate (GESTIS, the EU IUCLID Data Base, U.S. NTP publications, e.g.).

### 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

### 16.5 Relevant H- and EUH-phrases (Number and full text)

H304	May be fatal if swallowed and enters airways.
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.

### 16.6 Training advice

Provide adequate information, instruction and training for operators.

### 16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.