

Creation Date 09-Jun-2009

Revision Date 22-Dec-2020

Revision Number 5

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: **Hydrogen peroxide, 3 wt.% solution in water, stabilized**
Cat No. : **426000000; 426000010; 426000250; 426001000**

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company

EU entity/business name
Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

UK entity/business name
Fisher Scientific UK
Bishop Meadow Road, Loughborough,
Leicestershire LE11 5RG, United Kingdom

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

Full text of Hazard Statements: see section 16

2.2. Label elements

None required

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Hydrogen peroxide	7722-84-1	231-765-0	3	Ox. Liq. 1 (H271) Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Corr. 1A (H314) Eye Dam. 1 (H318) STOT SE 3 (H335) Aquatic Chronic 3 (H412)
Water	7732-18-5	231-791-2	97	-

Component	Concentration limits	M-Factor	Component notes
Hydrogen peroxide	Skin Corr. 1A :: C>=70% Skin Corr. 1B :: 50%<=C<70% Skin Irrit. 2 :: 35%<=C<50% Eye Dam. 1 :: C>=8% Eye Irrit. 2 :: 5%<=C<8% Ox. Liq. 1 :: C>=60% Ox. Liq. 2 :: 20%<=C<70% Ox. Liq. 3 :: 8%<=C<20% STOT SE 3 :: C>=35% Aquatic Chronic 3 :: C>=63%	-	-

Components	Reach Registration Number
Hydrogen peroxide	01-2119485845-22

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

immediately if symptoms occur.

Ingestion Do NOT induce vomiting. Get medical attention.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Self-Protection of the First Aider No special precautions required.

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

Causes eye burns.

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

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Non-combustible. Containers may explode when heated.

Hazardous Combustion Products

Oxygen.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK)
(Germany)

Storage Class/LGK 12

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Third edition. Published 2018. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Hydrogen peroxide		STEL: 2 ppm 15 min STEL: 2.8 mg/m ³ 15 min TWA: 1 ppm 8 hr TWA: 1.4 mg/m ³ 8 hr	TWA / VME: 1 ppm (8 heures). TWA / VME: 1.5 mg/m ³ (8 heures).	TWA: 1 ppm 8 uren TWA: 1.4 mg/m ³ 8 uren	TWA / VLA-ED: 1 ppm (8 horas) TWA / VLA-ED: 1.4 mg/m ³ (8 horas)
Component	Italy	Germany	Portugal	The Netherlands	Finland
Hydrogen peroxide		TWA: 0.5 ppm (8 Stunden). MAK TWA: 0.71 mg/m ³ (8 Stunden). MAK Höhepunkt: 0.5 ppm Höhepunkt: 0.71 mg/m ³	TWA: 1 ppm 8 horas		TWA: 1 ppm 8 tunteina TWA: 1.4 mg/m ³ 8 tunteina STEL: 3 ppm 15 minuutteina STEL: 4.2 mg/m ³ 15 minuutteina
Component	Austria	Denmark	Switzerland	Poland	Norway
Hydrogen peroxide	MAK-KZW: 2 ppm 15 Minuten MAK-KZW: 2.8 mg/m ³ 15 Minuten MAK-TMW: 1 ppm 8 Stunden MAK-TMW: 1.4 mg/m ³ 8 Stunden	TWA: 1 ppm 8 timer TWA: 1.4 mg/m ³ 8 timer	STEL: 2 ppm 15 Minuten STEL: 2.8 mg/m ³ 15 Minuten TWA: 1 ppm 8 Stunden TWA: 1.4 mg/m ³ 8 Stunden	STEL: 0.8 mg/m ³ 15 minutach TWA: 0.4 mg/m ³ 8 godzinach	TWA: 1 ppm 8 timer TWA: 1.4 mg/m ³ 8 timer STEL: 3 ppm 15 minutter. value calculated STEL: 2.8 mg/m ³ 15 minutter. value calculated
Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Hydrogen peroxide	TWA: 1.5 mg/m ³	TWA-GVI: 1 ppm 8 satima. TWA-GVI: 1.4 mg/m ³ 8 satima.	TWA: 1 ppm 8 hr. TWA: 1.5 mg/m ³ 8 hr. STEL: 3 mg/m ³ 15 min STEL: 2 ppm 15 min		TWA: 1 mg/m ³ 8 hodinách. Ceiling: 2 mg/m ³

