

# EPIGRAL LTD., UNIT-Dahej

MATERIAL SAFETY DATA SHEET	MSDS NO.:	REVISION DATE:	PAGE	EPIGRAL
Hydrogen peroxide 50%	10	31/08/2023	1 of 9	

**Epigral Ltd.** urges the customers receiving this Material Safety Data Sheet (MSDS) to study it carefully to become aware of hazards, if any, of the product involved. In the interest of Safety, you should notify your employee, agent & contractors about the information on this sheet, furnish a copy of each of your customers for the product, and request your customers to inform their employees and customers as well.

## SECTION 1: Identification

**Product Name** Hydrogen peroxide, 50 wt% solution in water  
**CAS-No** 7722-84-1  
**Synonyms** Carbamide Peroxide; Hydrogen Dioxide; Peroxide

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.  
**Details of the supplier of the safety data sheet**

**Company** : Epigral Limited  
Plot No. CH1.CH2, Industrial Estate  
Dahej, Taluka : Vagra  
Bharuch-392 130  
Gujarat  
INDIA

**Emergency Telephone Number** : 91-9909170472

## SECTION 2 : Hazards identification

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing liquids	Category 2
Acute oral toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Corrosion/Irritation	Category 1
A Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system, Central nervous system (CNS).	

### Label Elements

**Signal Word** Danger



### Hazard Statements

May cause fire or explosion; strong oxidizer  
Causes severe skin burns and eye damage

### Precautionary Statements

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray Wear protective gloves/protective clothing/eye protection/face protection Keep away from heat/sparks/open flames/hot surfaces. - No

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smoking Keep/Store away from clothing/ other combustible materials Take any precaution to avoid mixing with combustibles

### Response

Immediately call a POISON CENTER or doctor/physician

### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

### Eyes

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

### Storage

Store locked up Store in a well-ventilated place. Keep container tightly closed

### Disposal

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

None identified

## SECTION 3: Composition/information on ingredients

Component	CAS NO	Weight %
Hydrogen peroxide	7722-84-1	50-60
Water	7732-18-5	40-50

## SECTION 4: First aid measures

**General Advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

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

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

**Inhalation** If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

**Ingestion** Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Most important symptoms and effects** Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Notes to Physician** Treat symptomatically

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### SECTION 5: Fire fighting measures

<b>Suitable Extinguishing Media</b>	CO 2, dry chemical, dry sand, alcohol-resistant foam.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	No information available
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits Upper</b>	100%
<b>Lower</b>	40%
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available
<b>Specific Hazards Arising from the Chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.
<b>Hazardous Combustion Products</b>	Hydrogen. Thermal decomposition can lead to release of irritating gases and vapors. Oxygen.
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

<b>NFPA</b>			
<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical Hazards</b>
3	0	1	OX

### SECTION 6: Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### SECTION 7: Handling and storage

**Handling**     Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

**Storage**       Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Do not store near combustible materials. To maintain product quality. Keep refrigerated.

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### SECTION 8: Exposure controls/personal protection

#### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Hydrogen peroxide	TWA: 1 ppm	(Vacated) TWA: 1 ppm (Vacated) TWA: 1.4 mg/m <sup>3</sup> TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	TWA: 1 ppm

#### Legend

**ACGIH** - American Conference of Governmental Industrial Hygienists

**OSHA** - Occupational Safety and Health Administration

**NIOSH IDLH:** NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure adequate ventilation, especially in confined areas.

#### Personal Protective Equipment

**Eye/face Protection** Tight sealing safety goggles. Face protection shield.

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

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9: Physical and chemical properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Colorless
<b>Odor</b>	Slight
<b>Odor Threshold</b>	No information available
<b>pH</b>	1-4
<b>Melting Point/Range</b>	-52 °C / -61.6 °F
<b>Boiling Point/Range</b>	114 °C / 237.2 °F @ 760 mmHg
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid,gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
	Upper 100%
	Lower 40%
<b>Vapor Pressure</b>	2.4 kPa @ 30 °C
<b>Vapor Density</b>	1.10
<b>Specific Gravity</b>	1.200
<b>Solubility</b>	miscible
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No information available

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<b>Decomposition Temperature</b>	> 125°C
<b>Viscosity</b>	No information available
<b>Molecular Formula</b>	H2 O2
<b>Molecular Weight</b>	34

