

Safety Data Sheet

Secodes Aktiv

Safety Data Sheet dated 04/12/2022 version 14

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

1.1. Product identifier

Trade name: Secodes Aktiv

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

Recommended use: DETERGENT

FOR PROFESSIONAL USE

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company:

ESSECO S.r.l. Via San Cassiano 99

28069 - Trecate (NO)

Italy

Enartis - Phone n. +39-0321-790300

Competent person responsible for the safety data sheet: vino@enartis.it

1.4. Emergency telephone number

Enartis - Phone n. +39-0321-790300

Malta: 112

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Acute Tox. 4	Harmful if swallowed.
Skin Corr. 1A	Causes severe skin burns and eye damage.
Eye Dam. 1	Causes serious eye damage.
STOT SE 3	May cause respiratory irritation.
Aquatic Chronic 1	Very toxic to aquatic life with long lasting effects.
Ox. Liq. 2	May intensify fire; oxidiser.
Acute Tox. 4	Harmful in contact with skin.
Acute Tox. 4	Harmful if inhaled.
Met. Corr. 1	May be corrosive to metals.
Org. Perox. G	
Aquatic Acute 1	Very toxic to aquatic life.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Pictograms and Signal Words



Danger

Hazard statements

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.

H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P220 Keep away from clothing and other combustible materials.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves and protective clothing and eye protection and face protection.
P301+P330+P333 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
1
P310 Immediately call a doctor.
P370+P378 In case of fire, use a CO2 fire extinguisher to extinguish.
P390 Absorb spillage to prevent material damage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH071 Corrosive to the respiratory tract.

Contains

peracetic acid

Hydrogen Peroxide

Acetic Acid

Special provisions according to Annex XVII of REACH and subsequent amendments:
None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: Secodes Aktiv

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥ 20 - < 25 %	Hydrogen Peroxide	CAS:7722-84-1 EC:231-765-0 Index:008-003-00-9	Eye Dam. 1, H318; Aquatic Chronic 3, H412; STOT SE 3, H335; Acute Tox. 4, H302; Acute Tox. 4, H332; Ox. Liq. 1, H271; Skin Corr. 1A, H314	01-2119485845-22-XXXX
≥ 7 - < 10 %	Acetic Acid	CAS:64-19-7 EC:200-580-7 Index:607-002-00-6	Flam. Liq. 3, H226; Skin Corr. 1A, H314	01-2119475328-30-XXXX
≥ 3 - < 5 %	peracetic acid	CAS:79-21-0 EC:201-186-8 Index:607-094-00-8	Flam. Liq. 3, H226; Met. Corr. 1, H290; Acute Tox. 3, H301; Acute Tox. 4, H312; Eye Dam. 1, H318; Acute Tox. 3, H331; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; STOT SE 3, H335; Org. Perox. D, H242; Skin Corr. 1A, H314	01-2119531330-56-XXXX

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash immediately with water.

Wash thoroughly the body (shower or bath).

OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and hazard labelling.

Give nothing to eat or drink.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

If breathing is irregular or stopped, administer artificial respiration.

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

Eye damages

Skin Irritation

Erythema

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Foaming

In case of fire, use a CO₂ fire extinguisher to extinguish.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Wear suitable protective clothing (helmet, protective clothings, goggles, fire resistant gloves, boots) and protect respiratory organs (self contained breathing apparatus).

Use suitable breathing apparatus .

Move undamaged containers from immediate hazard area if it can be done safely.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Dispose of the collected material in accordance with the current regulations.

Wash with plenty of water.

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Always keep in a well ventilated place.

Incompatible materials:

Store product in original container. Store away from incompatible materials such as decomposition catalysts, metal salts, alkalis, reducing agents, metals.

Keep away from combustible materials.

