

SAFETY DATA SHEET

EPIMAX S, Surface disinfectant concentrate

Version 1.1

SDS Number: 040770810800

Revision Date: 20/09/2021

SECTION 1. IDENTIFICATION

Product name:

EPIMAX S, Surface disinfectant concentrate

Manufacturer or supplier's details

Company name of supplier: Emad pharmaceutical Company

Address: Razi industrial zone, Esfahan. Iran

Telephone: +98-3153323398

Recommended use of the chemical and restrictions on use

Recommended use: Surface disinfectant

Restrictions on use:

This SDS contains valuable information critical to the safe handling and proper use of the product for workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids: Category 1

Eye irritation: Category 1

GHS label elements

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H314 - Causes severe skin burns and eye damage

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H272 - May intensify fire; oxidizer

Precautionary statements:

Prevention:

P271-Use only outdoors or in a well-ventilated area

P260 - Do not breathe mist, vapours or spray.

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P220 - Keep/Store away from clothing/flammable materials/combustibles

P221 - Take any precaution to avoid mixing with combustibles/flammables

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

P310 - Immediately call a POISON CENTER or doctor

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P310 - Immediately call a POISON CENTER or doctor
In case of fire:
P370 + P378 : Use water for extinction
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.
Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	Chemical name CAS-No.	Concentration (%)
Hydrogen peroxide 50%	7722-84-1	>= 50 < 55

SECTION 4. FIRST AID MEASURES

General advice: In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses, if present, after the first 5 minutes,

then continue rinsing. Seek immediate medical attention/advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

Inhalation: Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion: Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Hydrogen Peroxide irritates respiratory system and, if inhaled, may cause inflammation and pulmonary edema. The effects may not be immediate. Overexposure symptoms are coughing, giddiness and sore throat. In case of accidental ingestion, necrosis may result from mucous membrane burns (mouth, esophagus and stomach). Oxygen rapid release may cause stomach swelling and hemorrhaging, which may product major, or even fatal,injury to organs if a large amount has been ingested. In case of skin contact, may cause burns, erythema, blisters or even necrosis.

Indication of immediate medical attention and special treatment needed, if necessary:

Hydrogen peroxide at these concentrations is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed

immediately. Careful ophthalmologic evaluation is recommended and the possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects on the gastrointestinal tract after ingestion, and the unlikelihood of systemic effects, attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distension due to gas formation.

SECTION 5. FIREFIGHTING MEASURES

Suitable Extinguishing Media:

Water. Do not use any other substance.

Specific Hazards Arising from the

Chemical:

In closed unventilated containers, risk of rupture due to the increased pressure from decomposition. Contact with combustible material may cause fire

Hazardous Combustion Products:

On decomposition product releases oxygen which may intensify fire.

Explosion data

Sensitivity to Mechanical Impact

Not sensitive.

Sensitivity to Static Discharge

Not sensitive.

Protective equipment and precautions for firefighters:

Use water spray to cool fire exposed surfaces and protect personnel. Move containers from fire area if you can do it without risk. As in any fire, wear self-contained breathing apparatus and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Isolate and post spill area. Keep people away from and upwind of spill/leak. Eliminate all sources of ignition and remove combustible materials.
Other	Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in fire.
Environmental Precautions	See Section 12 for additional Ecological Information.
Methods for Containment	Dike to collect large liquid spills. Stop leak and contain spill if this can be done safely. Small spillage: Dilute with large quantities of water.
Methods for cleaning up	Flush area with flooding quantities of water. Hydrogen peroxide may be decomposed by adding sodium meta bisulfite or sodium sulfite after diluting to about 5%.

SECTION 7. HANDLING AND STORAGE

Handling	Use only in well-ventilated areas. Keep/Store away from clothing/ combustible materials. Wear personal protective equipment. Never return unused hydrogen peroxide to original container. Contamination may cause decomposition and generation of oxygen gas which could result in high pressures and possible
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container rupture. Empty drums should be triple rinsed with water before discarding. Utensils used for handling hydrogen peroxide should only be made of glass, stainless steel, aluminum or plastic. Pipes and equipment should be passivated before first use. Hydrogen peroxide should be stored only in vented containers and transferred only in a prescribed manner.

Storage

Keep containers in cool areas out of direct sunlight and away from combustibles. Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment. Containers must be vented. Keep/store only in original container. Store rooms or warehouses should be made of non-combustible materials with impermeable floors. In case of release, spillage should flow to safe area. Containers should be visually inspected on a regular basis to detect any abnormalities (swollen drums, increases in temperature, etc.).

