

# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION

**GHS Product identifier:** Hydrogen Peroxide, 3%

**Other means of identification**

**Product No.:** 5241, P006

**Recommended use:** For Laboratory, Research or Manufacturing Use.

**Limitations on use:** Not determined.

**Details of the supplier of the safety data sheet:**

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200  
Radnor, PA 19087

**Telephone:**

Customer Service: 855-282-6867

**Contact Person:** Product Information Compliance

**E-mail:** info@avantormaterials.com

**Emergency telephone:** CHEMTREC: 800-101-2201 (24/7)

## 2 HAZARDS IDENTIFICATION

**GHS classification:**

**Health Hazards:**

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Germ Cell Mutagenicity	Category 1B
Specific Target Organ Toxicity - Single Exposure (Oral)	Category 2(Lungs)

**GHS label elements:**

**Symbol(s):**



**Signal Words:** Danger

**Hazard Statement(s):** Causes skin irritation.  
Causes serious eye irritation.  
May cause genetic defects.  
May cause damage to organs.

**Precautionary Statements Prevention:**

Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.

**Response:** IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Call a POISON CENTER/doctor.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in classification':**

**Primary hazards:** No data available.

**Specific hazards:** No data available.

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

**Substance or Preparation:**

**General information:**

Chemical name	Concentration	CAS-No.	EC No.
Hydrogen peroxide	2.00 - 4.00%	7722-84-1	
Water	96.00 - 98.00%	7732-18-5	231-791-2

### 4 FIRST AID MEASURES

**General:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

**Inhalation:** Move to fresh air. Get medical attention if symptoms occur. If breathing stops, provide artificial respiration.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.

**Skin Contact:** Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

**Ingestion** Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

**Most important symptoms/effects, acute delayed:** Irritating to eyes, respiratory system and skin.

**Indication of immediate medical attention and special treatment needed, if necessary:** Treat symptomatically. Symptoms may be delayed.

### 5 FIRE-FIGHTING MEASURES

**Extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** None known.

<b>Specific hazard arising from the chemical:</b>	Contact with metals may evolve flammable hydrogen gas. Fire may produce irritating, corrosive and/or toxic gases. May intensify fire; oxidizer.
<b>Special fire fighting procedures:</b>	Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.
<b>Special protective action for fire fighters:</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6 ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions, protective equipment and emergency procedures:</b>	Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Environmental Precautions:</b>	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
<b>Methods and material for containment and cleaning up:</b>	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.
<b>Notification Procedures:</b>	Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

**7 HANDLING AND STORAGE**

<b>Precautions for safe handling:</b>	Use personal protective equipment as required. Do not breathe mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with eyes. Avoid contact with skin. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
<b>Condition for safe storage, including any incompatibilities:</b>	Do not store in metal containers. Keep in a cool, well-ventilated place. Store in a dry place. Store locked up.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>Appropriated engineering control measures:</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.
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**Occupational Exposure Limits:**

Chemical name	Type	Exposure Limit Values		Source
Hydrogen peroxide	TWA	1 ppm	1.4 mg/m3	Singapore. PELs. (Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order) (2006)

**Personal protective equipment (ppe)**

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator.

<b>Eye Protection:</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Hand Protection:</b>	Chemical resistant gloves
<b>Skin Protection:</b>	Wear suitable protective clothing.
<b>Hygiene measures:</b>	Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	0 °C
<b>Boiling Point:</b>	100 °C
<b>Flash Point:</b>	No data available.
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Flammability Limit - Upper (%)-:</b>	No data available.
<b>Flammability Limit - Lower (%)-:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density (air=1):</b>	No data available.
<b>Relative density:</b>	1.01 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Completely soluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Autoignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

## 10 STABILITY AND REACTIVITY

<b>Incompatible Materials:</b>	Strong oxidizing agents. Organic compounds. Reducing agents.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Excessive heat. Contact with incompatible materials.
<b>Hazardous Decomposition Products:</b>	None under normal conditions.

