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

# n-Propanol

Version number: 5.0 Revision: 17.08.2021 Replaces version of: 25.05.2021 (4) SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1 **Product identifier** Identification of the substance n-Propanol Registration number (REACH) 01-2119486761-29-xxxx EC number 200-746-9 Index number in CLP Annex VI 603-003-00-0 CAS number 71-23-8 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses Industrial use 1.3 Details of the supplier of the safety data sheet FRIEDRICH SCHARR KG Liebknechtstraße 50 70565 Stuttgart Germany Telephone: +49 711 7868-0 Telefax: +49 711 7868-489 e-mail: info@scharr.de Website: www.scharr.de e-mail (competent person) produktsicherheit@scharr.de (Produktsicherheit) 1.4 **Emergency telephone number Emergency information service** +49 711 7868-237 This number is only available during the following office hours: Mon-Fri 07:00 - 17:00 Poison centre Country Name Postal code/city Telephone Germany **Giftinformation Freiburg** 79106 Freiburg im Bre-+49 (0)761 19240 isgau **SECTION 2: Hazards identification** 

## 2.1 Classification of the substance or mixture

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

Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
flammable liquid	2	Flam. Liq. 2	H225
serious eye damage/eye irritation	1	Eye Dam. 1	H318
specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.



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## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- signal word danger
- pictograms

GHS02, GHS05, GHS07



#### - hazard statements

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

#### - precautionary statements

precaacionary staten	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to industrial combustion plant.

## 2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Name of substance	Propan-1-ol
Identifiers	
REACH Reg. No	01-2119486761-29-xxxx
EC No	200-746-9
CAS No	71-23-8
Index No	603-003-00-0

## SECTION 4: First aid measures

#### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Self-protection of the first aider.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

#### Following skin contact

Wash with plenty of soap and water.



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#### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a doctor.

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

Narcotic effects. Breathing difficulties. Headache. Vertigo.

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

Subsequent observance for pneumonia and pulmonary oedema. Supervise the blood circulation.

#### **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO2), Sand

Unsuitable extinguishing media

Water jet

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

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Danger of bursting container.

#### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

## 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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

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

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Provision of sufficient ventilation.

#### 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

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder



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## Appropriate containment techniques

Use of adsorbent materials.

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.

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

#### 7.1 Precautions for safe handling

#### Recommendations

#### - measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

#### - specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

#### Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

## 7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

#### - explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

#### - flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

#### - ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- specific designs for storage rooms or vessels

# - Recommended storage temperature 5 – 25 °C

- Lagerklasse (storage class according to TRGS 510, 3 (flammable and desensitizing explosive liquids) Germany)

#### - packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

#### 7.3 Specific end use(s)

See section 16 for a general overview.



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# **SECTION 8: Exposure controls/personal protection**

#### 8.1 **Control parameters**

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Occupa	tional expo	osure limit valu	ies (Workpl	ace Expos	sure Limits)	

Coun- try	Name of sub- stance	CAS No	Identifi- er	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Source
AT	Propan-1- ol	71-23-8	МАК	200	500			GKV
СН	Propan-1- ol	71-23-8	МАК	200	500			SUVA

Notation

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short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute peri-od (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) STEL

TWA

## Human health values

Relevant DNELs and other threshold levels						
Endpoint	Threshold level	Used in	Exposure time			
DNEL	268 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects		
DNEL	NEL 1.723 mg/m <sup>3</sup> human, inhalatory		worker (industry)	acute - systemic effects		
DNEL	136 mg/kg bw/ day	human, dermal	worker (industry)	chronic - systemic effects		

## **Environmental values**

Relevant	Relevant PNECs and other threshold levels						
End- point	Threshold level	Organism	Exposure time				
PNEC	10 <sup>mg</sup> /l	aquatic organisms	water	intermittent release			
PNEC	6,83 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single instance)			
PNEC	0,683 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single instance)			
PNEC	96 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)			
PNEC	27,5 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	freshwater sediment	short-term (single instance)			
PNEC	2,75 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	marine sediment	short-term (single instance)			
PNEC	1,49 <sup>mg</sup> / <sub>kg</sub>	terrestrial organisms	soil	short-term (single instance)			

#### 8.2 **Exposure controls**

Appropriate engineering controls General ventilation.



