

## Styrene $\geq 99,5\%$ , for synthesis, stabilized

article number: **2641**  
Version: **GHS 1.0 en**

date of compilation: 2016-08-29

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

### 1.1 Product identifier

Identification of the substance	<b>Styrene</b>
Article number	2641
Registration number (REACH)	01-2119457861-32-xxxx
Index No	601-026-00-0
EC number	202-851-5
CAS number	100-42-5

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

**Identified uses:** laboratory chemical

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

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](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

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

**e-mail (competent person)** : [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

### 1.4 Emergency telephone number

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Classification acc. to GHS			
Section	Hazard class	Hazard class and category	Hazard statement
2.6	flammable liquid	(Flam. Liq. 3)	H226
3.11	acute toxicity (inhal.)	(Acute Tox. 4)	H332
3.2	skin corrosion/irritation	(Skin Irrit. 2)	H315
3.3	serious eye damage/eye irritation	(Eye Irrit. 2A)	H319
3.7	reproductive toxicity	(Repr. 2)	H361d
3.9	specific target organ toxicity - repeated exposure	(STOT RE 2)	H373

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### Remarks

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

## 2.2 Label elements

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

#### Signal word

Warning

#### Pictograms



#### Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure (if inhaled).

#### Precautionary statements

##### Precautionary statements - prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.

##### Precautionary statements - response

P302+P352	IF ON SKIN: Wash with plenty of water.
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.

##### Precautionary statements - storage

P403+P235	Store in a well-ventilated place. Keep cool.
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For professional users only

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Warning**

Symbol(s)



H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3 Other hazards

There is no additional information.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance	Styrene
Index No	601-026-00-0
Registration number (REACH)	01-2119457861-32-xxxx
EC number	202-851-5
CAS number	100-42-5
Molecular formula	C <sub>8</sub> H <sub>8</sub>
Molar mass	104.2 g/mol

#### Impurities and additives, classification acc. to EU regulation

Name of substance	Identifier	Wt%	Classification acc. to 1272/2008/EC
4-tert-butylpyrocatechol	CAS No 98-29-3  EC No 202-653-9	0.001 - 0.0015	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Skin Sens. 1 / H317 Aquatic Acute 1 / H400 Aquatic Chronic 2 / H411

## 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 case of skin irritation, consult a physician.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

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### Following ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

Severe headache, Malaise, Nausea, Vomiting, Irritation, Localised redness, oedema, pruritis and/or pain

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Combustible. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours can form explosive mixtures with air.

#### Hazardous combustion products

In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

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

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Explosive properties.

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

#### Advices on how to contain a spill

Covering of drains.

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

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

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### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 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

Provision of sufficient ventilation.

#### • Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

### 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

Ground/bond container and receiving equipment.

#### • Ventilation requirements

Use local and general ventilation.

#### • 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)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Source
AU	styrene (phenylethene) (vinylbenzene)	100-42-5		WES	50	213	100	426	WES

#### Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

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

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### Relevant DNELs/DMELs/PNECs and other threshold levels

#### • human health values

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	85 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	289 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	306 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
DNEL	406 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

#### • relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
4-tert-butylpyrocatechol	98-29-3	DNEL	1.6 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects

#### • environmental values

Endpoint	Threshold level	Environmental compartment	Exposure time
PNEC	0.028 mg/l	freshwater	short-term (single instance)
PNEC	0.014 mg/l	marine water	short-term (single instance)
PNEC	0.04 mg/l	water	intermittent release
PNEC	5 mg/l	sewage treatment plant (STP)	short-term (single instance)
PNEC	0.614 mg/kg	freshwater sediment	short-term (single instance)
PNEC	0.307 mg/kg	marine sediment	short-term (single instance)
PNEC	0.2 mg/kg	soil	short-term (single instance)

#### • relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment	Exposure time
4-tert-butylpyrocatechol	98-29-3	PNEC	1.2 µg/l	freshwater	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	0.12 µg/l	marine water	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	1.2 µg/l	water	intermittent release
4-tert-butylpyrocatechol	98-29-3	PNEC	0.16 mg/l	sewage treatment plant (STP)	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	6.9 µg/kg	freshwater sediment	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	0.69 µg/kg	marine sediment	short-term (single instance)
4-tert-butylpyrocatechol	98-29-3	PNEC	0.68 µg/kg	soil	short-term (single instance)

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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.

