

**SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006**

**Hydrogen peroxide solution >0.1 - <5%**

Version 1.0

Print Date 2018/10/02

Revision date / valid from 2018/10/02

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

**1.1. Product identifier**

Trade name : Hydrogen peroxide solution >0.1 - <5%  
Substance name : hydrogen peroxide solution  
Index-No. : 008-003-00-9  
CAS-No. : 7722-84-1  
EC-No. : 231-765-0  
EU REACH-Reg. No. : 01-2119485845-22-xxxx

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

Use of the Substance/Mixture : industrial use  
Uses advised against : At this moment we have not identified any uses advised against

**1.3. Details of the supplier of the safety data sheet**

Company : Express Chems  
Unit 27, 3 Campsie Rd, Kirkintilloch, Glasgow G66 1SL  
info@expresschems.co.uk  
+44 141 776 5666

**1.4. Emergency telephone number**

Emergency telephone number : Emergency only telephone number (open 24 hours):  
+44 (0) 1865 407333 (N.C.E.C. Culham)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

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

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

**Most important adverse effects**

Human Health : See section 11 for toxicological information.

Physical and chemical hazards : See section 9/10 for physicochemical information.  
Potential environmental effects : See section 12 for environmental information.

## 2.2. Label elements

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

The product is not labeled as dangerous according to Regulation (EC) No. 1272/2008.

### Additional Labelling:

Handle in accordance with good industrial hygiene and safety practice.  
EUH210 Safety data sheet available on request.

## 2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Chemical nature : Aqueous solution

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
<b>hydrogen peroxide solution</b>			
Index-No. : 008-003-00-9	>= 0.1 - < 5	Ox. Liq.1	H271
CAS-No. : 7722-84-1		Acute Tox.4	H332
EC-No. : 231-765-0		Acute Tox.4	H302
EU REACH- : 01-2119485845-22-xxxx		Skin Corr.1A	H314
Reg. No.		Eye Dam.1	H318
		STOT SE3	H335
	Aquatic Chronic3	H412	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General advice : Take off all contaminated clothing immediately. If symptoms call a physician.

If inhaled : Remove to fresh air. If symptoms persist, call a physician.

- In case of skin contact : Wash off with soap and water. If skin irritation persists, call a physician.
- In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

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

- Symptoms : See Section 11 for more detailed information on health effects and symptoms.
- Effects : Health injuries are not known or expected under normal use. See Section 11 for more detailed information on health effects and symptoms.

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

- Treatment : Treat symptomatically.

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

#### **5.1. Extinguishing media**

- Suitable extinguishing media : water spray
- Unsuitable extinguishing media : High volume water jet

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

- Specific hazards during firefighting : The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **5.3. Advice for firefighters**

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Choose protective equipment according to size of fire.
- Further advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Cool closed containers exposed to fire with water spray.

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

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

Personal precautions : Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours or spray mist.

#### **6.2. Environmental precautions**

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

#### **6.3. Methods and materials for containment and cleaning up**

Methods and materials for containment and cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal. Do not keep the container sealed.

Further information : Treat recovered material as described in the section "Disposal considerations".

#### **6.4. Reference to other sections**

See Section 1 for emergency contact information.  
See Section 8 for information on personal protective equipment.  
See Section 13 for waste treatment information.

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

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

Advice on safe handling : Keep container firmly closed but do not keep it gas-tight. To this a packaging with ventilation cap is to be used. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

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

Requirements for storage areas and containers : Store in original container. Keep away from direct sunlight.

Advice on protection against fire and explosion : The product is not flammable. Normal measures for preventive fire protection.

Further information on storage conditions : Do not keep the container sealed. Keep in a dry place. Store in cool place.

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Keep away from combustible material.

