

SAFETY DATA SHEET

according to the Global Harmonized System (and with all of the information required by the HPR)

Revision Date 06/17/2018

Version 1.4

SECTION 1. Identification**Product identifier**

Product number HX0636
Product name Hydrogen Peroxide 30% OmniTrace Ultra™

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

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company Millipore (Canada) Ltd | 109 Woodbine Downs Blvd. Unit 5 | Etobicoke
| Ontario M9W 6Y1 | Canada | General Inquiries: +1 800-645-5476 |
Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification**GHS Classification**

Acute toxicity, Category 4, Oral, H302
Serious eye damage, Category 1, H318

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

GHS-Labeling*Hazard pictograms**Signal Word*

Danger

Hazard Statements

H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary Statements

P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

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P280 Wear protective gloves/ eye protection/ face protection.

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature

Aqueous solution

Hazardous ingredients

Chemical name (Concentration)

CAS-No.

hydrogen peroxide (>= 30 % - < 50 %)

7722-84-1

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Dizziness, Unconsciousness, Diarrhea, Nausea, Vomiting, Headache, Convulsions, muscle twitching, insomnia, shock, Irritation and corrosion, conjunctivitis

Risk of serious damage to eyes.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

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Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Has a fire-promoting effect due to release of oxygen.

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralizing material (e.g. Chemisorb® H⁺, Art. No. 101595).

Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

No metal containers.

Close containers in such a way to enable internal pressure to escape.

Tightly closed. Protected from light. Do not store near combustible materials.

No declaration

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SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>hydrogen peroxide 7722-84-1</i>			
CAD AB OEL	Time Weighted Average (TWA):	1 ppm 1.4 mg/m ³	
CAD BC OEL	Time Weighted Average (TWA):	1 ppm	
CAD MB OEL	Time Weighted Average (TWA):	1 ppm	
CAD ON OEL	Time Weighted Average (TWAEV):	1 ppm	
OEL (QUE)	Time Weighted Average (TWA):	1 ppm 1.4 mg/m ³	

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Tightly fitting safety goggles

Hand protection

full contact:

Glove material:	natural latex
Glove thickness:	0.6 mm
Break through time:	480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 706 Lapren® (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

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Other protective equipment:

protective clothing

Respiratory protection

required when vapors/aerosols are generated.

Recommended Filter type: filter NO

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These measures have to be properly documented.

SECTION 9. Physical and chemical properties

Physical state	liquid
Color	colorless
Odor	slight
Odor Threshold	No information available.
pH	2 - 4 at 68 °F (20 °C)
Melting point	ca. -13.9 °F (-25.5 °C)
Boiling point/boiling range	ca. 226 °F (108 °C) at 1,013 hPa
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	ca. 18 hPa at 68 °F (20 °C)
Relative vapor density	1.2
Density	1.11 g/cm ³ at 68 °F (20 °C)
Relative density	No information available.
Water solubility	at 68 °F (20 °C) soluble

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Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	> 212 °F (> 100 °C)
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	Oxidizing potential
Ignition temperature	Not applicable

SECTION 10. Stability and reactivity

Reactivity

Has a fire-promoting effect due to release of oxygen.

Chemical stability

heat-sensitive
Sensitivity to light

Possibility of hazardous reactions

Risk of explosion with:

Acetaldehyde, Acetone, Activated charcoal, Alcohols, formic acid, Ammonia, combustible substances, vinyl acetate, Organic Substances, Powdered metals, Dust., hydrazine and derivatives, hydrides, Ether, Potassium, anilines, metallic salts, acetic acid, Acetic anhydride, formaldehyde, furfuryl alcohol, oils, sodium, Lithium, lithium aluminum hydride, organic solvents, magnesium, metallic oxides, Methanol, Reducing agents, Oxides of phosphorus

butanol, with, Sulphuric acid

alkali hydroxides, with, Heavy metals

Exothermic reaction with:

alkali hydroxides, antimony sulfide, tin (II) chloride, Sulfides, THIOPHENE, nitric acid (conc.), ethanol, glycerol, Potassium hydroxide, phosphorus, metallic oxides, Sodium hydroxide, Aldehydes, nonmetals, nonmetallic oxides, strong alkalis, Amines, Acids, Oxidizing agents, alkali salts, Alkali metals, Alkaline earth metals, iodides, peroxi compounds, brass, organic nitro compounds

phenol, with, metal catalysts

Risk of ignition or formation of inflammable gases or vapors with:

potassium permanganate, Wood/Sawdust

vinyl acetate, with, Catalyst

Conditions to avoid

Heating.