##### • type of material

FKM (fluoro rubber)

##### • material thickness

0,7mm.

##### • 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. P2 (filters at least 94 % of airborne particles, colour code: White). 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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid (fluid)
Colour	colourless
Odour	mild sweet
Odour threshold	No data available

#### Other physical and chemical parameters

pH (value)	This information is not available.
Melting point/freezing point	-31 °C
Initial boiling point and boiling range	145 °C at 1,013 hPa
Flash point	31 °C at 1,013 hPa
Evaporation rate	no data available
Flammability (solid, gas)	not relevant (fluid)

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### Explosive limits

• lower explosion limit (LEL)	1.2 vol% (45 g/m <sup>3</sup> )
• upper explosion limit (UEL)	8.9 vol% (350 g/m <sup>3</sup> )
Explosion limits of dust clouds	not relevant
Vapour pressure	6.67 hPa at 20 °C
Density	0.906 g/cm <sup>3</sup>
Vapour density	3.6 (air = 1)
Bulk density	Not applicable
Relative density	Information on this property is not available.

### Solubility(ies)

Water solubility 320 mg/l at 25 °C

### Partition coefficient

n-octanol/water (log KOW)	2.96 (25 °C) (ECHA)
Soil organic carbon/water (log KOC)	2.547 (ECHA)
Auto-ignition temperature	490 °C at 1,013 hPa - ECHA
Decomposition temperature	no data available

### Viscosity

• dynamic viscosity	0.696 mPa s at 25 °C
Explosive properties	Shall not be classified as explosive
Oxidising properties	none

## 9.2 Other information

Refractive index 1.546

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

risk of ignition. In case of warming: Vapours can 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.



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### 10.5 Incompatible materials

copper

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Exposure route	Endpoint	Value	Species	Source
dermal	LD50	$>2,000 \text{ mg/kg}$	rat	ECHA

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Summary of evaluation of the CMR properties

##### Reproductive toxicity:

Suspected of damaging the unborn child

##### • Specific target organ toxicity - single exposure

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

##### • Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure (if inhaled).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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

##### • If swallowed

nausea, vomiting

##### • If in eyes

slightly irritant but not relevant for classification

##### • If inhaled

vertigo, headache

##### • If on skin

irritation and significant inflammation of the skin (dermatitis) due to the defatting properties of the product may be caused by repeated or prolonged exposure, causes skin irritation

#### Other information

None

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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.

#### Aquatic toxicity (acute)

Endpoint	Value	Species	Source	Exposure time
LC50	10 mg/l	fish	ECHA	96 h
EC50	3.32 mg/l	fish	ECHA	96 h
ErC50	4.9 mg/l	algae	ECHA	72 h

#### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4-tert-butylpyrocatechol	98-29-3	LC50	0.12 mg/l	fish	96 h
4-tert-butylpyrocatechol	98-29-3	EC50	0.48 mg/l	aquatic invertebrates	48 h
4-tert-butylpyrocatechol	98-29-3	ErC50	10.17 mg/l	algae	72 h

#### Aquatic toxicity (chronic)

Endpoint	Value	Species	Source	Exposure time
EC50	1.88 mg/l	aquatic invertebrates	ECHA	21 d
LC50	>3.84 mg/l	aquatic invertebrates	ECHA	21 d
NOEC	1.01 mg/l	aquatic invertebrates	ECHA	21 d
LOEC	2.06 mg/l	aquatic invertebrates	ECHA	21 d
growth (EbCx) 20%	140 mg/l	microorganisms	ECHA	30 min

#### Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4-tert-butylpyrocatechol	98-29-3	EC50	0.94 mg/l	aquatic invertebrates	24 h

### 12.2 Process of degradability

The substance is readily biodegradable.  
Theoretical Oxygen Demand: 3.072 mg/mg  
Theoretical Carbon Dioxide: 3.38 mg/mg

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Process	Degradation rate	Time
biotic/abiotic	80 %	20 d

### Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time
4-tert-butylpyrocatechol	98-29-3	DOC removal	91 %	28 d
4-tert-butylpyrocatechol	98-29-3	carbon dioxide generation	24.7 %	28 d

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) 2.96 (25 °C)

BCF 74 (74)

### Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
4-tert-butylpyrocatechol	98-29-3		1.98 (pH value: 5.9, 25 °C)	

### 12.4 Mobility in soil

Henry's law constant 231.6 Pa m<sup>3</sup>/mol

The Organic Carbon normalised adsorption coefficient 2.547

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Data are not available.

