

# **SAFETY DATA SHEET**

Creation Date 09-Jun-2009 Revision Date 10-Apr-2019 Revision Number 1

1. Identification

Product Name Hydrogen Peroxide 6%

Cat No. : C4373

Synonyms Hydrogen dioxide; Hyperoxide (USP/Certified)

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company Emergency Telephone Number

Post Apple Scientific, inc.

CHEMTREC®, Inside the USA: 800-424-9300

CHEMTREC®, Outside the USA: 001-703-527-3887

North East, PA 16428 Tel: 814-725-3330

# 2. Hazard(s) identification

### Classification

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

Serious Eye Damage/Eye Irritation Category 2

Label Elements

#### Signal Word

Danger

### **Hazard Statements**

Causes serious eye irritation



Precautionary Statements Prevention

Wash face, hands and any exposed skin thoroughly after handling

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

#### Skin

IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse

#### **Eyes**

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

### Hazards not otherwise classified (HNOC)

None identified

# 3. Composition / information on ingredients

Component	CAS-No	Weight %		
Water	7732-18-5	93-95		
Hydrogen peroxide	7722-84-1	6		
Acetic acid	64-19-7	<1		

## 4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Obtain medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Get medical attention

immediately if symptoms occur.

**Inhalation** Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if

symptoms occur.

**Ingestion** Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects C Notes to Physician T

Causes eye burns.
Treat symptomatically

## Fire-fighting measures

Unsuitable Extinguishing Media No information available

Flash Point No information available Method - No information available

**Autoignition Temperature** 

**Explosion Limits** 

No information available

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

### **Specific Hazards Arising from the Chemical**

Non-combustible. Containers may explode when heated.

### **Hazardous Combustion Products**

oxygen

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA** 

Health **Flammability** Instability Physical hazards N/A

## Accidental release measures

**Personal Precautions** 

Ensure adequate ventilation. Use personal protective equipment.

**Environmental Precautions** 

Should not be released into the environment. See Section 12 for additional ecological

information. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Up

7. Handling and storage

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, Handling

eyes and clothing. Avoid ingestion and inhalation.

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from Storage

direct sunlight.

# 8. Exposure controls / personal protection

#### **Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen peroxide	TWA: 1 ppm	(Vacated) TWA: 1 ppm (Vacated) TWA: 1.4 mg/m³ TWA: 1 ppm TWA: 1.4 mg/m³	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m³
Acetic acid	TWA: 10 ppm STEL: 15 ppm	(Vacated) TWA: 10 ppm (Vacated) TWA: 25 mg/m³ TWA: 10 ppm TWA: 25 mg/m³	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m³ STEL: 15 ppm STEL: 37 mg/m³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Hydrogen peroxide	TWA: 1 ppm	TWA: 1 ppm	TWA: 1 ppm
	TWA: 1.4 mg/m <sup>3</sup>	TWA: 1.5 mg/m <sup>3</sup>	
		STEL: 2 ppm	
		STEL: 3 mg/m <sup>3</sup>	
Acetic acid	TWA: 10 ppm	TWA: 10 ppm	TWA: 10 ppm
	TWA: 25 mg/m <sup>3</sup>	TWA: 25 mg/m <sup>3</sup>	STEL: 15 ppm
	STEL: 15 ppm	STEL: 15 ppm	
	STEL: 37 mg/m <sup>3</sup>	STEL: 37 mg/m <sup>3</sup>	

<u>Legend</u>

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

**Engineering Measures** Ensure that eyewash stations and safety showers are close to the workstation location.

Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment** 

Wear appropriate protective eyeglasses or chemical safety goggles as described by **Eye/face Protection** 

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

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

**Respiratory Protection** No protective equipment is needed under normal use conditions.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

Physical StateLiquidAppearanceClearOdorSlight

Odor Threshold<br/>pHNo information available<br/>No information available

Melting Point/Range 0 °C / 32 °F

Boiling Point/Range100 °C / 212 °F @ 760mmHgFlash PointNo information availableEvaporation RateNo information available

Flammability (solid,gas)

Not applicable

Flammability or explosive limits

Upper<br/>LowerNo data available<br/>No data availableVapor Pressure23.3 mmHg @  $30^{\circ}$ CVapor Density> 1.00 (Air = 1.0)

Relative Density 1.00

Solubility

Partition coefficient; n-octanol/water

Autoignition Temperature

Soluble in water
No data available
No information available

Decomposition TemperatureNo information availableViscosityNo information available

Molecular Formula H2 O2 Molecular Weight 34

# 10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Light sensitive.

Conditions to Avoid Incompatible products. Excess heat. Exposure to light.