Instructions as regards storage premises:

Adequately ventilated premises.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Store at temperatures not exceeding 30 °C

Cool and adequately ventilated.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Notes
Hydrogen Peroxide CAS: 7722-84-1	MAK	0.710	0.500			DFG considers hydrogen peroxide carcinogenic category 4
	ACGIH		1.000			A3 - Eye, URT, and skin irr
Acetic Acid CAS: 64-19-7	EU	25	10	50.000	20.000	
	ACGIH		10		15.000	URT and eye irr, pulm func
peracetic acid CAS: 79-21-0	ACGIH				0.4	(IFV), A4 - URT, eye, and skin irr

Predicted No Effect Concentration (PNEC) values

	PNEC Limit	Exposure Route	Exposure Frequency	Remark
Hydrogen Peroxide CAS: 7722-84-1	0.047 mg/l	Freshwater sediments		
	0.47 mg/l	Marine water sediments		
	0.013 mg/l	Fresh Water		
	0.013 mg/l	Marine water		
	0.002 mg/kg	Soil		
Acetic Acid CAS: 64-19-7	0.306 mg/l	Marine water		
	3.058 mg/l	Fresh Water		
	11.36 mg/kg	Freshwater sediments		
peracetic acid CAS: 79-21-0	1.136 mg/kg	Marine water sediments		
	0.094 ppb	Fresh Water		
	0.094 ppb	Marine water		

Derived No Effect Level (DNEL) values

	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
Hydrogen Peroxide CAS: 7722-84-1		3 mg/m ³	1.93 mg/m ³	Human Inhalation		Short Term, local effects
		1.4 mg/m ³	0.21 mg/m ³	Human Inhalation		Long Term, local effects
Acetic Acid CAS: 64-19-7		25 mg/m ³	25 mg/m ³	Human Inhalation		Long Term, local effects
		25 mg/m ³	25 mg/m ³	Human Inhalation		Short Term, local effects
peracetic acid CAS: 79-21-0		0.6 mg/m ³		Human Inhalation		Long Term, systemic effects
		0.6 mg/m ³		Human Inhalation		Long Term, local effects
		0.6 mg/m ³		Human Inhalation		Short Term, systemic effects
		0.6 mg/m ³		Human Inhalation		Short Term, local effects

8.2. Exposure controls

Individual protection measures:

Personal protective equipment selections vary based on potential exposure conditions and working conditions.

The final choice of protective equipment will depend upon a risk assessment.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Please see both sections 5 and 6 for information about personal protective equipment to be worn in an emergency (e.g.: fire or unintentional release of the substance).

Eye protection:

Chemical risk goggles (with side protection).

Technical reference standard: UNI EN 166

Protection for skin:

Wear chemical resistant clothing.

Technical reference standard: UNI EN 13034

Wear chemical resistant safety shoes.

Technical reference standard: UNI EN 20345

Protection for hands:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Glove suitability and breakthrough time will differ depending on the specific use conditions.

Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions.

Use protective gloves that provides comprehensive protection.

NBR (nitrile rubber) (Recommended thickness of the material: 0.4 mm; Permeation time: > 480 min)

UNI EN 420/UNI EN 374

Respiratory protection:

Depending on the potential for exposure, select respiratory protective equipment suitable for the specific conditions of use and in compliance with current legislation.

Half-face mask with combined filter

Mask with filter "P", white colour

Technical reference standard: UNI EN 149

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Color: N.A.

Odour: Characteristic
pH: ± 2 (sol 10g/L)
Kinematic viscosity: N.A.
Melting point / freezing point: $-26^{\circ}\text{C} / -30^{\circ}\text{C}$
Initial boiling point and boiling range: $\pm 100^{\circ}\text{C}$
Flash point: N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour density: 214 Pa a 20°C
Vapour pressure: N.A.
Relative density: 1.110 g/mL - 1.115 g/mL
Solubility in water: 100%
Solubility in oil: 0%
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Flammability: N.A.
Volatile Organic compounds - VOCs = N.A.

Particle characteristics:

Particle size: N.A. (Does not apply to liquid.)

9.2. Other information

Miscibility: N.A.
Conductivity: N.A.
Evaporation rate: N.A.
No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Danger of decomposition exothermic in case of thermal effect to oxygen development. The product is an oxidizer.
The product can react quickly if mixed with incompatible or heated chemicals. Avoid contact with reducing agents and combustible substances, strong acids and strong bases with release of heat. Keep away from chlorine and sulfite products.
Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

The product can decompose rapidly if mixed with incompatible or heated chemicals. Do not mix directly with metal salts, accelerators, acids and alkalis, especially if concentrated, reducing products and organic and flammable substances. The oxygen that develops during decomposition, in case of fire, can promote the combustion of flammable substances. Decomposition under the effect of heat. It can facilitate the ignition of combustible materials. If attacked by fire, it will support combustion.

