Safety Data Sheet
according to US OSHA Hazard Communication Standard (29 CFR 1910.1200)

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

1.1 Product identifier

Trade name/designation

YP06-8017-0AL BergerBond ColorAdd P
RAL 8017 Schokoladenbraun

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

paint and/or paint-related material

Relevant identified uses

Reserved for industrial and professional use.

Uses advised against

Do not use for injecting or spraying.

1.3 Details of the supplier of the safety data sheet

Supplier

Berger-Seidle GmbH
Maybachstr. 2
67269 Grünstadt
Germany

Telephone: +49 6359 8005-0
E-mail: info@berger-seidle.de
Website: www.berger-seidle.de

Department responsible for information

E-mail (competent person) Sicherheitsdaten@berger-seidle.de

1.4 Emergency telephone number

Emergency telephone number: +1 872 5888271 or +11 49 700 24112112
24 hr. emergency phone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

according to US OSHA Hazard Communication Standard (29 CFR 1910.1200)

	Flam. Liq. 4	H227 Combustible liquid.
*	Carc. 2	H351 Suspected of causing cancer.

2.2 Label elements

Labeling according to US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazard pictograms

*

GHS08

Signal word

Warning

Hazard statements

H227	Combustible liquid.
H351	Suspected of causing cancer.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection/face protection.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P370 + P378	In case of fire: Use extinguishing powder or sand to extinguish.
P403	Store in a well-ventilated place.
P405	Store locked up.
P501	Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

Titanium dioxide

2.3 Hazards not otherwise classified (HNOC)

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients.

3.2 Mixtures

Description

Pigmentpaste

Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No.	weight-%
13463-67-7 236-675-5 -	**Titanium dioxide** Carc. 2 H351	10,0 < 12,5
64742-95-6 918-668-5 649-356-00-4	**Hydrocarbons, C9, aromatics** Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT SE 3 H335 / STOT SE 3 H336 / Aquatic Chronic 2 H411	8,00 < 10,0
- - -	**Salt of acidic polymer** Skin Irrit. 2 H315 / Eye Irrit. 2 H319	3,00 < 5,00
108-65-6 203-603-9 607-195-00-7	**2-methoxy-1-methylethyl acetate** Flam. Liq. 3 H226 / STOT SE 3 H336	2,00 < 2,50
54839-24-6 259-370-9 603-177-00-8	**2-ethoxy-1-methylethyl acetate** Flam. Liq. 3 H226 / STOT SE 3 H336	1,00 < 2,00
246538-78-3 920-901-0 -	**Hydrocarbons, C11-C13, isoalkanes, <2% aromatics** Asp. Tox. 1 H304	1,00 < 2,00
123-86-4 204-658-1 607-025-00-1	**N-butyl acetate** Flam. Liq. 3 H226 / STOT SE 3 H336	1,00 < 2,00
100-41-4 202-849-4 601-023-00-4	**Ethylbenzen** Flam. Liq. 2 H225 / Asp. Tox. 1 H304 / Acute Tox. 4 H332 / Carc. 2 H351 / STOT RE 2 H373	0,150 < 0,200

Remark

Full text of H-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

Following inhalation

In case of irregular breathing or respiratory arrest provide artificial respiration.Remove casualty to fresh air and keep warm and at rest.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

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

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO2), Powder, spray mist, (water)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

For cleaning up

Clean using cleansing agents. Do not use solvents.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Personal protection equipment: see section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Advices on general occupational hygiene

When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Storage class LGK10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Store in a well-ventilated and dry room at temperatures between 5 °C and 25 °C.

