## **Safety Data Sheet**

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

## **Phenoxyethanol**

Version number: 3.1 Revision: 2019-08-09
Replaces version of: 2019-05-03 (3) First version: 2011-03-22

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

#### 1.1 Product identifier

Trade name Phenoxyethanol

**Registration number (REACH)** 01-2119488943-21-0009, 01-2119488943-21-0008,

01-2119488943-21-0013

**EC number** 204-589-7

Index number in CLP Annex VI 603-098-00-9

**CAS number** 122-99-6

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

**Relevant identified uses**Chemicals for various applications

Formulation & (re)packing of substances and mix-

tures

Professional use

Manufacture of substances

Uses in coatings
Use in cleaning agents
Functional fluids

Lubricant

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

Abbeychem Limited T/A Abbey Chemicals

Victory House

245 Southtown Road Great Yarmouth

Norfolk NR31 0JJ

sales@abbeychemicals.co.uk

#### 1.4 Emergency telephone number

+44 (0) 1270 502891

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Country	Name	Telephone
	CHEMTREC International (outside USA)	1-703-527-3887

As above or next toxicological information centre.

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

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

Classification					
Section	Hazard class	Category	Hazard class and category	Hazard state- ment	
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302	
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319	

for full text of abbreviations: see SECTION 16

#### 2.2 Label elements

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

Signal word warning

**Pictograms** 

GHS07



#### **Hazard statements**

H302 Harmful if swallowed.

**H319** Causes serious eye irritation.

#### **Precautionary statements**

**P264** Wash hands thoroughly after handling.

**P270** Do not eat, drink or smoke when using this product.

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

**P301+P312** IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

**P330** Rinse mouth.

**P337+P313** If eye irritation persists: Get medical advice/attention.

**P501** Dispose of contents/container in accordance with local/regional/national/interna-

tional regulations.

#### 2.3 Other hazards

There is no additional information.

#### 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 2-phenoxyethanol

**Identifiers** 

CAS No 122-99-6

EC No 204-589-7

Index No 603-098-00-9

Molecular formula C8H10O2

Molar mass 138.2 g/<sub>mol</sub>

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

#### 4.1 Description of first aid measures

#### **General notes**

Take off immediately all contaminated clothing.

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

#### **Following inhalation**

Provide fresh air.

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

#### Following skin contact

Wash with plenty of soap and water.

#### Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Following ingestion**

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Get medical advice/attention.

#### Notes for the doctor

none

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

Harmful if swallowed.

Irritating to eyes.

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

none

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

#### 5.1 Extinguishing media

#### Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO2)

#### Unsuitable extinguishing media

water jet

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

Hazardous decomposition products: Section 10.

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

#### **Hazardous combustion products**

carbon monoxide (CO), carbon dioxide (CO2), pyrolysis products, toxic

#### 5.3 Advice for firefighters

Keep containers cool with water spray.

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.

#### Special protective equipment for firefighters

self-contained breathing apparatus (EN 133)

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

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

#### For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Do not breathe mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

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.

#### For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

#### 6.2 Environmental precautions

In case of formation of gases/vapours/mists suppress with water spray

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 clean up a spill

Collect spillage.

Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

#### **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

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

Use local and general ventilation.

Keep away from sources of ignition - No smoking.

#### Specific notes/details

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

#### Handling of incompatible substances or mixtures

#### **Keep away from**

oxidisers

#### Measures to protect the environment

Avoid release to the environment.

#### Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

Do not breathe mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

Wash hands thoroughly after handling.

## 7.2 Conditions for safe storage, including any incompatibilities

#### Flammability hazards

Keep away from sources of ignition - No smoking.

#### **Incompatible substances or mixtures**

Incompatible materials: see section 10.

Observe hints for combined storage.

#### Protect against external exposure, such as

humidity, contact with air/oxygen

#### **Consideration of other advice**

Keep away from food, drink and animal feedingstuffs.

#### **Ventilation requirements**

Provision of sufficient ventilation.

#### Specific designs for storage rooms or vessels

Store in a dry place. Store in a closed container.

Store in a well-ventilated place. Keep cool.

#### **Packaging compatibilities**

Keep only in original container.

#### 7.3 Specific end use(s)

No information available.

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

#### 8.1 Control parameters

#### **Human health values**

Relevant DNELs and other threshold levels					
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time	
DNEL	8.07 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects	

Relevant DNELs and other threshold levels					
Endpoint	Threshold	Protection goal,			

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	8.07 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
DNEL	20.83 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	2.41 mg/m³	human, inhalatory	consumer (private house- holds)	chronic - systemic effects
DNEL	2.41 mg/m³	human, inhalatory	consumer (private house- holds)	chronic - local effects
DNEL	10.42 mg/kg bw/day	human, dermal	consumer (private house- holds)	chronic - systemic effects
DNEL	9.23 mg/kg bw/ day	human, oral	consumer (private house- holds)	chronic - systemic effects
DNEL	9.23 mg/kg bw/ day	human, oral	consumer (private house- holds)	acute - systemic effects

#### **Environmental values**

## **Relevant PNECs and other threshold levels**

Endpoint	Threshold level	Environmental compartment	
PNEC	0.943 <sup>mg</sup> / <sub>l</sub>	freshwater	
PNEC	0.094 <sup>mg</sup> / <sub>l</sub>	marine water	
PNEC	24.8 <sup>mg</sup> / <sub>l</sub>	sewage treatment plant (STP)	
PNEC	7.237 <sup>mg</sup> / <sub>kg</sub>	freshwater sediment	
PNEC	0.724 <sup>mg</sup> / <sub>kg</sub>	marine sediment	
PNEC	1.26 <sup>mg</sup> / <sub>kg</sub>	soil	

#### **Exposure controls** 8.2

**Appropriate engineering controls** 

General ventilation.