10.4. Conditions to avoid

Avoid heating.
Heat

10.5. Incompatible materials

Light metals and flammable materials.
See also section 7.

It can give rise to violent reactions when in contact with strong oxidizing agents, strong reducing agents, acids, bases, amines, transition metal salts, sulfur compounds, rust, ash, organic powders (risk of self-accelerating exothermic decomposition), combustible materials. strong bases, strong reducing agents, metals, metal salts. Keep away from products containing chlorine-based bleaches or sulphites. It can give rise to explosive reactions when in contact with acetic anhydride.

Avoid contact with combustible materials: the product may explode.

10.6. Hazardous decomposition products

Oxygen, acetic acid, corrosive gases and vapors, carbon dioxide and carbon monoxide.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	The product is classified: Acute Tox. 4(H302), Acute Tox. 4(H312), Acute Tox. 4(H332)
b) skin corrosion/irritation	The product is classified: Skin Corr. 1A(H314)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified

		Based on available data, the classification criteria are not met
f) carcinogenicity		Not classified
		Based on available data, the classification criteria are not met
g) reproductive toxicity		Not classified
		Based on available data, the classification criteria are not met
h) STOT-single exposure		The product is classified: STOT SE 3(H335)
i) STOT-repeated exposure		Not classified
		Based on available data, the classification criteria are not met
j) aspiration hazard		Not classified
		Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Hydrogen Peroxide	a) acute toxicity	LD50 Oral Rat = 1026 mg/kg	Male
		LC50 Inhalation Rat > 170 ppm 4h	
		LD50 Skin Rabbit > 2000 mg/kg	
		LD50 Oral Rat > 693.7 ml/Kg	Female
	i) STOT-repeated exposure	NOAEL Oral Mouse = 100 ppm	90 gg
		NOAEL Inhalation Rat = 2 ppm	28 gg
Acetic Acid	a) acute toxicity	LC50 Inhalation Rat > 16000 ppm 4h	
		LD50 Oral Rat = 3530 mg/kg	
		LD50 Oral Mouse = 4960 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Skin Rat Positive	
		Respiratory Tract Irritant Inhalation Positive	
	c) serious eye damage/irritation	Eye Irritant Rabbit Positive	
peracetic acid	a) acute toxicity	LD50 Oral = 500 mg/kg	
		LD50 Inhalation = 11 mg/l	
		LD50 Skin = 1100 mg/kg	
	b) skin corrosion/irritation	Skin Corrosive Skin Positive	
		Eye Corrosive Positive	Irreversible effects on eye
	e) germ cell mutagenicity	Mutagenesis Negative	
	g) reproductive toxicity	NOAEL Oral Rat = 12.5 mg/kg	14 days
NOAEL Oral Rat = 30.4 mg/kg		14 days F1	
h) STOT-single exposure	Respiratory Tract Irritant Inhalation Positive	Intoxicant for a specif targ Cat. 3	

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Very toxic to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 1(H410), Aquatic Acute 1(H400)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Hydrogen Peroxide	CAS: 7722-84-1 - EINECS: 231-765-0 - INDEX:	a) Aquatic acute toxicity : LC50 Fish = 16.4 mg/l 96h - „Short term effects (Pimephales promelas) - (EU,2003)