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	Source	Long-term /short-term (Spitzenbegrenzung)
34590-94-8	(2-methoxymethylethoxy)propanol	ACGIH	- / - (-) mg/m³
34590-94-8	(2-methoxymethylethoxy)propanol	IDLH	- / - (-) mg/m³
34590-94-8	(2-methoxymethylethoxy)propanol	NIOSH	600 / 900 (-) mg/m³ (may be absorbed through the skin)
34590-94-8	(2-methoxymethylethoxy)propanol	OSHA	600 / - (-) mg/m³ (may be absorbed through the skin)
7727-43-7	Barium sulfate	ACGIH	5 / - (-) mg/m³ (inhalable fraction)
7727-43-7	Barium sulfate	NIOSH	10 / - (-) mg/m³ (inhalable fraction)
7727-43-7	Barium sulfate	NIOSH	5 / - (-) mg/m³ (respirable fraction)
7727-43-7	Barium sulfate	OSHA	15 / - (-) mg/m³ (total dust)
7727-43-7	Barium sulfate	OSHA	5 / - (-) mg/m³ (respirable fraction)
1333-86-4	Carbon black	ACGIH	3 / - (-) mg/m³ (inhalable fraction)
1333-86-4	Carbon black	IDLH	1,750 / - (-) mg/m³
1333-86-4	Carbon black	NIOSH	3.5 / - (-) mg/m³
1333-86-4	Carbon black	NIOSH	0.1 / - (-) mg/m³ (Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs))
1333-86-4	Carbon black	OSHA	3.5 / - (-) mg/m³
100-41-4	Ethylbenzen	ACGIH	87 / - (-) mg/m³
100-41-4	Ethylbenzen	IDLH	- / - (-) mg/m³
100-41-4	Ethylbenzen	NIOSH	435 / 545 (-) mg/m³
100-41-4	Ethylbenzen	OSHA	435 / - (-) mg/m³
123-86-4	N-butyl acetate	ACGIH	- / - (-) mg/m³
123-86-4	N-butyl acetate	IDLH	- / - (-) mg/m³
123-86-4	N-butyl acetate	NIOSH	710 / 950 (-) mg/m³
123-86-4	N-butyl acetate	OSHA	710 / - (-) mg/m³
13463-67-7	Titanium dioxide	ACGIH	0.2 / - (-) mg/m³ (nanoparticle, respirable fraction)

13463-67-7	Titanium dioxide	ACGIH	2.5 / - (-) mg/m³ (Fine dust, respirable fraction)
13463-67-7	Titanium dioxide	IDLH	5,000 / - (-) mg/m³
13463-67-7	Titanium dioxide	OSHA	15 / - (-) mg/m³ (total dust)

Additional information

Long-term: Long-term occupational exposure limit value
short-term: short-term occupational exposure limit value

Biological limit values

CAS No.	Substance name	Source	Value/ Test material
100-41-4	Ethylbenzen	ACGIH-BEI	0.15 g/g creatinine / urine end of shift at end of work week

DNEL worker

CAS No.	Substance name	DNEL type	DNEL value
54839-24-6	2-ethoxy-1-methylethyl acetate	Long-term – inhalation, systemic effects	152 mg/m³
54839-24-6	2-ethoxy-1-methylethyl acetate	Long-term - dermal, systemic effects	103 mg/kg bw/day
108-65-6	2-methoxy-1-methylethyl acetate	Long-term – inhalation, systemic effects	275 mg/m³
108-65-6	2-methoxy-1-methylethyl acetate	Acute - inhalation, local effects	550 mg/m³
108-65-6	2-methoxy-1-methylethyl acetate	Long-term - dermal, systemic effects	796 mg/kg bw/day
100-41-4	Ethylbenzen	Long-term – inhalation, systemic effects	77 mg/m³
100-41-4	Ethylbenzen	Acute - inhalation, local effects	293 mg/m³
100-41-4	Ethylbenzen	Long-term - dermal, systemic effects	180 mg/kg bw/day
64742-95-6	Hydrocarbons, C9, aromatics	DNEL long-term dermal (systemic)	12.5 mg/kg
64742-95-6	Hydrocarbons, C9, aromatics	DNEL long-term inhalative (systemic)	151 mg/m³
123-86-4	N-butyl acetate	Long-term – inhalation, systemic effects	48 mg/m³
123-86-4	N-butyl acetate	Long-term - dermal, systemic effects	7 mg/kg bw/day
13463-67-7	Titanium dioxide	DNEL long-term inhalative (local)	10 mg/m³