Incompatible products

Combustible materials. Copper alloys, galvanized iron. Strong reducing agents. Heavy metals. Iron. Copper alloys. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hydrogen peroxide	7722-84-1	TWA	1ppm	ACGIH TLV

		TWA	1 ppm	OSHA PEL
		TWA	1.4 mg/m3	OSHA PEL
		IDLH	75 ppm	NIOSH
		TWA	1 ppm	NIOSH
		TWA	1.4 mg/m3	NIOSH
		TWA	1 ppm	Mexico
		TWA	1.5 mg/m3	Mexico
		STEL	2 ppm	Mexico
		STEL	3 mg/m3	Mexico
		TWA	1 ppm	British Columbia
		TWA	1 ppm	Quebec
		TWA	1.4 mg/m3	Quebec
		TWA	1 ppm	Ontario TWA EV
		TWA	1 ppm	Alberta
		TWA	1.4 mg/m3	Alberta

Appropriate engineering controls

Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.
Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Use chemical splash-type monogoggles and a full-face shield made of polycarbonate, acetate, polycarbonate/acetate, PETG or thermoplastic.

Skin and Body Protection

For body protection wear impervious clothing such as an approved splash protective suit made of SBR rubber, PVC (PVC Outershell w/ Polyester Substrate), Gore-Tex (Polyester trilaminate w/ Gore-Tex), or a specialized HAZMAT Splash or Protective Suite (Level A, B, or C). For foot protection, wear approved boots made of NBR, PVC, Polyurethane, or neoprene. Overboots made of Latex or PVC, as well as firefighter boots or specialized HAZMAT boots are also permitted.

DO NOT wear any form of boot or overboot made of nylon or nylon blends. DO NOT USE cotton, wool or leather as these materials react rapidly with higher concentrations of hydrogen peroxide. Completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on materials such as paper, fabrics, cotton, leather, wood or other combustibles, can cause the material to ignite and result in a fire.

Hand Protection

For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. DO NOT use cotton, wool or leather for these materials react RAPIDLY with higher concentrations of hydrogen peroxide. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

Respiratory Protection

If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)). DO NOT use any form of air-purifying respirator (APR) or filtering facepiece (dust mask), especially those containing oxidizable sorbants such as activated carbon.

Hygiene measures

Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.

General information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid
Colour:	clear, colourless
Odour:	alcohol-like
Odour Threshold:	No data available
pH:	0.5-1.5, (20 °C)(1%)
Melting point/ freezing point:	No data available
Initial boiling point and boiling range:	56 °C
Evaporation rate:	No data available
Flammability (solid, gas):	Not applicable
Flammability (liquids):	No data available
Upper explosion limit:	No data available
Lower explosion limit:	No data available
Vapour pressure:	No data available
Relative vapour density:	No data available

Density:	1.1-1.2 g/cm ³
Solubility(ies)	
Water solubility:	soluble
Partition coefficient: n-octanol/water:	Not applicable
Auto-ignition temperature:	No data available
Thermal decomposition:	The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic:	1-0.85 cSt (20 °C -25°C)
Explosive properties:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Reactive and oxidizing agent.
Chemical Stability	Stable under normal conditions. Decomposes on heating. Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Contact with organic substances may cause fire or explosion. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat; Contamination; Exposure to UV-rays;

pH variations.

Incompatible materials

Combustible materials. Copper alloys, galvanized iron. Strong reducing agents. Heavy metals. Iron. Copper alloys. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.

Hazardous Decomposition
Products

Oxygen which supports combustion. Liable to produce overpressure in container.

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral

50% solution: LD50 > 225 mg/kg bw (rat)
35 % solution: LD50 1193 mg/kg bw (rat)
70 % solution: LD50 1026 mg/kg bw (rat)

LD50 Dermal

35% solution: LD50 > 2000 mg/kg bw (rabbit)
70 % solution: LD50 9200 mg/kg bw (rabbit)

LC50 Inhalation

50% solution: LC50 > 170 mg/m³ (rat) (4-hr)
Hydrogen Peroxide vapors: LC0 9400 mg/m³ (mouse)
(5 - 15 minutes)
Hydrogen Peroxide vapors: LC50 > 2160 mg/m³ (mouse)

Serious eye damage/eye
irritation

Corrosive. Risk of serious damage to eyes.
Skin corrosion/irritation Corrosive to skin. Causes severe burns.

Sensitization

Did not cause sensitization on laboratory animals.