Suitable packaging materials : Stainless steel, PTFE, polyethylene

Unsuitable packaging materials : , Copper, Aluminium, Zinc, Iron

### 7.3. Specific end use(s)

Specific use(s) : No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Component:	hydrogen peroxide solution	CAS-No. 7722-84-1
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#### Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL Workers, Acute - local effects, Inhalation	: 3 mg/m3
DNEL Workers, Long-term - local effects, Inhalation	: 1.4 mg/m3
DNEL Consumers, Acute - local effects, Inhalation	: 1.93 mg/m3
DNEL Consumers, Long-term - local effects, Inhalation	: 0.21 mg/m3

#### Predicted No Effect Concentration (PNEC)

Fresh water	: 0.0126 mg/l
Marine water	: 0.0126 mg/l
Intermittent releases	: 0.0138 mg/l
Sewage treatment plant (STP)	: 4.66 mg/l
Fresh water sediment	: 0.047 mg/kg dry weight (d.w.)
Marine sediment	: 0.047 mg/kg dry weight (d.w.)
Soil	: 0.0023 mg/kg dry weight (d.w.)

### Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), Short Term Exposure Limit (STEL):  
2 ppm, 2.8 mg/m<sup>3</sup>

UK. EH40 Workplace Exposure Limits (WELs), Time Weighted Average (TWA):  
1 ppm, 1.4 mg/m<sup>3</sup>

ELV (IE), Time Weighted Average (TWA):  
1 ppm, 1.5 mg/m<sup>3</sup>

ELV (IE), Short Term Exposure Limit (STEL):  
2 ppm, 3 mg/m<sup>3</sup>

## 8.2. Exposure controls

### Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

### Personal protective equipment

#### *Respiratory protection*

Advice : Required, if exposure limit is exceeded (e.g. OEL).  
Respiratory protection complying with EN 141.  
Recommended Filter type:  
Combination filter: B-P2

#### *Hand protection*

Advice : Protective gloves complying with EN 374.  
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.  
Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.  
Protective gloves should be replaced at first signs of wear.

Material : Natural Rubber  
Break through time : >= 8 h  
Glove thickness : 0.5 mm

Material : polychloroprene  
Break through time : >= 8 h  
Glove thickness : 0.5 mm

Material : Nitrile rubber  
Break through time : >= 8 h  
Glove thickness : 0.35 mm

Material : butyl-rubber  
Break through time : >= 8 h  
Glove thickness : 0.5 mm

Material : Fluorinated rubber  
Break through time : >= 8 h  
Glove thickness : 0.4 mm

Material : Polyvinylchloride  
Break through time : >= 8 h  
Glove thickness : 0.5 mm

*Eye protection*

Advice : Goggles giving complete protection to the eyes

*Skin and body protection*

Advice : Protective work clothing

**Environmental exposure controls**

General advice : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
If material reaches soil inform authorities responsible for such cases.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Form : liquid  
Colour : colourless  
Odour : odourless  
Odour Threshold : Not applicable  
pH : 2 - 3 ( 20 °C)  
Freezing point/range : ca. 0 °C  
Boiling point/boiling range : ca. 100 °C

Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 1.003 g/cm <sup>3</sup> (20 °C) 1% solution 1.017 g/cm <sup>3</sup> (20 °C) 5% solution
Water solubility	: completely miscible
Partition coefficient: n-octanol/water	: log Kow -1.57 (20 °C) (calculated)
Auto-ignition temperature	: Not applicable
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Explosivity	: Product is not explosive.
Oxidizing properties	: Oxidizing agents

## 9.2. Other information

Molecular weight	: 34.01 g/mol
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Advice	: No decomposition if stored and applied as directed.
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### 10.2. Chemical stability

Advice	: Stable under recommended storage conditions.
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### 10.3. Possibility of hazardous reactions

Hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
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### 10.4. Conditions to avoid

Conditions to avoid	: Heat, flames and sparks. Keep away from direct sunlight. Generation of gas from decomposition causes
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pressure in closed systems

**10.5. Incompatible materials**

Materials to avoid : Keep away from combustible material. Organic materials, Keep away from strong oxidizing agents and strong reducing agents.