DNEL Consumer

CAS No.	Substance name	DNEL type	DNEL value
54839-24-6	2-ethoxy-1-methylethyl acetate	Long-term – inhalation, systemic effects	181 mg/m³
54839-24-6	2-ethoxy-1-methylethyl acetate	Acute - inhalation, systemic effects	1,420
54839-24-6	2-ethoxy-1-methylethyl acetate	Long-term - dermal, systemic effects	62 mg/kg bw/day
54839-24-6	2-ethoxy-1-methylethyl acetate	Long-term - oral, systemic effects	13.1 mg/kg bw/day
108-65-6	2-methoxy-1-methylethyl acetate	Long-term – inhalation, systemic effects	33 mg/m³
108-65-6	2-methoxy-1-methylethyl acetate	Long-term – inhalation, local effects	33 mg/m³
108-65-6	2-methoxy-1-methylethyl acetate	Long-term - dermal, systemic effects	320 mg/kg bw/day
108-65-6	2-methoxy-1-methylethyl acetate	Long-term - oral, systemic	36 mg/kg bw/day

		effects	
100-41-4	Ethylbenzen	Long-term – inhalation, systemic effects	15 mg/m³
100-41-4	Ethylbenzen	Long-term - oral, systemic effects	1.6 mg/kg bw/day
64742-95-6	Hydrocarbons, C9, aromatics	DNEL long-term dermal (systemic)	7.5 mg/kg
64742-95-6	Hydrocarbons, C9, aromatics	DNEL long-term inhalative (systemic)	32 mg/m³
123-86-4	N-butyl acetate	Long-term – inhalation, systemic effects	12 mg/m³
123-86-4	N-butyl acetate	Long-term - dermal, systemic effects	3.4 mg/kg bw/day
123-86-4	N-butyl acetate	Long-term - oral, systemic effects	3.4 mg/kg bw/day

PNEC

CAS No.	Substance name	PNEC type	PNEC Value
54839-24-6	2-ethoxy-1-methylethyl acetate	aquatic, intermittent release	2 mg/L
54839-24-6	2-ethoxy-1-methylethyl acetate	aquatic, marine water	0.2 mg/L
54839-24-6	2-ethoxy-1-methylethyl acetate	sewage treatment plant	62.5 mg/L
54839-24-6	2-ethoxy-1-methylethyl acetate	sediment, freshwater	8.2 mg/kg sediment dw
54839-24-6	2-ethoxy-1-methylethyl acetate	sediment, marine water	0.82 mg/kg sediment dw
108-65-6	2-methoxy-1-methylethyl acetate	aquatic, intermittent release	6.35 mg/L
108-65-6	2-methoxy-1-methylethyl acetate	aquatic, marine water	0.064 mg/L
108-65-6	2-methoxy-1-methylethyl acetate	sewage treatment plant	100 mg/L
108-65-6	2-methoxy-1-methylethyl acetate	sediment, freshwater	3.29 mg/kg sediment dw
108-65-6	2-methoxy-1-methylethyl acetate	sediment, marine water	0.329 mg/kg sediment dw
100-41-4	Ethylbenzen	aquatic, intermittent release	0.1 mg/L
100-41-4	Ethylbenzen	aquatic, marine water	0.01 mg/L
100-41-4	Ethylbenzen	sewage treatment plant	9.6 mg/L
100-41-4	Ethylbenzen	sediment, freshwater	13.7 mg/kg sediment dw
100-41-4	Ethylbenzen	sediment, marine water	1.37 mg/kg sediment dw
123-86-4	N-butyl acetate	aquatic, intermittent release	0.36 mg/L
123-86-4	N-butyl acetate	aquatic, marine water	0.018 mg/L
123-86-4	N-butyl acetate	sewage treatment plant	35.6 mg/L
123-86-4	N-butyl acetate	sediment, freshwater	0.981 mg/kg sediment dw
123-86-4	N-butyl acetate	sediment, marine water	0.098 mg/kg sediment dw
13463-67-7	Titanium dioxide	PNEC sediment, marine water	100 mg/kg
13463-67-7	Titanium dioxide	PNEC sediment, freshwater	1,000 mg/kg
13463-67-7	Titanium dioxide	PNEC soil, freshwater	100 mg/kg
13463-67-7	Titanium dioxide	PNEC aquatic, intermittent release	0.193 mg/L
13463-67-7	Titanium dioxide	PNEC aquatic, marine water	0.018 mg/L
13463-67-7	Titanium dioxide	PNEC aquatic, freshwater	0.184 mg/L
13463-67-7	Titanium dioxide	PNEC sewage treatment plant (STP)	100 mg/L

8.2 Exposure controls

Provide good ventilation.This can be achieved with local or room suction.

