

# SAFETY DATA SHEET

## 1. Identification of the hazardous chemical and of the supplier

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

### Other means of identification

**Product No.:** 5241, P006

### Recommended use of the chemical and restrictions on use

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

**Recommended restrictions:** Not determined.

### Details of the supplier of the safety data sheet

Company Name: Avantor Performance Materials, LLC  
 Address: 100 Matsonford Rd, Suite 200  
 Radnor, PA 19087  
 Telephone: Customer Service: 855-282-6867  
 Fax:  
 Contact Person: Product Information Compliance  
 E-mail: info@avantormaterials.com

**Emergency telephone number:** CHEMTREC: 60-392125794 (24/7)

## 2. Hazard(s) identification

### GHS classification of substance or mixture, and national or regional information:

#### Health Hazards

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

#### Unknown toxicity- Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, vapor	2 %
Acute toxicity, inhalation, dust or mist	2 %

#### Unknown toxicity- Environment

Acute hazards to the aquatic environment	0 %
Chronic hazards to the aquatic environment	2 %

### GHS label elements

#### Hazard symbol(s):



**Signal Word:** Danger

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

**Precautionary statement(s):**

**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 GHS classification:** None known.

**3. Composition and information of the ingredients of the hazardous chemical**

**Mixtures**

Chemical Identity	Common name and synonyms	CAS number	Concentration*
Hydrogen peroxide		7722-84-1	2 - 4%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

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

**Description of necessary first-aid measures**

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

**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.

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

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

**Most important symptoms/effects, acute and delayed**

**Symptoms:** Irritating to eyes, respiratory system and skin.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically. Symptoms may be delayed.

**5. Fire-fighting measures**

**General Fire Hazards:** In case of fire and/or explosion do not breathe fumes.

**Suitable (and unsuitable) extinguishing media**

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

**Unsuitable extinguishing media:** None known.

**Specific hazards arising from the chemical:** Contact with metals may evolve flammable hydrogen gas. Fire may produce irritating, corrosive and/or toxic gases. May intensify fire; oxidizer.

**Special protective action for fire fighters**

**Special fire fighting procedures:** 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.

**Special protective equipment for fire-fighters:** 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**

**Personal precautions, protective equipment and emergency procedures:** 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.

**Environmental Precautions:** 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.

**Methods and material for containment and cleaning up:** 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.

**Notification Procedures:** 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**

**Precautions to ensure safe handling:** 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.

**Conditions for safe storage, including any incompatibilities:**

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**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Hydrogen peroxide	Time Weighted Average (TWA):	1 ppm 1.4 mg/m3	Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations)03 2000
Hydrogen peroxide	TWA	1 ppm	US. ACGIH Threshold Limit Values (2011)

**Biological Limit Values**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls:**

No data available.

**Individual protection measures, such as personal protective equipment**

**General information:**

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.

**Eye/face protection:**

Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection**

**Hand Protection:**

Chemical resistant gloves

**Other:**

Wear suitable protective clothing.

**Respiratory Protection:**

In case of inadequate ventilation use suitable respirator.

**Hygiene measures:**

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**

**Physical state:**

Liquid

**Form:**

Liquid

**Color:**

Colorless

**Odor:**

Odorless

**Odor threshold:**

No data available.

**pH:**

No data available.

**Melting point/freezing point:**

0 °C

<b>Initial boiling point and boiling range:</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>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</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>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<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>Incompatible Materials:</b>	Strong oxidizing agents. Organic compounds. Reducing agents.
<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>Skin Contact:</b>	Causes skin irritation.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	May be harmful if swallowed. May irritate and cause stomach pain, vomiting and diarrhoea.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	ATEmix (Rat): 17,342.5 mg/kg

#### Dermal

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

**Inhalation Product:** No data available.

**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.

**ACGIH Sensitization**

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

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**ACGIH Carcinogen List:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro Product:** May cause genetic defects.

**In vivo Product:** May cause genetic defects.

**Reproductive toxicity Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure Product:** Oral: Lungs

**Specific Target Organ Toxicity - Repeated Exposure Product:** No data available.

**Aspiration Hazard Product:** Not classified

**Other effects:** None known.

**12. Ecological information**

**Ecotoxicity**

**Acute hazards to the aquatic environment**

**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

**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

**Chronic hazards to the aquatic environment**

**Fish**

**Product:**      No data available.

**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

**Toxicity to Aquatic Plants**

**Product:**      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**

**Bioconcentration Factor (BCF)**

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

**Partition Coefficient n-octanol / water (log Kow)**

**Product:**      No data available.

**Mobility**

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

**Known or predicted distribution to environmental compartments**

Hydrogen peroxide      No data available.

**Known or predicted distribution to environmental compartments**

Hydrogen peroxide      No data 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 information**

**Disposal methods**

**Disposal instructions:** 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.

**Contaminated Packaging:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

#### 14. Transport information

**ADR**

Not regulated.

**IATA**

Not regulated.

**IMDG**

Not regulated.

#### 15. Regulatory information

**Malaysia. Medical Surveillance Chemicals, Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health): Schedule 2**

Not Regulated

**Malaysia. Prohibited Use of Substances [Occupational Safety and Health (Prohibition of Use of Substance) Order]**

Not Regulated

**Malaysia. Controlled Precursors Subject to Conditional Exports (Customs (Prohibition of Exports) Order 2012, Second Schedule**

Not Regulated

**Malaysia. Controlled Precursors Subject to Conditional Imports (Customs (Prohibition of Imports) Order 2012, Part I of Second Schedule)**

Not Regulated

**Malaysia. CWC. Chemical Weapons Convention Act 2005, (Schedules 1-3)**

Not Regulated

**Malaysia. Ozone Depleting Substances (ODS) (Environmental Quality (Prohibition on the Use of CFC and Other Gases as Propellants and Blowing Agents) Order 1993)**

Not Regulated

**Malaysia. Lists of Halon Management (Environmental Quality (Halon Management) Regulation 1999)**

Not Regulated

**Malaysia. Refrigerant Hazardous Substance (Environmental Quality (Refrigerant Management) Regulation 1999)**

Not Regulated

**Malaysia. Active Ingredients of Pesticide Product (Pesticide Act 1974, First Schedule), as amended**

Not Regulated

#### International regulations

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable



**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

**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

**16. Other information, including date of preparation or last revision**

**Issue Date:** 03-09-2020

**Revision Date:** No data available.

**Version #:** 1.0

**Source of information:** Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.

**Further Information:** No data available.

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