**10.6. Hazardous decomposition products**

Hazardous decomposition products : Oxygen

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Data for the product**

**Acute toxicity**

**Oral**

Acute toxicity estimate : > 2000 mg/kg ) (Calculation method)Not classified based on the calculation method according to CLP regulation.

**Inhalation**

Acute toxicity estimate : > 5 mg/l (4 h; dust/mist) (Calculation method)Not classified based on the calculation method according to CLP regulation.

**Dermal**

Acute toxicity estimate : > 2000 mg/kg ) Not classified based on the calculation method according to CLP regulation.

**Irritation**

**Skin**

Result : Not classified based on the calculation method according to CLP regulation.

**Eyes**

Result : Not classified based on the calculation method according to CLP regulation.

**Sensitisation**

Result : Not classified based on the calculation method according to CLP regulation.

**CMR effects**

**CMR Properties**

Carcinogenicity : Not classified based on the calculation method according to CLP regulation.

Mutagenicity	:	Not classified based on the calculation method according to CLP regulation.
Teratogenicity	:	Not classified based on the calculation method according to CLP regulation.
Reproductive toxicity	:	Not classified based on the calculation method according to CLP regulation.

**Specific Target Organ Toxicity**

**Single exposure**

Remarks	:	Not classified based on the calculation method according to CLP regulation.
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**Repeated exposure**

Remarks	:	Not classified based on the calculation method according to CLP regulation.
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**Other toxic properties**

**Repeated dose toxicity**

no data available

**Aspiration hazard**

Not applicable,

<b>Component:</b>	<b>hydrogen peroxide solution</b>	<b>CAS-No. 7722-84-1</b>
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**Acute toxicity**

**Oral**

LD50 Oral	:	418 mg/kg (Rat, male) (US-EPA method)The toxicological value for the pure substance was calculated on basis of a value for an aqueous solution.
LD50 Oral	:	445 mg/kg (Rat, female) (US-EPA method)The toxicological value for the pure substance was calculated on basis of a value for an aqueous solution.
LD50 Oral	:	431 mg/kg (Rat, male and female) (US-EPA method)The toxicological value for the pure substance was calculated on basis of a value for an aqueous solution.

**Inhalation**

No valid data available.

**Dermal**

LD50	:	> 2000 mg/kg (Rabbit) The toxicological value for the pure substance was calculated on basis of a value for an aqueous solution.
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**Irritation**

**Skin**

Result : corrosive effects (Rabbit)

**Eyes**

Result : Causes serious eye damage. (Rabbit)

**Sensitisation**

Result : not sensitizing (Magnusson & Kligman; Guinea pig)

**CMR effects**

**CMR Properties**

Carcinogenicity : Not classified due to inconclusive data.  
 Mutagenicity : In vitro tests showed mutagenic effects  
 In vivo tests did not show mutagenic effects  
 Teratogenicity : no data available  
 Reproductive toxicity : Not classified due to lack of data.

**Genotoxicity in vitro**

Result : positive (Chromosome aberration test in vitro; In vitro gene mutation study in mammalian cells; no) (OECD Test Guideline 473)  
 positive (In vitro gene mutation study in mammalian cells; no) (OECD Test Guideline 476)  
 Positive as well as negative results were obtained. (Mutagenicity (Escherichia coli - reverse mutation assay); with and without metabolic activation)

**Genotoxicity in vivo**

Result : negative (In vivo micronucleus test; Mouse) (Test substance: Hydrogen peroxide solution (35%); intraperitoneal; ) (OECD Test Guideline 474)

**Specific Target Organ Toxicity**

**Single exposure**

Inhalation : Target Organs: Respiratory system May cause respiratory irritation.