Personal protection equipment

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Suitable material: NBR (Nitrile rubber)
Thickness of the glove material >= 0.4 mm
Breakthrough time >= 480 min

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. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.
Recommended glove articles: EN ISO 374

Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Eye glasses with side protection: EN 166

Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Anti-static clothing including shoes are recommended.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	brown
Odour	characteristic
pH at 20 °C	not applicable
Melting point/freezing point	not determined
Initial boiling point and boiling range	>= 124 °C
	Source: N-butyl acetate
Flash point	> 61 °C
flammability	Combustible liquid.
Lower explosion limit at 20°C	0.6 Vol-%
	Source: Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
Upper explosion limit at 20°C	14 Vol-%
	Source: (2-methoxymethylethoxy)propanol
Vapour pressure at 20°C	2.452 mbar
Relative vapour density	not applicable
Density at 20 °C	1.36 kg/l
Water solubility at 20°C	partially soluble
Partition coefficient: n-octanol/water	see section 12
Ignition temperature in °C	> 200 °C
	Source: Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
Decomposition temperature	not determined
Viscosity at 20 °C	135 mm²/s
particle characteristics	not applicable

9.2 Other information

Solid content	66.4 %
solvent content	33.7 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
LD50: dermal> 3.16 mL/kg

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory or skin sensitisation

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

Overall assessment on CMR properties

* Suspected of causing cancer.

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1 Toxicity

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

Acute (short-term) fish toxicity
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
LL50: > 1,000 mg/L (96 h)

Acute (short-term) toxicity to algae and cyanobacteria
EL50: > 1,000 mg/L (72 h)

NOELR: 1,000 mg/L (72 h)

Acute (short-term) toxicity to aquatic invertebrates
LL50: > 1,000 mg/L (96 h)

NOELR: 1,000 mg/L (96 h)

Chronic (long-term) fish toxicity
(Oncorhynchus mykiss (Rainbow trout)):

Chronic (long-term) toxicity to aquatic invertebrate
NOELR: (Daphnia magna (Big water flea)): 1 mg/L (21 d)

12.2 Persistence and degradability

2-ethoxy-1-methylethyl acetate
Biodegradation = 100 % (28 d)

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics
Biodegradation = 31.3 % (28 d)

12.3 Bioaccumulative potential

* **Ethylbenzen**
Bioconcentration factor (BCF) = 29

N-butyl acetate
* Partition coefficient: n-octanol/water = 1.81
Partition coefficient: n-octanol/water = 3.15 (Ethylbenzen)

Partition coefficient: n-octanol/water = 0.43 (2-methoxy-1-methylethyl acetate)

Partition coefficient: n-octanol/water >= 1.99 (Hydrocarbons, C11-C13, isoalkanes, <2% aromatics)

Partition coefficient: n-octanol/water = 1.85 (N-butyl acetate)

* Partition coefficient: n-octanol/water = 0.76 (2-ethoxy-1-methylethyl acetate)

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way.

Waste codes/waste designations according to EWC/AVV

080111* - Waste paint and varnish containing organic solvents or other dangerous substances
* Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number or ID number

not applicable

14.2 UN proper shipping name

Land transport (US DoT 49 CFR)

No dangerous good in sense of these transport regulations.

Sea transport (IMDG)

No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

not applicable

14.4 Packing group

not applicable

14.5 Environmental hazards

Land transport (US DoT 49 CFR)	not applicable
Sea transport (IMDG)	not applicable

14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

14.8 Additional information

Land transport (US DoT 49 CFR)

not applicable

Sea transport (IMDG)

not applicable

Air transport (ICAO-TI / IATA-DGR)

not applicable

SECTION 15: Regulatory information

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

National regulations

Observe in addition any national regulations!

SARA Title III Section 311/312 Hazard Categories:
Refer to section 2 of the safety data sheet.
This product contains max. 457 g/l g/l VOC (according to ASTM D2369).

SECTION 16: Other information

List of relevant hazard statements and/or precautionary statements from sections 2 to 15

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H373	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H411	Toxic to aquatic life with long lasting effects.

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
BLV: Biological limit values

CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic and Reprotoxic
DIN: German Institute for Standardization / German industrial standard
DNEL: Derived No-Effect Level
EAKV: European Waste Catalogue Directive
EC: Effective Concentration
EC: European Community
EN: European Standard
EU/EEA: European Economic Area
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
LC: Lethal Concentration
LD: Lethal Dose
:
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD: Organisation for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent and very bioaccumulative

Indication of changes

* Data changed compared with the previous version.