## 11 TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Inhalation:</b>	May be harmful if inhaled. Mist or vapors may cause irritation.
<b>Ingestion:</b>	May be harmful if swallowed. May irritate and cause stomach pain, vomiting and diarrhoea.
<b>Skin Contact:</b>	Causes skin irritation.
<b>Eye contact:</b>	Causes serious eye irritation.

### Information on toxicological effects

#### Acute toxicity

##### Oral

**Product:** ATEmix (Rat): 17,342.5 mg/kg

##### Dermal

**Product:** ATEmix (Rabbit): 101.5 g/kg

##### Inhalation

**Product:** Not classified for acute toxicity based on available data.

##### Repeated dose toxicity

**Product:** No data available.

##### Skin Corrosion/Irritation:

**Product:** Causes skin irritation.

##### Serious Eye Damage/Eye Irritation:

**Product:** Causes serious eye irritation.

##### Respiratory or Skin Sensitization:

**Product:** Not a skin nor a respiratory sensitizer.

#### Germ Cell Mutagenicity

##### In vitro

**Product:** May cause genetic defects.

##### In vivo

**Product:** May cause genetic defects.

#### Carcinogenicity

**Product:** This substance has no evidence of carcinogenic properties.

#### Reproductive toxicity

**Product:** No components toxic to reproduction

#### Specific Target Organ Toxicity - Single Exposure

**Product:** Oral: Lungs

##### Specified substance(s)

Hydrogen peroxide	No data available.
Water	No data available.

#### Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

##### Specified substance(s)

Hydrogen peroxide No data available.  
Water No data available.

**Aspiration Hazard**

**Product:** Not classified

**Metabolism:** No data available.

**Other effects:** None known.

**12 ECOLOGICAL INFORMATION**

**General information:** Not applicable

**Ecotoxicity**

**Acute toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Hydrogen peroxide NOAEL (Pimephales promelas, 96 h): 5 mg/l  
LC 50 (Pimephales promelas, 96 h): 16.4 mg/l  
LC 50 (Ictalurus punctatus, 96 h): 37.4 mg/l  
Water LC 50 (Fish, 96 h): > 100 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Hydrogen peroxide NOAEL (Daphnia pulex, 48 h): 1 mg/l  
LC 50 (Daphnia pulex, 48 h): 2.4 mg/l  
Water No data available.

**Chronic Toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Hydrogen peroxide No data available.  
Water NOEC (Fish): > 1 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Hydrogen peroxide LOAEL (Daphnia magna, 21 d): 1.25 mg/l  
NOAEL (Daphnia magna, 21 d): 0.63 mg/l  
Water No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s):**

Hydrogen peroxide No data available.  
Water No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Product:** No data available on bioaccumulation.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Hydrogen peroxide No data available.  
Water No data available.

**Results of PBT and vPvB assessment:** Not available.

**Other adverse effects:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**13 Disposal considerations**

**Disposal methods:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**14 TRANSPORT INFORMATION**

**IMDG - International Maritime Dangerous Goods Code**  
Not regulated.

**IATA**  
Not regulated.

**15 REGULATORY INFORMATION**

**Applicable regulations:**  
Workplace Safety and Health Act  
Act on the Control of Transboundary Movements of Hazardous Wastes and their Disposal  
Environmental Public Health Act  
Environmental Public Health (Toxic Industrial Waste) Regulations  
Singapore. Hazardous Substances Control List (Environmental Protection and Management Act, Second Schedule, Part 1, Control of Hazardous Substances)  
Environmental Pollution Control (Hazardous Substances) Regulations  
Singapore. PELs. (Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order)

**16 OTHER INFORMATION**

**Inventory Status**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory

**Revision Information:** Not relevant.  
**Issue Date:** 03-09-2020  
**SDS No.:**

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