Incompatible materials

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Metals

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Inhalation, Eye contact, Skin contact

Acute oral toxicity

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate: 1,613 mg/kg

Calculation method

Acute inhalation toxicity

Symptoms: Possible damages: , mucosal irritations

Acute toxicity estimate: > 20 mg/l; 4 h ; vapor

Calculation method

Skin irritation

After long-term exposure to the chemical: Causes skin burns.

Eye irritation

conjunctivitis

Mixture causes serious eye damage.

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

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

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

Confirmed animal carcinogen with unknown relevance to humans.

hydrogen peroxide

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Further information

After absorption:

Systemic effects:

Headache, Dizziness, Nausea, Vomiting, Diarrhea, insomnia, muscle twitching, Convulsions, shock, Unconsciousness

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

hydrogen peroxide

Acute oral toxicity

Acute toxicity estimate: 500.1 mg/kg

Expert judgment

Acute dermal toxicity

LD50 Rabbit: > 2,000 mg/kg

US-EPA

Repeated dose toxicity

Mouse

male

Oral

90 d

daily

NOAEL: 26 mg/kg

LOAEL: 76 mg/kg

OECD Test Guideline 408

Subchronic toxicity

Rat

male and female

inhalation (dust/mist/fume)

28 d

daily

NOAEL: 0.0029 mg/l

LOAEL: 0.0146 mg/l

OECD Test Guideline 412

Subacute toxicity

Germ cell mutagenicity

Genotoxicity in vivo

In vivo micronucleus test

Mouse

Result: negative

Method: OECD Test Guideline 474

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

Biodegradability

Readily biodegradable.

Bioaccumulative potential

No information available.

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Mobility in soil

No information available.

Additional ecological information

No interference with wastewater treatment plants are to be expected when used properly.

Discharge into the environment must be avoided.

Ingredients

hydrogen peroxide

Toxicity to fish

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

Analytical monitoring: yes

US-EPA

semi-static test NOEC Pimephales promelas (fathead minnow): 5 mg/l; 96 h

Analytical monitoring: yes

US-EPA

Toxicity to daphnia and other aquatic invertebrates

semi-static test LC50 Daphnia pulex (Water flea): 2.4 mg/l; 48 h

Analytical monitoring: yes

US-EPA

semi-static test NOEC Daphnia pulex (Water flea): 1 mg/l; 48 h

Analytical monitoring: yes

US-EPA

Toxicity to algae

IC50 Pseudokirchneriella subcapitata (green algae): 5.7 mg/l; 72 h (ECOTOX Database)

Growth rate NOEC Skeletonema costatum (marine diatom): 0.63 mg/l; 72 h (External MSDS)

Toxicity to bacteria

static test EC50 activated sludge: 466 mg/l; 30 min

Analytical monitoring: yes

OECD Test Guideline 209

static test EC50 activated sludge: > 1,000 mg/l; 3 h

Analytical monitoring: yes

OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

flow-through test NOEC Daphnia magna (Water flea): 0.63 mg/l; 21 d

(ECHA)

Biodegradability

> 99 %; 0.5 h; aerobic

(ECHA)

Readily biodegradable.

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

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SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number UN 2014
Proper shipping name HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Class 5.1 (8)
Packing group II
Environmentally hazardous --

Air transport (IATA)

UN number UN 2014
Proper shipping name HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Class 5.1 (8)
Packing group II
Environmentally hazardous --
Special precautions for user yes
Not permitted for transport

Sea transport (IMDG)

UN number UN 2014
Proper shipping name HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Class 5.1 (8)
Packing group II
Environmentally hazardous --
Special precautions for user yes
EmS F-H S-Q

SECTION 15. Regulatory information

United States of America

Canada

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

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SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

Hazard pictograms



Signal Word

Danger

Hazard Statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

Precautionary Statements

Prevention

P280 Wear eye protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/ attention.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 06/17/2018

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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