Individual protection measures (personal protective equipment)

**Eye/face protection** 

Wear eye/face protection. (EN 166).

#### **Hand protection**

#### **Protective gloves**

Material	Material thickness	Breakthrough times of the glove material
CR: chloroprene (chlorobutadiene) rubber	≥ 0,5 mm	>480 minutes (permeation: level 6)
IIR: isobutene-isoprene (butyl) rubber	≥ 0,5 mm	>480 minutes (permeation: level 6)
FKM: fluoro-elastomer	≥ 0,4 mm	>480 minutes (permeation: level 6)
PVC: polyvinyl chloride	≥ 0,5 mm	>480 minutes (permeation: level 6)
NR: natural rubber, latex	≥ 0,35 mm	>120 minutes (permeation: level 4)
NBR: acrylonitrile-butadiene rubber	≥ 0,35 mm	>120 minutes (permeation: level 4)

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/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.

#### Other protection measures

Protective clothing against liquid chemicals (EN 13034, EN 14605).

#### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

#### **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

#### **Appearance**

Physical state liquid
Form oily

Colour colourless - clear

Odour weak, characteristic

Odour threshold these information are not available

#### Other safety parameters

pH (value) 7 (water: 20 <sup>g</sup>/<sub>l</sub>, 20 °C)

Melting point/freezing point 9.1 – 11.8 °C at 1,013 hPa

(OECD Guideline 102)

Initial boiling point and boiling range 244.3 °C at 1,013 hPa

(OECD Guideline 103)

Flash point 126 °C at 101.2 kPa

(EU method A.9)

Evaporation rate <0.01 (n-butyl acetate = 1)

Flammability (solid, gas) not relevant

(fluid)

**Explosive limits** 

Lower explosion limit (LEL) 1.4 vol%

Upper explosion limit (UEL) 9 vol%

Vapour pressure 0.01 hPa at 20 °C

(OECD Guideline 104)

Density  $1.11 \, {}^{\rm g}/{}_{\rm cm^3}$  at 20  ${}^{\rm o}{\rm C}$ 

(OECD Guideline 109)

Vapour density >1 (air = 1)

Relative density >1 (air = 1)

1.11 at 20 °C (water = 1)

(OECD Guideline 109)

Solubility(ies)

Water solubility 24 <sup>g</sup>/<sub>l</sub> at 20 °C

(OECD Guideline 105)

not miscible in any proportion

**Partition coefficient** 

n-octanol/water (log KOW) 1.2 (pH value: 5, 23 °C)

(EU method A.8)

Soil organic carbon/water (log KOC) 1.6

(OECD Guideline 121)

Auto-ignition temperature 475 °C at 999 hPa

(DIN 51794)

Relative self-ignition temperature for solids not relevant

(Fluid)

Decomposition temperature >350 °C

(OECD Guideline 103)

Viscosity

Kinematic viscosity 19.39 mm²/s at 25 °C

Dynamic viscosity 41 mPa s at 20 °C

19 mPa s at 40 °C (OECD Guideline 114)

Explosive properties not explosive

Oxidising properties shall not be classified as oxidising

#### 9.2 Other information

None

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

#### 10.1 Reactivity

Risk of explosion in case of drying up; may form explosive peroxides.

#### 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

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

#### 10.4 Conditions to avoid

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

#### 10.5 Incompatible materials

acids, bases, oxidisers

#### 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 toxicological effects

If not otherwise specified the classification is based on:

Animal studies; Evidence from any other toxicity tests; Expert judgement (weight of evidence determination).

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

#### **Acute toxicity**

Shall not be classified as acutely toxic (dermal).

Harmful if swallowed.

#### **Acute toxicity**

Exposure route	Endpoint	Value	Species	Method
oral	LD50	1,850 <sup>mg</sup> / <sub>kg</sub>	rat	OECD Guideline 401
dermal	LD50	>2,214 <sup>mg</sup> / <sub>kg</sub>	rabbit	

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

(ECHA, OECD Guideline 404)

#### Serious eye damage/eye irritation

Causes serious eye irritation.

(ECHA, OECD Guideline 405)

#### Respiratory or skin sensitisation

#### Skin sensitisation

Shall not be classified as a skin sensitiser.

(ECHA, OECD Guideline 406)

#### **Respiratory sensitisation**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

(ECHA, OECD Guideline 474, OECD Guideline 486)

#### Carcinogenicity

Shall not be classified as carcinogenic.