### Endocrine disrupting potential

Name of substance	CAS No	Combined category	Human health category	Wildlife category
Styrene	100-42-5	CAT1	CAT1	CAT3

#### Legend

CAT1 Category 1 - evidence of endocrine disruption in at least one species using intact animals  
CAT3 Category 3 - no evidence of endocrine disruption or no data available

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### 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.

##### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

#### 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.

#### 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.

### SECTION 14: Transport information

14.1	UN number	2055
14.2	UN proper shipping name	STYRENE MONOMER, STABILIZED
	Hazardous ingredients	Styrene
14.3	Transport hazard class(es)	
	Class	3 (flammable liquids)
14.4	Packing group	III (substance presenting low danger)
14.5	Environmental hazards	none (non-environmentally hazardous acc. to the dangerous goods regulations)
14.6	Special precautions for user	
	Provisions for dangerous goods (ADR) should be complied within the premises.	
14.7	Transport in bulk according to Annex II of MARPOL and the IBC Code	
	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)	
	UN number	2055
	Proper shipping name	STYRENE MONOMER, STABILIZED
	Particulars in the transport document	UN2055, STYRENE MONOMER, STABILIZED, 3, III, (D/E)
	Class	3
	Classification code	F1
	Packing group	III
	Danger label(s)	3

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Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Tunnel restriction code (TRC)	D/E
Hazard identification No	39
<b>Emergency Action Code</b>	3Y
<b>• International Maritime Dangerous Goods Code (IMDG)</b>	
UN number	2055
Proper shipping name	STYRENE MONOMER, STABILIZED
Particulars in the shipper's declaration	UN2055, STYRENE MONOMER, STABILIZED, 3, III, 31°C c.c.
Class	3
Packing group	III
Danger label(s)	3



Special provisions (SP)	-
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-D
Stowage category	A

## 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)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**

Not listed.

- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**

Not listed.

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- **Regulation 850/2004/EC on persistent organic pollutants (POP)**

Not listed.

- **Restrictions according to REACH, Annex XVII**

not listed

- **List of substances subject to authorisation (REACH, Annex XIV)**

not listed

- **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
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

- **Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)**

VOC content 100 %

- **Directive on industrial emissions (VOCs, 2010/75/EU)**

VOC content 100 %

- **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**

not listed

- **Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

not listed

- **Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**

not listed

### National inventories

Substance is listed in the following national inventories:

- EINECS/ELINCS/NLP (Europe)
- REACH (Europe)

## 15.2 Chemical Safety Assessment

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

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### 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 navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning 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
BCF	BioConcentration Factor
BOD	Biochemical Oxygen Demand
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
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
COD	chemical oxygen demand
DMEL	Derived Minimal Effect Level
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 identifier 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
Eye Dam.	seriously damaging to the eye
Eye Irrit.	irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
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
log KOW	n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	corrosive to skin

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Abbr.	Descriptions of used abbreviations
Skin Irrit.	irritant to skin
Skin Sens.	skin sensitisation
STEL	short-term exposure limit
TWA	time-weighted average
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne conatminants

### Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

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

Code	Text
H226	flammable liquid and vapour
H302	harmful if swallowed
H312	harmful in contact with skin
H314	causes severe skin burns and eye damage
H315	causes skin irritation
H317	may cause an allergic skin reaction
H318	causes serious eye damage
H319	causes serious eye irritation
H332	harmful if inhaled
H361d	suspected of damaging the unborn child
H373	may cause damage to organs through prolonged or repeated exposure (if inhaled)
H400	very toxic to aquatic life
H411	toxic to aquatic life with long lasting effects

### Disclaimer

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.