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Individual protection measures (personal protective equipment)

#### Eye/face protection

Wear eye/face protection.

- Skin protection
- hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leaktightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

- type of material

NBR: acrylonitrile-butadiene rubber, IIR: isobutene-isoprene (butyl) rubber

- material thickness

NBR 0,55 mm IIR 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. Wash hands thoroughly after handling.

#### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

#### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	-127 °C at 1.013 hPa
Boiling point or initial boiling point and boiling range	97 °C at 1.013 hPa
Evaporation rate	not determined
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	2,1 vol% - 13,5 vol%
Flash point	23,5 °C at 1.013 hPa
Auto-ignition temperature	400 °C at 1.013 hPa
pH (value)	not determined



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Solubility(ies)		
Water solubility		miscible in any proportion
Partition coefficient		
Partition coefficien	t n-octanol/water (log value)	0,2 (pH value: 7, 25 °C)
Vapour pressure		19,9 hPa at 20 °C
Density and/or relat	ive density	
Density		0,8 <sup>g</sup> / <sub>cm³</sub> at 20 °C
Particle characteris	tics	not relevant (liquid)
0.2 Other information		
Information with reclasses	egard to physical hazard	there is no additional information
Other safety charac	teristics	
Miscibility		Completely miscible with water.
Temperature class	(EU, acc. to ATEX)	T2 (maximum permissible surface temperature on the equip- ment: 300°C)

## SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". It's a reactive substance. The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

#### 10.2 Chemical stability

See below "Conditions to avoid".

## 10.3 Possibility of hazardous reactions

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

#### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

#### 10.5 Incompatible materials

Oxidisers



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## 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## **SECTION 11: Toxicological information**

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

### Classification according to GHS (1272/2008/EC, CLP)

#### Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful in contact with skin.

Acute toxicity					
Exposure route	Endpoint	Value	Species		
dermal	LD50	4.032 <sup>mg</sup> / <sub>kg</sub>	rabbit		

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### 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

May cause drowsiness or dizziness.

#### Specific target organ toxicity - repeated exposure

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

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

#### 11.2 Information on other hazards

There is no additional information.



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# **SECTION 12: Ecological information**

## 12.1 Toxicity

Acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment. Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 1, slightly hazardous to water (Germany)

Aquatic toxicity (acute)						
Endpoint	Value	Species	Exposure time			
LC50	4.555 <sup>mg</sup> / <sub>l</sub>	fish	96 h			
EC50	3.644 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	48 h			
ErC50	9.170 <sup>mg</sup> / <sub>l</sub>	algae	48 h			

## Aquatic toxicity (chronic)

Endpoint	Value	Species	Exposure time
EC50	>100 <sup>mg</sup> / <sub>l</sub>	aquatic invertebrates	21 d

#### Biodegradation

The substance is readily biodegradable. The relevant substances of the mixture are readily biodegradable. Data are not available.

## 12.2 Persistence and degradability

Process of degradability		
Process	Degradation rate	Time
biotic/abiotic	83 - 92 %	28 d
oxygen depletion	64 %	5 d

# 12.3 Bioaccumulative potential

Data are not available.

n-octanol/water (log KOW)	0,2 (pH value: 7, 25 °C)
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#### 12.4 Mobility in soil

Henry's law constant	0,177 <sup>Pa m³</sup> / <sub>mol</sub> at 20 °C
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## 12.5 Results of PBT and vPvB assessment

Data are not available.

**12.6 Endocrine disrupting properties** Not listed.

## 12.7 Other adverse effects

Data are not available.



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## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

#### Sewage disposal-relevant information

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

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### **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.

#### Remarks

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

### **SECTION 14: Transport information**

## 14.1 UN number or ID number

14.1	ON number or 1D number	
	ADR/RID/ADN	UN 1274
	IMDG-Code	UN 1274
	ICAO-TI	UN 1274
14.2	UN proper shipping name	
	ADR/RID/ADN	n-PROPANOL
	IMDG-Code	n-PROPANOL
	ICAO-TI	n-Propanol
14.3	Transport hazard class(es)	
	ADR/RID/ADN	3
	IMDG-Code	3
	ICAO-TI	3
14.4	Packing group	
	ADR/RID/ADN	II
	IMDG-Code	II
	ICAO-TI	II
14.5	Environmental hazards	non-environmentally hazardous acc. to the dan- gerous goods regulations

#### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

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

The cargo is not intended to be carried in bulk.



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Transport of dangerous goods by roa information	d, rail and inland waterway (ADR/RID/ADN) - additio
Classification code	F1
Danger label(s)	3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	33
International Maritime Dangerous G	oods Code (IMDG) - additional information
Marine pollutant	-
Danger label(s)	3
•	
Special provisions (SP)	-
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-D
Stowage category	В
International Civil Aviation Organiza	tion (ICAO-IATA/DGR) - additional information
Danger label(s)	3
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

# **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)

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list not listed



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#### **Seveso Directive**

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	categories Qualifying quantity (tonnes) for the ap-Not plication of lower and upper-tier require- ments		Notes
P5c	flammable liquids (cat. 2, 3)	5.000	50.000	51)

Notation

51) flammable liquids, categories 2 or 3 not covered by P5a and P5b

#### VOC Deco-Paint Directive 2004/42/EC

VOC content	100 %

#### Industrial Emissions Directive (IED)

VOC content	100 %
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# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

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

not listed

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

Not listed.

#### **National regulations (Austria)**

Ordinance on combustible liquids (VbF)

- VbF (group and hazard class) BII (combustible liquids of group B, hazard class II)

### National regulations (Germany)

# Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK 1 slightly hazardous to water (water hazard class)

Index number 176

#### Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concen- tration	Notation
5.2.5	organic substances		≥ 25 wt%	0,5 <sup>kg</sup> / <sub>h</sub>	50 <sup>mg</sup> / <sub>m³</sub>	3)

Notation

3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m<sup>3</sup>, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

## National regulations Switzerland

#### Ordinance on the incentive tax on volatile organic compounds (VOCV)

VOC content (object of taxation): 100 % 2905.1290 (propan-1-ol)



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## **National inventories**

Country	Inventory	Status
AU	AICS	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed

## Legend

Legena	
AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

# **SECTION 16: Other information**

## Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
8.2	Type of material: NBR: acrylonitrile-butadiene rubber	Type of material: NBR: acrylonitrile-butadiene rubber, IIR: isobutene- isoprene (butyl) rubber
8.2	Material thickness: 0,55 mm	Material thickness: NBR 0,55 mm IIR 0,3 mm
8.2	Protective gloves Splash protection	
8.2	Type of material: nitrile	
12.6	Endocrine disrupting properties: Information on this property is not available.	Endocrine disrupting properties: Not listed.



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# Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations	
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)	
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)	
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)	
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures	
DGR	Dangerous Goods Regulations (see IATA/DGR)	
DNEL	Derived No-Effect Level	
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval	
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)	
EINECS	European Inventory of Existing Commercial Chemical Substances	
ELINCS	European List of Notified Chemical Substances	
EmS	Emergency Schedule	
ErC50	= EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control	
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions	
GKV	Grenzwerteverordnung	
IATA	International Air Transport Association	
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)	
ICAO	International Civil Aviation Organization	
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air	
IMDG	International Maritime Dangerous Goods Code	
IMDG-Code	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	
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during specified time interval	
NLP	No-Longer Polymer	
PBT	Persistent, Bioaccumulative and Toxic	
PNEC	Predicted No-Effect Concentration	
ppm	Parts per million	



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Abbr.	Descriptions of used abbreviations	
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	
SUVA	Grenzwerte am Arbeitsplatz, Suva	
SVHC	Substance of Very High Concern	
TRGS	Technische Regeln für GefahrStoffe (technical rules for hazardous substances, Germany)	
TWA	Time-weighted average	
VbF	Ordinance on combustible liquids (Austria)	
VOC	Volatile Organic Compounds	
vPvB	Very Persistent and very Bioaccumulative	

## Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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

Code	Text
H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

#### Disclaimer

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