(ECHA, OECD Guideline 451)

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

(ECHA, OECD Guideline 414)

## 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).

#### **Chronic toxicity**

Exposure route	Endpoint	Value	Species	Method
oral	NOAEL	369 mg/kg bw/day	rat	OECD Guideline 408
inhalation: dust/mist	NOAEC	48.2 <sup>mg</sup> / <sub>m³</sub>	rat	OECD Guideline 412
inhalation: dust/mist	LOAEC	246 <sup>mg</sup> / <sub>m³</sub>	rat	OECD Guideline 412
dermal	NOAEL	500 mg/kg bw/day	rabbit	
dermal	LOAEL	>500 mg/kg bw/day	rabbit	

#### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

## **Aquatic toxicity (acute)**

Based on available data, the classification criteria are not met.

#### **Aquatic toxicity (acute)**

Endpoint	Value	Species	Method	Exposure time
LC50	>220 - <460 <sup>mg</sup> / <sub>I</sub>	orfe (Leuciscus idus)	DIN 38 412	96 h
LC50	344 <sup>mg</sup> / <sub>l</sub>	fathead minnow (Pimephales promelas)	ASTM guideline	96 h
ErC50	625 <sup>mg</sup> / <sub>l</sub>	algae (Desmodesmus sub- spicatus)	EU method C.3	72 h
EC50	>500 <sup>mg</sup> / <sub>l</sub>	daphnia magna	OECD Guideline 202	48 h
EbC50	443 <sup>mg</sup> / <sub>l</sub>	algae (Desmodesmus sub- spicatus)	EU method C.3	72 h

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## Aquatic toxicity (chronic)

## Aquatic toxicity (chronic)

Endpoint	Value	Species	Exposure time
NOEC	9.43 <sup>mg</sup> / <sub>l</sub>	daphnia magna	21 d
NOEC	23 <sup>mg</sup> / <sub>l</sub>	fathead minnow (pimephales pro- melas)	34 d
NOEC	70 <sup>mg</sup> / <sub>l</sub>	algae (Desmodesmus subspicatus)	72 h
LOEC	50 <sup>mg</sup> / <sub>l</sub>	fathead minnow (pimephales pro- melas)	34 d
LOEC	22.5 <sup>mg</sup> / <sub>l</sub>	daphnia magna	21 d
growth (EbCx) 10%	159 <sup>mg</sup> / <sub>l</sub>	algae (Desmodesmus subspicatus)	72 h
growth rate (ErCx) 10%	333 <sup>mg</sup> / <sub>l</sub>	algae (Desmodesmus subspicatus)	72 h

## 12.2 Persistence and degradability

## **Process of degradability**

Process	Degradation rate	Time	Method
DOC removal	99 %	28 d	OECD Guideline 301 F
carbon dioxide generation	75 %	28 d	OECD Guideline 301 F
oxygen depletion	90 %	28 d	OECD Guideline 301 F

#### **Biodegradation**

The substance is readily biodegradable.

#### **Persistence**

Data are not available.

## 12.3 Bioaccumulative potential

**n-octanol/water (log KOW)** 1.2 (pH value: 5, 23 °C)

(EU method A.8)

**BCF** 0.349

(QSAR)

12.4 Mobility in soil

Henry's law constant 0.002 Pa m³/mol

(QSAR)

**The Organic Carbon normalised adsorption** 1.6

**coefficient** (OECD Guideline 121)

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

Data are not available.

**Remarks** 

Wassergefährdungsklasse, WGK (water hazard class): 1

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Handle contaminated packages in the same way as the substance itself.

**Remarks** 

Please consider the relevant national or regional provisions.

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

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

14.2 UN proper shipping name

14.3 Transport hazard class(es) none

Class -

**14.4** Packing group not assigned to a packing group

**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 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).

Not subject to ADR, RID and ADN.

**International Maritime Dangerous Goods Code (IMDG)** 

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)

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)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)			

Name of substance	Name acc. to inventory	Type of registra- tion	Restriction	No
2-phenoxyethanol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/ EC	1907/2006/EC annex XVII	R3	3

#### Legend

- R3 1. Shall not be used in:
  - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
  - tricks and jokes,
  - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  - 2. Articles not complying with paragraph 1 shall not be placed on the market.
  - 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
  - can be used as fuel in decorative oil lamps for supply to the general public, and,
  - present an aspiration hazard and are labelled with R65 or H304,
  - 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  - 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
  - (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and in-

#### Legend

delibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage'; (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';

- (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
- 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
- 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

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

not listed

#### **Seveso Directive**

Not assigned.

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

Regulation 98/2013/EU on the marketing and use of explosives precursors

not listed

#### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

## **SECTION 16: Other information**

## Indication of changes (revised safety data sheet)

Indication of changes: Section 1, 2, 8, 11, 12, 15

## **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
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)
BCF	Bioconcentration factor
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
EbC50	≡ 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
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 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
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 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
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
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)
SVHC	Substance of Very High Concern
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 2015/830/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
H302	Harmful if swallowed.
H319	Causes serious eye irritation.

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#### 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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