

**DCM SHRIRAM LIMITED**  
**[Unit: SHRIRAM ALKALI & CHEMICALS]**  
**Material Safety Data Sheet**

**HYDROGEN PEROXIDE**

**SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Supplier	:	DCM Shriram Ltd. (Unit: Shriram Alkali & Chemicals) 749/GIDC, Jhagadia-393110, Dist- Bharuch, Gujarat. Phone No: (02645)222000/222015
Substance	:	Hydrogen Peroxide
CAS No.	:	7722-84-1
Trade Name/Synonyms	:	Dihydrogen dioxide (H <sub>2</sub> O <sub>2</sub> )
Application	:	It is used in many industries, mostly use in the manufacture of pulp and paper, textiles, waste water treatment, food industries, Pharma & cosmetics as a cleaning agent.

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Label Information:**



**Corrosive**



**Oxvdizer**



**Irritant**

**NFPA RATING:**

Health Rating	:	3 - Severe
Flammability Rating	:	0 - None
Reactivity Rating	:	1 - Low
Special	:	None

**RISK PHRASES:**

35 : Causes severe burns.

**SAFETY PHRASES:**

1/2 : Keep locked up and out of the reach of children.

26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

37/39 : Wear suitable gloves and eye/face protection.

45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).



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### SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

Component substance	: Hydrogen peroxide
Molecular formula	: H <sub>2</sub> O <sub>2</sub>
Molecular Weight	: 34 gm/mol
Component Percent	: 35 – 60 % by weight
UN No.	: 2984
EC/EINECS/ELINCS No.	: 231-765-0
H. S. Code No.	: 28470000

### SECTION 4: FIRST AID MEASURES

Over exposure is to be avoided. In case of any exposure, obtain medical attention.

**Inhalation:**

Corrosive to respiratory system.

Symptoms: Breathing difficulties, Cough, pulmonary oedema, Nausea, Vomiting repeated.

On prolonged exposure: Nose bleeding, chronic bronchitis. Get medical attention immediately

**Ingestion:**

Moderately toxic by ingestion and causes severe burns of the mouth. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Symptoms: Nausea, Abdominal pain, Bloody vomiting, Diarrhoea, Suffocation, Cough, shortness of breath. Risk of respiratory disorder. Get medical attention immediately.

**Skin Contact:**

Rinse immediately with plenty of water.

The material is irritating and corrosive to skin; may causes severe burns. Symptoms: Redness, Swelling of tissue. If symptom persist, Get medical attention immediately.

**Eye Contact:**

Rinse immediately with plenty of water.

Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

### SECTION 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Water & Water spray

**Extinguishing media which shall not be used for safety reasons**

None.

**Special exposure hazards in a fire**

Not combustible.

Oxygen released in thermal decomposition may support combustion

Nature of decomposition products not known.

Ambient fire may liberate hazardous vapours.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing



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apparatus with full face piece operated in the pressure demand or other positive pressure mode

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Soak up with inert absorbent material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section Provide ventilation.

### SECTION 7: HANDLING AND STORAGE

**Precaution for safe handling**

- Carry out all operations in a closed piping circuit and equipment.
- Use only in well-ventilated areas.
- Keep away from heat.
- Keep away from Incompatible products.
- May not get in touch with organic product.
- Use only equipment and materials which are compatible with the product.
- Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer.
- Never return unused material to storage receptacle.
- Use only in an area with adequate water supply
- Containers and equipment used to handle the product should be used exclusively for that product.
- Do not confine the product in a circuit, between closed valves, or in a container without a vent.

**Condition for safe Storage, including any incompatibilities**

- Keep in a shaded, well-ventilated place.
- Keep away from heat and direct sunlight.
- Keep away from Incompatible products.
- Keep away from combustible material.
- Store in a receptacle equipped with a vent.
- Store in original container.
- Keep container closed.
- Regularly check the condition and temperature of the containers.
- Information about special precautions needed for bulk handling is available on request.

### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

**Personal Respirators:**



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Self-contained breathing apparatus in confined spaces/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection. Use only respiratory protection that conforms to international/ national standards. Use NIOSH approved respiratory protection. Wear an approved full-face air supplied respirator for excessive or unknown concentrations. Selected chemical cartridges for respirators, i.e. OV, OV/AG, GME have been tested successfully under lab conditions to remove hydrogen peroxide and peracetic acid vapors in concentrations exceeding the applicable exposure limits. Use self-contained breathing apparatus in case of large uncontrolled emissions, insufficient oxygen & if the mask and cartridge do not give adequate protection.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Liquid
Appearance	:	Colorless
Odour	:	Odourless
Solubility	:	Soluble in water
Specific Gravity	:	1.132 (H <sub>2</sub> O <sub>2</sub> 35 %)
pH	:	2.0 – 3.0
Boiling Point	:	107.4 °C (H <sub>2</sub> O <sub>2</sub> 35 %)
Melting Point	:	-33 °C (H <sub>2</sub> O <sub>2</sub> 35 %).
Vapour Density (Air=1)	:	1 (H <sub>2</sub> O <sub>2</sub> 50 %)
Vapor Pressure (mm Hg)	:	200 Pa (H <sub>2</sub> O <sub>2</sub> 70 %) <i>Temperature: 30 °C ( 86 °F )</i> 214 Pa (Pure substance) <i>Temperature: 20 °C ( 68 °F )</i>
LEL	:	Not applicable
UEL	:	Not applicable
Flash Point	:	Not applicable

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity**

- Strong Oxidizer. Contact with other non-compatible material may cause fire.
- Potential for exothermic hazard
- Decomposes on heating.

**Chemical Stability**

- Stable under recommended storage conditions.

**Possibility of hazardous reactions**

- Contact with combustible material may cause fire.
- Contact with flammable may cause fire or explosions.
- Risk of explosion if heated under confinement.
- Fire or intense heat may cause violet rupture

**Conditions to avoid**

- Contamination
- To avoid thermal decomposition, do not overheat.



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- Keep at temperature not exceeding: 60 °C

**Incompatible materials**

- Acids, bases, metals, Salts of metals, reducing agents, organic materials, flammable materials

**Hazardous decomposition products**

- Oxygen.
- The release of other hazardous decomposition products is possible if contaminated with incompatible material.

**SECTION 11: TOXICOLOGICAL INFORMATION**

Toxicity Data	:	No data available
Skin corrosion/irritation	:	No data available
eye irritation	:	No data available
Respiratory or skin sensitization	:	No data available
Carcinogenicity	:	No data available
Reproductive toxicity	:	No data available

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecological Overview**

Toxicity to fishes	:	LC50, 96 h, 16.4 mg/l (Pure substance)
Toxicity to bacteria	:	Not listed
Other adverse effects	:	Not listed

Harmful to aquatic animals, so do not discharge into drains.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**SECTION 14: TRANSPORT INFORMATION**

Shipping Name	:	Hydrogen peroxide
UN No.	:	2984
Hazard Class	:	Class 8
Label	:	5.1 - Oxidizing substances
Packaging	:	Approved HDPE drum & Stainless steel packing

**SECTION 15: REGULATORY INFORMATION**

- Refer Section-2
- As per National / State regulations



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**SECTION 16: OTHER INFORMATION**

Name of the firm	Mailing Address	Contact Person in Emergency	Telephone no.
Shriram Alkali & Chemicals (SAC)	749, GIDC Estate Jhagadia. Pin-393110 Dist: Bharuch	Head of Production	Telephone NOS : 02645-222000/222015

**Chlor –Alkali Emergency response network toll free No. : 1800-11-1735**

**Disclaimer:**

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