### SECTION 10: Stability and reactivity

<b>Reactive Hazard</b>	Yes
<b>Stability</b>	Stable under normal conditions. Oxidizer: Contact with combustible/organic material may cause fire.
<b>Conditions to Avoid</b>	Excess heat. Incompatible products. Combustible material.
<b>Incompatible Materials</b>	Acids, Strong oxidizing agents, Alcohols, Alkaline, Ammonia, Organic materials, Sulfides, Cyanides, lead oxides, Lead, Acetone, Acid anhydrides, Metals, copper, Reducing Agent, Finely powdered metals, Strong reducing agents, Combustible material
<b>Hazardous Decomposition Products</b>	Hydrogen, Thermal decomposition can lead to release of irritating gases and vapors, Oxygen
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing

### SECTION 11: Toxicological information

#### Acute Toxicity

#### Product Information

<b>Oral LD50</b>	Category 4. ATE = 300 - 2000 mg/kg.
<b>Dermal LD50</b>	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
<b>Vapor LC50</b>	Category 4. ATE = 10 - 20 mg/l. Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

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/m3 ( Rat ) 4 h
Water	-	-	-

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** Causes burns by all exposure routes

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Hydrogen peroxide	7722-84-1	Not listed	Not listed	A3	Not listed	A3
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed

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**IARC: (International Agency for Research on Cancer) IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen
- ACGIH: (American Conference of Governmental Industrial Hygienists)

**Mexico - Occupational Exposure Limits - Carcinogens Mexico - Occupational Exposure Limits - Carcinogens**

- A1 - Confirmed Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Confirmed Animal Carcinogen
- A4 - Not Classifiable as a Human Carcinogen
- A5 - Not Suspected as a Human Carcinogen

<b>Mutagenic Effects</b>	Mutagenic effects have occurred in experimental animals.
<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.
<b>Teratogenicity</b>	No information available.
<b>STOT - single exposure</b>	Respiratory system Central nervous system (CNS)
<b>STOT - repeated exposure</b>	None known
<b>Aspiration hazard</b>	No information available
<b>Symptoms / effects, both acute and delayed</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** No information available

### SECTION 12: Ecological information

#### Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hydrogen peroxide	EC50 2.5 mg/L/72h	LC50: 16.4 mg/L/96h (P.promelas)	Not listed	EC50 7.7 mg/L/24h

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available. Miscible with water

**Bioaccumulation/ Accumulation** No information available.

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**Mobility.** Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Hydrogen peroxide	-1.1

### SECTION 13: Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Tetrachloroethylene	U210	--

### SECTION 14: Transport information

#### DOT

**UN-No** UN2014  
**Proper Shipping Name** HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS  
**Hazard Class** 5.1  
**Packing Group** II

#### TDG

**UN-No** UN2014  
**Proper Shipping Name** HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 8  
**Packing Group** II

#### IATA

**UN-No** UN2014  
**Proper Shipping Name** HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 8  
**Packing Group** III

#### IMDG/IMO

**UN-No** UN2014  
**Proper Shipping Name** HYDROGEN PEROXIDE, AQUEOUS SOLUTION  
**Hazard Class** 5.1  
**Subsidiary Hazard Class** 8  
**Packing Group** II

### SECTION 15: Regulatory information

**All of the components in the product are on the following Inventory lists: X = listed International Inventories**

Component	CAS-No	DSL	NDS L	EINECS	PICC S	ENC S	AICS	IECSC	KECL
Hydrogen peroxide	7722-84-1	X	-	204-765-0	X	X	X	X	KE-20204
Water	7732-18-5	X	-	231-791-	X	X	X	X	KE-35400

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### U.S. Federal Regulations

**SARA 313** Not applicable

**SARA 311/312 Hazard Categories** See section 2 for more information  
**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable  
**OSHA Occupational Safety and Health Administration** Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Hydrogen peroxide	-	TQ: 7500lb

**CERCLA** This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Hydrogen peroxide	-	1000 lb

**California Proposition 65** This product contains the following proposition 65 chemicals

### U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Hydrogen peroxide	X	X	X	-	X
Water	-	-	X	-	-

### U.S. Department of Transportation

Reportable Quantity (RQ) : N  
 DOT Marine Pollutant : N  
 DOT Severe Marine Pollutant : N

### U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Component	DHS Chemical Facility Anti-Terrorism Standard
Hydrogen peroxide	Theft STQs - 400lb (concentration >=35%)

### Other International Regulations

**Mexico – Grade** No information available



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### SECTION 16: Other information: --

#### MANUFACTURERS / SUPPLIERS DATA

<b>Name of the firm</b>	<b>EPIGRAL LTD.,</b>	<b>Contact Person in Emergency:</b>
<b>Mailing Address</b>	CH1/CH2,GIDC Industrial Estate, Dahej Dist.: Bharuch, Gujarat (INDIA)	<b>UNITE HEAD</b>
<b>Telephone Nos.</b>	Fact.: 91-9909995940	
		<b>Rev No : 04 (31/08/2023)</b>

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