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



### Single-Element Standard Solution ROTI®Star 1000 mg/l Cd in 75 cSt **Hydrocarbon Oil**

article number: 1PP1 date of compilation: 2022-09-28

Version: 1.0 en

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

#### 1.1 **Product identifier**

Identification of the substance Single-Element Standard Solution ROTI®Star

1000 mg/l Cd in 75 cSt Hydrocarbon Oil

Article number **1PP1** 

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

Relevant identified uses: Laboratory and analytical use

Laboratory chemical

Uses advised against: Do not use for products which come into contact

with foodstuffs. Do not use for private purposes

(household).

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

Carl Roth GmbH + Co KG Schoemperlenstr. 3-5 D-76185 Karlsruhe

Germany

Telephone:+49 (0) 721 - 56 06 0 Telefax: +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de Website: www.carlroth.de

Competent person responsible for the safety data :Department Health, Safety and Environment

sheet:

sicherheit@carlroth.de e-mail (competent person):

#### **Emergency telephone number** 1.4

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

## **SECTION 2: Hazards identification**

#### Classification of the substance or mixture 2.1

#### Classification acc. to GHS

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.10	Aspiration hazard	1	Asp. Tox. 1	H304
4.1C	Hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

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#### 2.2 Label elements

Labelling

Signal word Danger

**Pictograms** 

GHS08



#### **Hazard statements**

H304 May be fatal if swallowed and enters airways H412 Harmful to aquatic life with long lasting effects

#### **Precautionary statements**

**Precautionary statements - prevention** 

P280 Wear protective gloves/protective clothing/eye protection/face protection

Hazardous ingredients for labelling: Hydrocarbon Oil

#### 2.3 Other hazards

Special danger of slipping by leaking/spilling product.

#### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

#### 3.1 Substances

not relevant (mixture)

#### 3.2 Mixtures

#### **Description of the mixture**

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Hydrocarbon Oil	CAS No 8042-47-5 EC No 232-455-8	> 95	Asp. Tox. 1 / H304		
Organo Cadmium Compound	Index No 048-001-00-5	< 2,5	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	<u>(!)</u>	1 A GHS-HC

#### Notes

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<sup>1:</sup> The concentration stated or, in the absence of such concentrations, the generic concentrations set out in this Regulation are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture

A: Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.

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#### **Notes**

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

Name of sub- stance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
Hydrocarbon Oil	CAS No 8042-47-5 EC No 232-455-8	-	-	-	inhalation: dust/ mist
Organo Cadmi- um Compound		-	-	500 <sup>mg</sup> / <sub>kg</sub> 1.100 <sup>mg</sup> / <sub>kg</sub> 11 <sup>mg</sup> / <sub>l</sub> /4h	oral dermal inhalation: va- pour

For full text of abbreviations: see SECTION 16

## **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures



#### **General notes**

Take off contaminated clothing.

#### **Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### **Following skin contact**

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Call a physician immediately. Observe aspiration hazard if vomiting occurs.

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

Aspiration hazard

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

none

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## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media



### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water spray, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Combustible.

#### **Hazardous combustion products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), May produce toxic fumes of carbon monoxide if burning.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

#### **SECTION 6: Accidental release measures**

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



#### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

## **6.2** Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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

#### Advice on how to contain a spill

Covering of drains.

#### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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## **SECTION 7: Handling and storage**

#### **Precautions for safe handling** 7.1

Provision of sufficient ventilation.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

### **Incompatible substances or mixtures**

Observe hints for combined storage.

#### Consideration of other advice:

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

#### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

#### 8.1 **Control parameters**

#### **National limit values**

#### **Occupational exposure limit values (Workplace Exposure Limits)**

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
GB	cadmium com- pounds		WEL		0,025					Cd	EH40/ 2005

#### Notation

Calculated as Cd (cadmium)

Ceiling-C Ceiling value is a limit value above which exposure should not occur

Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-STEL

**TWA** 

minute period (unless otherwise specified)
Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

#### Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
Hydrocarbon Oil	8042-47-5	DNEL	164,6 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Hydrocarbon Oil	8042-47-5	DNEL	217,1 mg/ kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

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#### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)

#### **Eye/face protection**





Use safety goggle with side protection.

#### Skin protection





#### hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

#### type of material

NBR (Nitrile rubber)

#### material thickness

≥0,3 mm

#### breakthrough times of the glove material

>480 minutes (permeation: level 6)

### other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### **Respiratory protection**





Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

#### **Environmental exposure controls**

Keep away from drains, surface and ground water.

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## SECTION 9: Physical and chemical properties

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

Physical state liquid Form viscous

Colour yellowish brown Odour characteristic Melting point/freezing point not determined >218 °C at 1.013 hPa

Boiling point or initial boiling point and boiling

range

Flammability this material is combustible, but will not ignite

readily

Lower and upper explosion limit not determined

Flash point 115 °C

Auto-ignition temperature >325 °C (auto-ignition temperature (liquids and

gases))

Decomposition temperature not relevant

not determined pH (value) not determined Kinematic viscosity

Solubility(ies)

Water solubility (practically insoluble)

Partition coefficient

Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure not determined

Density and/or relative density

0,862 g/cm3 at 20 °C Density

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

Other safety parameters

Oxidising properties none

9.2 Other information

> Information with regard to physical hazard hazard classes acc. to GHS

(physical hazards): not relevant classes:

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Other safety characteristics:

There is no additional information.

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

#### If heated

Vapours may form explosive mixtures with air.

#### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser

#### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

#### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### **Classification procedure**

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### Classification acc. to GHS

#### **Acute toxicity**

Shall not be classified as acutely toxic.

#### Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Hydrocarbon Oil	8042-47-5	inhalation: dust/mist	
Organo Cadmium Compound		oral	500 <sup>mg</sup> / <sub>kg</sub>
Organo Cadmium Compound		dermal	1.100 <sup>mg</sup> / <sub>kg</sub>
Organo Cadmium Compound		inhalation: vapour	11 <sup>mg</sup> / <sub>l</sub> /4h

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Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Hydrocarbon Oil	8042-47-5	oral	LD50	>5.000 <sup>mg</sup> / <sub>kg</sub>	rat
Hydrocarbon Oil	8042-47-5	inhalation: dust/mist	LC50	>5 <sup>mg</sup> / <sub>l</sub> /4h	rat
Hydrocarbon Oil	8042-47-5	dermal	LD50	>2.000 <sup>mg</sup> / <sub>kg</sub>	rabbit

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### **Aspiration hazard**

May be fatal if swallowed and enters airways.

#### Symptoms related to the physical, chemical and toxicological characteristics

#### If swallowed

aspiration hazard

#### • If in eyes

Data are not available.

#### • If inhaled

Data are not available.

#### • If on skin

Data are not available.

#### Other information

none

## 11.2 Endocrine disrupting properties

None of the ingredients are listed.

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#### 11.3 Information on other hazards

There is no additional information.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.

#### **Biodegradation**

Data are not available.

#### 12.2 Process of degradability

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

#### 12.6 Endocrine disrupting properties

None of the ingredients are listed.

### 12.7 Other adverse effects

Data are not available.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

## 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### Properties of waste which render it hazardous

**HP 5** specific target organ toxicity (STOT)/aspiration toxicity **HP 14** ecotoxic

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

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## **SECTION 14: Transport information**

**14.1 UN number or ID number** not subject to transport regulations

**14.2 UN proper shipping name** not assigned

**14.3 Transport hazard class(es)** none

**14.4 Packing group** not assigned

**14.5** Environmental hazards non-environmentally hazardous acc. to the dan-

gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

## **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

#### **Seveso Directive**

2012/18/EU (Seveso III)							
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes				
	not assigned						

#### **Deco-Paint Directive**

VOC content	100 % 862 <sup>g</sup> / <sub>l</sub>
· ·	

#### **Industrial Emissions Directive (IED)**

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VOC content	100 %
VOC content	862 <sup>g</sup> / <sub>l</sub>

#### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

#### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

#### Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Organo Cadmium Compound	cadmium compounds		b)	HAZ
Organo Cadmium Compound	Cadmium and its compounds (de- pending on water hardness classes)	7440-43-9	c)	
Organo Cadmium Compound	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		a)	
Organo Cadmium Compound	Metals and their compounds		a)	

#### Legend

Indicative list of the main pollutants List of priority substances in the field of water policy Environmental Quality Standards for Priority Substances and certain other pollutants Identified as priority hazardous substance A) B) C) HAZ

## Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

#### Regulation on drug precursors

none of the ingredients are listed

#### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

#### Regulation concerning the export and import of hazardous chemicals (PIC)

chemicals subject to the international prior informed consent (PIC) procedure (the 'PIC procedure').

Name of substance	Name acc. to inventory	CAS No	Wt%	Category / subcat- egory	Use limita- tion
Organo Cadmium Compound	cadmium compounds		2,4	i(1) i(2)	sr sr
Organo Cadmium Compound	cadmium compounds		2,4	i	sr

Legend

Category: i - industrial chemical

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Legend

Sub-category: i(1) - industrial chemical for professional use

i(2) Sub-category: i(2) - industrial chemical for public use

Use limitation: severe restriction (for the sub-category or sub-categories concerned) according to Union legislation

#### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

#### National regulations(GB)

## List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

none of the ingredients are listed

## Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
Single-Element	this product meets the criteria for classi- fication in accordance with Regulation No 1272/2008/EC		3
Organo Cadmium Compound	Cadmium compounds		23

#### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### **National inventories**

Country	Inventory	Status
AU	AIIC	not all ingredients are listed
CA	DSL	not all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed
US	TSCA	not all ingredients are listed

Legend

AIIC CICR Australian Inventory of Industrial Chemicals Chemical Inventory and Control Regulation Domestic Substances List (DSL)

EC Substance Inventory (EINECS, ELINCS, NLP)
Inventory of Existing Chemical Substances Produced or Imported in China
National Inventory of Chemical Substances

Korea Existing Chemicals Inventory New Zealand Inventory of Chemicals Philippine Inventory of Chemicals and Chemical Substances (PICCS)

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Legend

REACH Reg. REACH registered substances
TCSI Taiwan Chemical Substance Inventory
TSCA Toxic Substance Control Act

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## **SECTION 16: Other information**

#### **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations	
Acute Tox.	Acute toxicity	
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- land Waterways)	
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)	
Aquatic Acute	Hazardous to the aquatic environment - acute hazard	
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard	
Asp. Tox.	Aspiration hazard	
ATE	Acute Toxicity Estimate	
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)	
Ceiling-C	Ceiling value	
DGR	Dangerous Goods Regulations (see IATA/DGR)	
DNEL	Derived No-Effect Level	
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi fier of substances commercially available within the EU (European Union)	
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)	
EINECS	European Inventory of Existing Commercial Chemical Substances	
ELINCS	European List of Notified Chemical Substances	
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)	
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations	
IATA	International Air Transport Association	
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)	
ICAO	International Civil Aviation Organization	
IMDG	International Maritime Dangerous Goods Code	
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008	
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval	

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Abbr.	Descriptions of used abbreviations
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

#### **Classification procedure**

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
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.

#### **Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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