**Repeated exposure**

Remarks : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Other toxic properties**

**Repeated dose toxicity**

NOEL : 37 mg/kg  
(Mouse, female; Test substance: Hydrogen peroxide solution (35%)(Oral; 90 d; Subsequent observation period 6 weeks) (OECD Test Guideline 408)Target Organs: Blood; Symptoms: Depression of body weight, Irritation, Gastrointestinal tract

NOEL : 26 mg/kg  
(Mouse, male; Test substance: Hydrogen peroxide solution (35%)(Oral; 90 d; Subsequent observation period 6 weeks) (OECD Test Guideline 408)Target Organs: Blood; Symptoms: Depression of body weight, Irritation, Gastrointestinal tract

**Aspiration hazard**

No aspiration toxicity classification,

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Component:** hydrogen peroxide solution **CAS-No.** 7722-84-1

**Acute toxicity**

**Fish**

LC50 : 16.4 mg/l (Pimephales promelas; 96 h) (semi-static test)

**Toxicity to daphnia and other aquatic invertebrates**

EC50 : 2.4 mg/l (Daphnia pulex (Water flea); 48 h) (semi-static test)

**algae**

NOEC : 0.63 mg/l (Skeletonema costatum (marine diatom); 72 h) (static test; End point: Growth rate)

ErC50 : 1.38 mg/l (Skeletonema costatum (marine diatom); 72 h) (End point: Growth rate)

**Bacteria**

EC50 : > 1000 mg/l (activated sludge; 3 h) (static test; OECD Test Guideline 209)  
 EC50 466 mg/l (activated sludge; 30 min) (OECD Test Guideline 209)

**Chronic toxicity**

**Aquatic invertebrates**

NOEC 0.63 mg/l (Daphnia magna (Water flea); 21 d)

**12.2. Persistence and degradability**

**Component:** hydrogen peroxide solution **CAS-No. 7722-84-1**

**Persistence and degradability**

**Persistence**

Result : (Related to: Air) The product can be degraded by abiotic (e.g. chemical or photolytic) processes.  
 Decomposition under release of oxygen.

**Biodegradability**

Result : 100 % (Related to: O2 consumption; Test substance: 30% solution)(OECD)Readily biodegradable.

**12.3. Bioaccumulative potential**

**Component:** hydrogen peroxide solution **CAS-No. 7722-84-1**

**Bioaccumulation**

Result : log Kow -1.57 (20 °C)  
 : Does not bioaccumulate.

**12.4. Mobility in soil**

**Component:** hydrogen peroxide solution **CAS-No. 7722-84-1**

**Mobility**

Water : The product is mobile in water environment.  
 Soil : Not expected to adsorb on soil.

Air : not volatile

#### 12.5. Results of PBT and vPvB assessment

<b>Component:</b>	<b>hydrogen peroxide solution</b>	<b>CAS-No. 7722-84-1</b>
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#### **Results of PBT and vPvB assessment**

Result : The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

#### 12.6. Other adverse effects

<b>Component:</b>	<b>hydrogen peroxide solution</b>	<b>CAS-No. 7722-84-1</b>
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#### **Adsorbed organic bound halogens (AOX)**

Result : Product does not contain any organic halogens.

#### **Additional ecological information**

Result : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
- Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. If recycling is not practicable, dispose of in compliance with local regulations.
- European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

### SECTION 14: Transport information

Not dangerous goods for ADR, RID, IMDG and IATA.

#### 14.1. UN number

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

Not applicable.

**14.4. Packaging group**

Not applicable.

**14.5. Environmental hazards**

Not applicable.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

IMDG : Not applicable.

**SECTION 15: Regulatory information**

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

**Data for the product**

EU. REACH, Annex XVII, : ; The substance/mixture does not fall under this legislation.  
Marketing and Use  
Restrictions (Regulation  
1907/2006/EC)

EU. Directive : ; The substance/mixture does not fall under this legislation.  
2012/18/EU (SEVESO  
III) Annex I

**Component: hydrogen peroxide solution CAS-No. 7722-84-1**

EU. Regulation EU No. : ; The substance/mixture does not fall under this legislation.  
649/2012 concerning the  
export and import of  
dangerous chemicals

EU. Annexes I and II, : Limit: 12 % w/w; Annex I: Substances which shall not be made  
Regulation 98/2013/EU available to members of the general public on their own, or in  
on the Marketing and mixtures or substances including them, except if the  
Use of Explosives concentration is equal to or lower than the limit values set out.;

Precursors Listed  
 Combined Nomenclature (CN) Number(s): 3824 90 97;  
 Combined Nomenclature (CN) code for a mixture without  
 constituents; Listed  
 Combined Nomenclature (CN) Number(s): 2847 00 00;  
 Combined Nomenclature (CN) code for a separate chemically  
 defined compound; Listed

EU. Regulation No : EC Number: , 231-765-0; Listed  
 1451/2007 [Biocides],  
 Annex I, OJ (L 325)

EU. Regulation No. : Maximum concentration in ready for use preparation: 6 %;  
 1223/2009 on cosmetic : Tooth whitening or bleaching products; See the text of the  
 products, Annex III: List regulation for applicable exceptions or provisions.  
 of Restricted Substances  
 in Cosmetic Products  
 Maximum concentration in ready for use preparation: 0.1 %;  
 Oral products (including mouth rinse, tooth paste and tooth  
 whitening or bleaching products); See the text of the regulation  
 for applicable exceptions or provisions.  
 Maximum concentration in ready for use preparation: 4 %; Skin  
 products; See the text of the regulation for applicable  
 exceptions or provisions.  
 Maximum concentration in ready for use preparation: 2 %;  
 Cosmetic products for eyelashes; See the text of the regulation  
 for applicable exceptions or provisions.  
 Maximum concentration in ready for use preparation: 12 %;  
 Hair products; See the text of the regulation for applicable  
 exceptions or provisions.  
 Maximum concentration in ready for use preparation: 2 %;  
 Products for hardening nails; See the text of the regulation for  
 applicable exceptions or provisions.

WGK (DE) : WGK 1: slightly hazardous to water: 288

**Notification status  
 hydrogen peroxide solution:**

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
EINECS	YES	231-765-0
ENCS (JP)	YES	(1)-419
IECSC	YES	
ISHL (JP)	YES	(1)-419
KECI (KR)	YES	97-1-2
KECI (KR)	YES	KE-20204



NZIOC	YES	HSR001326
NZIOC	YES	HSR001450
NZIOC	YES	HSR001449
PHARM (JP)	YES	
PICCS (PH)	YES	
TSCA	YES	

## 15.2. Chemical safety assessment

no data available

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

H271	May cause fire or explosion; strong oxidizer.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

### Abbreviations and Acronyms

<b>BCF</b>	bioconcentration factor
<b>BOD</b>	biochemical oxygen demand
<b>CAS</b>	Chemical Abstracts Service
<b>CLP</b>	Classification, Labelling and Packaging
<b>CMR</b>	carcinogenic, mutagenic or toxic to reproduction
<b>COD</b>	chemical oxygen demand
<b>DNEL</b>	derived no-effect level
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>ELINCS</b>	European List of Notified Chemical Substances
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals
<b>LC50</b>	median lethal concentration
<b>LOAEC</b>	lowest observed adverse effect concentration
<b>LOAEL</b>	lowest observed adverse effect level
<b>LOEL</b>	lowest observed effect level
<b>NLP</b>	no-longer polymer
<b>NOAEC</b>	no observed adverse effect concentration
<b>NOAEL</b>	no observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>OECD</b>	Organisation for Economic Cooperation and Development

<b>OEL</b>	occupational exposure limit
<b>PBT</b>	persistent, bioaccumulative and toxic
<b>REACH Auth. No.:</b>	REACH Authorisation Number
<b>REACH AppC. No.:</b>	REACH Application Consultation Number
<b>PNEC</b>	predicted no-effect concentration
<b>STOT</b>	specific target organ toxicity
<b>SVHC</b>	substance of very high concern
<b>UVCB</b>	substance of unknown or variable composition, complex reaction products or biological materials
<b>vPvB</b>	very persistent and very bioaccumulative

**Further information**

- Key literature references and sources for data : Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
- Methods used for product classification : The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
- Hints for trainings : The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
- Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.  
The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.