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

		STEL-KGVI: 2 ppm 15 minutama. STEL-KGVI: 2.8 mg/m ³ 15 minutama.		
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Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Hydrogen peroxide	TWA: 1 ppm 8 tundides. TWA: 1.4 mg/m ³ 8 tundides. STEL: 2 ppm 15 minutites. STEL: 3 mg/m ³ 15 minutites.		STEL: 3 mg/m ³ TWA: 1 ppm TWA: 1.4 mg/m ³		TWA: 1 ppm 8 klukkustundum. TWA: 1.4 mg/m ³ 8 klukkustundum. Ceiling: 2 ppm Ceiling: 2.8 mg/m ³

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Hydrogen peroxide		Ceiling: 2 ppm Ceiling: 3 mg/m ³ TWA: 1 ppm IPRD TWA: 1.4 mg/m ³ IPRD			

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Hydrogen peroxide		Ceiling: 2.8 mg/m ³ TWA: 1 ppm TWA: 1.4 mg/m ³		Binding STEL: 2 ppm 15 minuter Binding STEL: 3 mg/m ³ 15 minuter TLV: 1 ppm 8 timmar. NGV TLV: 1.4 mg/m ³ 8 timmar. NGV	

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) No information available

<u>Route of exposure</u>	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral Dermal Inhalation				

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection

Protective gloves

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber	See manufacturers recommendations	-	EN 374	(minimum requirement)
Nitrile rubber				
Neoprene				
PVC				

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection No protective equipment is needed under normal use conditions.

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particle filter

Small scale/Laboratory use Maintain adequate ventilation

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Liquid	
Appearance	Clear	
Odor	Slight	
Odor Threshold	No data available	
Melting Point/Range	0 °C / 32 °F	
Softening Point	No data available	
Boiling Point/Range	100 °C / 212 °F	@ 760mmHg
Flammability (liquid)	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Flash Point	No information available	Method - No information available
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
pH	No information available	
Viscosity	No data available	
Water Solubility	Soluble	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Hydrogen peroxide	-1.1	
Vapor Pressure	23.3 mmHg @ 30°C	
Density / Specific Gravity	1.00	
Bulk Density	Not applicable	Liquid
Vapor Density	> 1.00	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

9.2. Other information

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Light sensitive.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous Reactions

Hazardous polymerization does not occur.
None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat. Exposure to light.

10.5. Incompatible materials

Finely powdered metals. Finely powdered metals.

10.6. Hazardous decomposition products

Oxygen.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrogen peroxide	376 mg/kg (Rat) (90%) 910 mg/kg (Rat) (20-60%) 1518 mg/kg (Rat) (8-20% sol)	>2000 mg/kg (Rabbit)	LC50 = 2000 mg/m ³ (Rat) 4 h
Water	-	-	-

(b) skin corrosion/irritation;

Based on available data, the classification criteria are not met

(c) serious eye damage/irritation;

Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

(e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

(f) carcinogenicity;

Based on available data, the classification criteria are not met

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs None known.

(j) aspiration hazard; Based on available data, the classification criteria are not met

Other Adverse Effects See actual entry in RTECS for complete information

Symptoms / effects, both acute and delayed No information available.

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Contains a substance which is: Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Hydrogen peroxide	LC50: 16.4 mg/L/96h (P.promelas)	EC50 7.7 mg/L/24h	EC50 2.5 mg/L/72h

12.2. Persistence and degradability

Persistence

Soluble in water, Persistence is unlikely, based on information available.

Degradability

Not relevant for inorganic substances.

Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Hydrogen peroxide	-1.1	No data available

12.4. Mobility in soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB assessment

No data available for assessment.

12.6. Endocrine disrupting

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

properties

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

ADR Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

IATA Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Maritime transport in bulk according to IMO instruments Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDL), Philippines (PICCS), China (IECSC), Japan (ENCS), Australia

ACR42600

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

(AICS), Korea (ECL).

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Hydrogen peroxide	231-765-0	-		X	X	-	X	X	X	X	KE-2020 4
Water	231-791-2	-		X	X	-	X	X	X	X	KE-3540 0

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

National Regulations

WGK Classification

Water endangering class = 1 (self classification)

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Hydrogen peroxide	WGK1	

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: OTHER INFORMATION

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

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

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

SAFETY DATA SHEET

Hydrogen peroxide, 3 wt.% solution in water, stabilized

Revision Date 22-Dec-2020

Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

ATE - Acute Toxicity Estimate
VOC (volatile organic compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

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

Physical hazards On basis of test data

Health Hazards Calculation method

Environmental hazards Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Creation Date 09-Jun-2009

Revision Date 22-Dec-2020

Revision Summary Update to CLP Format.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No
1907/2006**

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet