3% Hydrogen Peroxide WFI Sterile Solution

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 02/24/2014 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Trade name : 3% Hydrogen Peroxide WFI Sterile Solution

Product code : 1S07

Product group : Trade product

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Product for industrial use only

Use of the substance/mixture : Surface cleaner

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer:

STERIS Corporation
P. O. Box 147, St. Louis, MO 63166, US
Telephone Number for Information: 1-800-444-9009 (Customer Service-Scientific Products)
US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

Supplier:

STERIS Limited
Chancery House, 190 Waterside Road, Hamilton Industrial Park,
Leicester, LE5 1QZ, UK
Product/Technical Information Phone No: +44 (0) 116 276 8636
Email: asksteris_msds@steris.com

1.4. Emergency telephone number

Emergency number : +44 (0) 1895 622 639

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Irrit. 2 H319

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : H319 - Causes serious eye irritation

Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing and eye/face protection

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention

EUH phrases : EUH210 - Safety data sheet available on request

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Hydrogen peroxide	(CAS No) 7722-84-1 (EC no) 231-765-0 (EC index no) 008-003-00-9	3	Xn; R20/22 C; R35 R5 O; R8

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrogen peroxide	(CAS No) 7722-84-1 (EC no) 231-765-0 (EC index no) 008-003-00-9	3	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible)

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical attention

First-aid measures after skin contact : Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention

First-aid measures after eye contact : In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately get medical attention

First-aid measures after ingestion : Do NOT induce vomiting. If victim completely conscious/alert. Rinse mouth. Give water or milk if the person is fully conscious. Immediately call a POISON CENTER or doctor/physician

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

Symptoms/injuries after inhalation : May be irritating to the mucous membranes and to the respiratory system

Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation

Symptoms/injuries after eye contact : Causes serious eye irritation

Symptoms/injuries after ingestion : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Flood with plenty of water

Unsuitable extinguishing media : Organic compounds. As hydrogen peroxide may react with a variety of organic materials and can form explosive mixtures, shock sensitive compounds, and initiate fire. Foam is not effective as oxygen and heat continue to be generated under the foam blanket

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : On decomposition releases oxygen which may intensify fire. Containers may swell and burst during a fire due to internal pressure caused by heat

5.3. Advice for firefighters

Firefighting instructions	:	Exercise caution when fighting any chemical fire
Protective equipment for firefighters	:	Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection
Other information	:	Oxygen evolution decomposition may burst sealed containers and accelerate the burning rates of other combustible materials. Damp material in contact with paper, wood, cloth, etc. May cause spontaneous combustion of the organic material

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Ensure adequate ventilation. Do not breathe fumes, vapors. Avoid contact with skin, eyes and clothes

6.1.1. For non-emergency personnel

Protective equipment	:	Wear protective gloves and eye/face protection. For further information refer to section 8: Exposure-controls/personal protection
Emergency procedures	:	Stop leak if safe to do so. Evacuate unnecessary personnel

6.1.2. For emergency responders

Protective equipment	:	Equip cleanup crew with proper protection
Emergency procedures	:	Ventilate area

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	:	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Do not absorb in sawdust, paper, cloth or other combustible absorbents. Comply with applicable local, national and international regulation

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Read label before use. Provide good ventilation in process area to prevent formation of vapour. Avoid all eye and skin contact and do not breathe vapour and mist. Keep away from incompatible materials. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not wear leather soled shoes
Hygiene measures	:	Take care for general good hygiene and housekeeping. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated clothing should be washed thoroughly in order to eliminate a delayed potential fire hazard

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Provide adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present
Storage conditions	:	Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use
Incompatible materials	:	Strong alkalis. Strong oxidizing agents. Organic materials. Reducing agents. Metal salts. Alkali metals. Wood. Paper. Copper and its alloys
Prohibitions on mixed storage	:	Do not store near oxidizing agents. Keep away from incompatible materials
Storage area	:	Store in dry, cool, well-ventilated area
Special rules on packaging	:	Correctly labelled

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrogen peroxide (7722-84-1)		
United Kingdom	WEL TWA (mg/m³)	1,4 mg/m³
United Kingdom	WEL TWA (ppm)	1 ppm
United Kingdom	WEL STEL (mg/m³)	2,8 mg/m³

Hydrogen peroxide (7722-84-1)		
United Kingdom	WEL STEL (ppm)	2 ppm
USA - ACGIH	ACGIH TWA (ppm)	1 ppm
USA - IDLH	US IDLH (ppm)	75 ppm
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	1,4 mg/m³
USA - NIOSH	NIOSH REL (TWA) (ppm)	1 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m³)	1,4 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	1 ppm

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure

Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. The following pictograms represent the minimum requirements for personal protective equipment. Protective clothing. Gloves. Protective eyewear

Hand protection : Wear protective gloves. Use neoprene gloves. Use gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected

Eye protection : Wear protective eyewear

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Work in well-ventilated zones or use proper respiratory protection. Wear appropriate mask

Other information : Do not eat, drink or smoke during use

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear

Colour : Colourless

Odour : Odourless

Odour threshold : No data available

pH : 4,3

Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Density : ca. 1,010 g/ml Specific Gravity

Solubility : Water: completely soluble

Log Pow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : Oxidizer

Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates: Corrosive vapours

10.2. Chemical stability

Stable under normal conditions of use

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur

10.4. Conditions to avoid

Extremely high or low temperatures

10.5. Incompatible materials

Strong alkalis. Strong oxidizers. Organic materials. Reducing agent. Alkali metals. Metal salts. Readily oxidizible materials such as paper, wood, sulfur and aluminum. Copper and its alloys

10.6. Hazardous decomposition products

Toxic fumes may be released

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Hydrogen peroxide (7722-84-1)	
LD50 oral rat	801 mg/kg
LD50 dermal rat	4060 mg/kg
LD50 dermal rabbit	2000 mg/kg
LC50 inhalation rat (mg/l)	2 g/m³ (Exposure time: 4 h)
ATE (oral)	801,000 mg/kg bodyweight
ATE (dermal)	2000,000 mg/kg bodyweight
ATE (gases)	4500,000 ppmV/4h
ATE (vapours)	2,000 mg/l/4h
ATE (dust,mist)	2,000 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 4,3

Serious eye damage/irritation : Causes serious eye irritation
pH: 4,3

Respiratory or skin sensitisation : Not classified
Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Hydrogen peroxide (7722-84-1)	
LC50 fishes 1	16,4 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

Hydrogen peroxide (7722-84-1)	
EC50 Daphnia 1	7,7 mg/l (Exposure time: 24 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	2,5 mg/l (Exposure time: 72 h - Species: Chlorella vulgaris)
LC50 fish 2	18 - 56 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [Static])
EC50 Daphnia 2	18 - 32 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

3% Hydrogen Peroxide WFI Sterile Solution	
Bioaccumulative potential	Not established

Hydrogen peroxide (7722-84-1)	
BCF fish 1	(no bioaccumulation)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Empty containers should be thoroughly rinsed with large quantities of clean water. Consult the appropriate authorities about waste disposal

Additional information : Do not re-use empty containers. Container remains hazardous when empty. Continue to observe all precautions

Ecology - waste materials : No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

No dangerous goods in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.6.4. Inland waterway transport

No additional information available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

Seveso Information : Not available

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Sources of Key data : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixturejs, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Other information : None

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Liq. 1	Oxidising Liquids, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
STOT SE 3	Specific target organ toxicity (single exposure), Category 3
H271	May cause fire or explosion; strong oxidiser
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects
R20/22	Harmful by inhalation and if swallowed
R35	Causes severe burns
R36	Irritating to eyes
R5	Heating may cause an explosion
R8	Contact with combustible material may cause fire
C	Corrosive
O	Oxidising
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II)

The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.