		a) Aquatic acute toxicity : LC50 Daphnia = 2.4 mg/l 48h - ,,Short term effects (Daphnia pulex) - (EU,2003)
		a) Aquatic acute toxicity : EC50 Algae = 2.5 mg/l 72h - ,,Short term effects (Chlorella vulgaris) - (EU,2003)
		a) Aquatic acute toxicity : EC50 Algae = 1.38 mg/l 72h - ,,Short term effects (Skeletonema costatum, diatomea marina) - (TG OECD 201) (EU, 2003)
		a) Aquatic acute toxicity : EC50 Bacteria = 11 mg/l 16h-18h - Short term effects (Pseudomonas putida)
		a) Aquatic acute toxicity : NOEC Daphnia = 0.63 mg/l 504h - ,,Long term effects (Schmidt et al., 2006)
		a) Aquatic acute toxicity : NOEC Algae = 0.1 mg/l 72h - ,,Long term effects (Chlorella vulgaris) - (EU, 2003)
		a) Aquatic acute toxicity : NOEC Algae = 0.63 mg/l 72h - ,,Long term effects (TG OECD 201) (EU,2003) (Skeletonema costatum, diatomea marina)
Acetic Acid	CAS: 64-19-7 - EINECS: 200-580-7 - INDEX: 607-002-00-6	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/l 96h - (OECD Test Guideline 203)
		a) Aquatic acute toxicity : EC50 Daphnia > 300.82 mg/l 48h - (OECD Test Guideline 202)
peracetic acid	CAS: 79-21-0 - EINECS: 201-186-8 - INDEX: 607-094-00-8	a) Aquatic acute toxicity : EC50 Algae 300.82 mg/l 72h
		a) Aquatic acute toxicity : LC50 Fish = 0.53 mg/l 96h - ,,Oncorhynchus mykiss, method OECD TG 203
		a) Aquatic acute toxicity : EC50 Daphnia = 0.73 mg/l 48h - ,,Daphnia magna, method OECD TG 202
		a) Aquatic acute toxicity : EC50 Algae = 0.16 mg/l 72h - ,,Pseudokirchneriella subcapitata, method US-EPA
		a) Aquatic acute toxicity : NOEC Algae = 0.061 mg/l 72h - ,,Pseudokirchneriella subcapitata, method US-EPA
		b) Aquatic chronic toxicity : NOEC Daphnia = 0.05 mg/l 504h - ,,Daphnia magna, OECD 211
		b) Aquatic chronic toxicity : NOEC Fish = 0.001 mg/l 792h - ,,Danio rerio, OECD TG 210

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7. Other adverse effects

N.A.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

3149

14.2. UN proper shipping name

ADR-Shipping Name: PEROSSIDO DI IDROGENO E ACIDO-PEROSSIACETICO IN MISCELA, con acido(i), acqua e non più del 5% di acido perossiacetico, STABILIZZATA

14.3. Transport hazard class(es)

ADR-Class: 5.1

IATA-Class: 5.1

IMDG-Class: 5.1

14.4. Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-H, S-Q

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Transport category (Tunnel restriction code): 2 (E)

Air (IATA):

IATA-Passenger Aircraft: 550

IATA-Cargo Aircraft: 554

IATA-Subsidiary hazards: 8

IATA-Erg: 5C

IATA-Special Provisions: A96

Sea (IMDG):

IMDG-Stowage Code: Category D

IMDG-Subsidiary hazards: 8

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Regulation (EU) n. 2020/878

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: 75

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

Where applicable, refer to the following regulatory provisions :

German Water Hazard Class.

3: Severe hazard to waters

SVHC Substances:

No data available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
EUH071	Corrosive to the respiratory tract.
H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.13/1	Ox. Liq. 1	Oxidising liquid, Category 1
2.13/2	Ox. Liq. 2	Oxidising liquid, Category 2
2.15/D	Org. Perox. D	Organic peroxide, Type D
2.15/G	Org. Perox. G	Organic peroxide, Type G
2.16/1	Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
3.1/4/Oral	Calculation method
3.2/1A	On basis of test data (pH)
3.3/1	On basis of test data (pH)
3.8/3	Calculation method
4.1/C1	Calculation method
2.13/2	On basis of test data
3.1/4/Dermal	Calculation method
3.1/4/Inhal	Calculation method
2.16/1	On basis of test data
2.15/G	On basis of test data
4.1/A1	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: KAFH

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/D: Not defined/ Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, Bioaccumulative and Toxic

PGK: Packaging Instruction

PNEC: Predicted No Effect Concentration.

PSG: Passengers

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

vPvB: Very Persistent, Very Bioaccumulative.

WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 2: Hazards identification
- SECTION 4: First aid measures
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information