Incompatible Materials Powdered metals, Powdered metal salts

Hazardous Decomposition Products oxygen

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

## 11. Toxicological information

**Acute Toxicity** 

#### **Product Information**

**Component Information** 

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)	2 g/m³(Rat)4 h
Acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h

Toxicologically Synergistic No information available

Products

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

Irritation Severe eye irritant

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Sensitization No information available

Carcinogenicity

Hygienists)

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

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed				
Hydrogen peroxide	7722-84-1	Not listed	Not listed	A3	Not listed	A3
Acetic acid	64-19-7	Not listed				

IARC: (International Agency for Research on Cancer)

ACGIH: (American Conference of Governmental Industrial

Mexico - Occupational Exposure Limits - Carcinogens

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

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

A1 - Known Human Carcinogen A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

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

No information available **Mutagenic Effects** 

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

STOT - single exposure None known STOT - repeated exposure None known

**Aspiration hazard** No information available

Symptoms / effects,both acute and No information available

delayed

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** See actual entry in RTECS for complete information.

# 12. Ecological information

### **Ecotoxicity**

Contains a substance which is:. Toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hydrogen peroxide	EC50 2.5 mg/L/72h	LC50: 16.4 mg/L/96h	Not listed	EC50 7.7 mg/L/24h
	_	(P.promelas)		_
Acetic acid	-	Pimephales promelas: LC50	Photobacterium	EC50 = 95 mg/L/24h
		= 88 mg/L/96h	phosphoreum: EC50 = 8.8	
		Lepomis macrochirus: LC50	mg/L/15 min	
		= 75 mg/L/96h	Photobacterium	
		phosphoreum: EC50 = 8.8		
		mg/L/25 min		
		Photobacterium		
			phosphoreum: EC50 = 8.8	
			ma/L/5 min	

**Persistence and Degradability Bioaccumulation/ Accumulation**  Soluble in water Persistence is unlikely based on information available.

No information available.

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

Component	log Pow
Hydrogen peroxide	-1.1
Acetic acid	-0.2

## 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.

# 14. Transport information

DOT

UN2984, Hydrogen Peroxide, aqueous solutions, 5.1. III

# 15. Regulatory information

#### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Water	Х	Χ	-	231-791-2	-		Χ	-	Χ	Χ	Χ
Hydrogen peroxide	Х	Χ	-	231-765-0	-		Χ	Χ	Х	Х	Χ
Acetic acid	Х	Х	-	200-580-7	-		Χ	Χ	Х	Х	Χ

### Legend:

- X Listed
- E Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P Indicates a commenced PMN substance
- R Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Y1 Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

#### U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

#### SARA 311/312 Hazardous Categorization

Acute Health Hazard Yes
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act Not applicable

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Acetic acid	X	5000 lb	-	-

Clean Air Act Not applicable

**OSHA** Occupational Safety and Health Administration Not applicable

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

#### **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	
Acetic acid	5000 lb	-	

**California Proposition 65** 

This product does not contain any Proposition 65 chemicals

#### State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
Hydrogen peroxide	X	Х	X	-	Х
Acetic acid	X	X	Х	-	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 contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Hydrogen peroxide	2000 lb STQ (concentration of at least 30%)

### **Other International Regulations**

Mexico - Grade No information available

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D2B Toxic materials



# 16. Other information

Prepared By Regulatory Affairs

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Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Harmonized System of Classification and Labeling of Chemicals (GHS)

**Disclaimer** 

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The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of SDS** 

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