Information on toxicological effects

Symptoms	Vapors, mists, or aerosols of hydrogen peroxide can cause upper airway irritation, inflammation of the nose, hoarseness, shortness of breath, and a sensation of burning or tightness in the chest. Prolonged exposure to concentrated vapor or to dilute solutions can cause irritation and temporary bleaching of skin and hair. Exposure to vapor, mist, or aerosol can cause stinging pain and tearing of eyes.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	This product contains hydrogen peroxide. The International Agency for Research on Cancer (IARC) has concluded that there is inadequate evidence for carcinogenicity of hydrogen peroxide in humans, but limited evidence in experimental animals (Group 3 – not classifiable as to its carcinogenicity to humans). The American Conference of Governmental Industrial Hygienists (ACGIH) has concluded that hydrogen peroxide is a 'Confirmed Animal Carcinogen with Unknown Relevance to Humans' (A3).
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Components:

Hydrogen peroxide

7722-84-1

ACGIH

A3

IARC

3

Mutagenicity	This product is not recognized as mutagenic by Research Agencies In vivo tests did not show mutagenic effects
Reproductive	toxicity This product is not recognized as reprotox by Research Agencies. No toxicity to reproduction in animal studies.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Not classified.

Target organ effects Eyes, Respiratory System, Skin.

Aspiration hazard Aspiration risk: may cause lung damage if swallowed.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects Hydrogen peroxide is naturally produced by sunlight (between 0.1 and 4 ppb in air and 0.001 to 0.1 mg/L in water). Not expected to have significant environmental effects.

Hydrogen peroxide (7722-84-1)				
Active Ingredient(s)	Duration	Species	Value	Units
Hydrogen peroxide	96 h LC50	Fish Pimephales promelas	16.4	mg/L
Hydrogen peroxide	72 h LC50	Fish Leuciscus idus	35	mg/L
Hydrogen peroxide	48 h EC50	Daphnia pulex	2.4	mg/L
Hydrogen peroxide	24 h EC50	Daphnia magna	7.7	mg/L
Hydrogen peroxide	72 h LC50	Algae Skeletonema costatum	1.38	mg/L
Hydrogen peroxide	21 d NOEC	Daphnia magna	0.63	mg/L

Persistence and Degradability: Hydrogen peroxide in the aquatic environment is subject to various reduction or oxidation processes and decomposes into water and oxygen. Hydrogen peroxide half-life in freshwater ranged from 8 hours to 20 days, in air from 10 - 20 hours, and in soils from minutes to hours depending upon microbiological activity and metal contamination.

Bioaccumulation: Material may have some potential to bioaccumulate but will likely degrade in most environments before accumulation can occur.

Mobility Will likely be mobile in the environment due to its water solubility but will likely degrade over time.

Other Adverse Effects Decomposes into oxygen and water. No adverse effects

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste disposal methods	Dispose of in accordance with local regulations. Can be disposed as waste water, when in compliance with local regulations.
US EPA Waste Number	D001 D003
Contaminated Packaging	Dispose of in accordance with local regulations. Drums - Empty as thoroughly as possible. Triple rinse drums before disposal. Avoid contamination; impurities accelerate decomposition. Never return product to original container.

SECTION 14. TRANSPORT INFORMATION

DOT

UN/ID no UN 2014

Proper Shipping Name HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Hazard class 5.1

Subsidiary class 8

Packing Group II

TDG

UN/ID no UN 2014

Proper Shipping Name HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Hazard class 5.1

Subsidiary class 8

Packing Group II

ICAO/IATA

Hydrogen peroxide (>40%) is forbidden on Passenger and Cargo Aircraft. Air regulation permit shipment of Hydrogen Peroxide (<=40%) in non-vented containers for Air Cargo Only aircraft, as well as for Passenger and Cargo aircraft. HOWEVER, all Hydrogen Peroxide containers are vented and therefore, air shipments of H₂O₂ are not permitted. IATA air regulations state that venting of packages containing oxidizing substances is not permitted for air transport.

IMDG/IMO

UN/ID no UN 2014

Proper Shipping Name HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Hazard class 5.1

Subsidiary Hazard Class 8

Packing Group II

OTHER INFORMATION

Protect from physical damage. Keep drums in upright position. Drums should not be stacked in transit. Do not store drums on wooden pallets.

SECTION 15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes

Chronic health hazard No

Fire hazard Yes

Sudden release of pressure hazard No

Reactive Hazard No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

Hydrogen peroxide

7722-84-1

Hazardous Substances RQs

No information available

Extremely Hazardous Substances RQs

1000 lb

SARA RQ

No information available

SECTION 16. OTHER INFORMATION

Further information

NFPA	Health Hazards 3	Flammability 0	Stability 1	Special Hazards OX
HMIS	Health Hazards 3	Flammability 0	Physical hazard 1	Personal Protection H

NFPA/HMIS Ratings Legend

Severe = 4; Serious = 3; Moderate = 2; Slight = 1;
Minimal = 0

Special Hazards: OX = Oxidizer

Protection = H (Safety goggles, gloves, apron, the use of
supplied air or SCBA respirator is
required in lieu of a vapor cartridge respirator)

Uniform Fire Code

Oxidizer: Class 2--Liquid

Revision Date:

20/09/2021

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
