

# Part of Thermo Fisher Scientific

# **SAFETY DATA SHEET**

Creation Date 09-Jun-2009

Revision Date 10-Apr-2014

**Revision Number 1** 

### 1. Identification

**Product Name** 

Hydrogen Peroxide 3%

Cat No.:

H312-4; H312-500; H312P-4; H312SAM-1; H312SAM-2; H312SAM-3;

H324-500; XX32455GAL; XXH31212OGAL; XXH31255GA

**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

Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100 **Emergency Telephone Number** 

CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887

# 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

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

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	97
Hydrogen peroxide	7722-84-1	3
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

Notes to Physician

Causes eye burns.

Treat symptomatically

### 5. 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 2 Flammability

Instability

Physical hazards N/A

## 6. Accidental release measures

Personal Precautions
Environmental Precautions

Ensure adequate ventilation. Use personal protective equipment.

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

Handling

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

eyes and clothing. Avoid ingestion and inhalation.

Storage

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

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: 1.4 mg/m³	TWA: 1 ppm TWA: 1.5 mg/m³ STEL: 2 ppm STEL: 3 mg/m³	TWA: 1 ppm
Acetic acid	TWA: 10 ppm TWA: 25 mg/m³ STEL: 15 ppm STEL: 37 mg/m³	TWA: 10 ppm TWA: 25 mg/m³ STEL: 15 ppm STEL: 37 mg/m³	TWA: 10 ppm STEL: 15 ppm

### Legend

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

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

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 State** Liquid Clear **Appearance** Odor Slight

**Odor Threshold** No information available No information available pН

. Melting Point/Range 0 °C / 32 °F

100 °C / 212 °F @ 760mmHg **Boiling Point/Range** 

No information available Flash Point **Evaporation Rate** No information available

Not applicable Flammability (solid,gas)

Flammability or explosive limits

Upper No data available Lower No data available 23.3 mmHg @ 30°C **Vapor Pressure Vapor Density** > 1.00 (Air = 1.0)

1.00 **Relative Density** Solubility Soluble in water No data available Partition coefficient; n-octanol/water No information available **Autoignition Temperature** 

No information available **Decomposition Temperature** Viscosity No information available

H2 O2 Molecular Formula

34 Molecular Weight

## 10. Stability and reactivity

None known, based on information available Reactive Hazard

Stability Light sensitive.

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

Powdered metals, Powdered metal salts **Incompatible Materials** 

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

2 g/m³ (Rat) 4 h
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

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
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)

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Group 1 - Carcinogenic to Humans

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

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

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

**Mutagenic Effects** 

No information available

**Reproductive Effects** 

No information available.

**Developmental Effects** 

No information available.

**Teratogenicity** 

No information available.

STOT - single exposure STOT - repeated exposure

None known 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

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 (P.promelas)	Not listed	EC50 7.7 mg/L/24h
Acetic acid	S <del>=</del>	Pimephales promelas: LC50 = 88 mg/L/96h Lepomis macrochirus: LC50 = 75 mg/L/96h	phosphoreum: EC50 = 8.8	EC50 = 95 mg/L/24h

Persistence and Degradability

Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/Accumulation** 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	Not regulated	
DOT TDG	Not regulated	
IATA_	Not regulated	
IMDG/IMO	Not regulated	
	15. Regulatory information	

#### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Water	Х	Х	(#	231-791-2			Х	4	Х	Х	Х
Hydrogen peroxide	Х	Х	- (-	231-765-0	9		Х	Х	Х	Х	Х
Acetic acid	Х	Х	7 <del>2</del>	200-580-7	-		Х	Х	Х	Х	Х

#### 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	×	5000 lb	- # E	(4).

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	095	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	S#3		X	•	
Hydrogen peroxide	X	Х	Х		X
Acetic acid	Х	X	X	<u></u>	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

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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

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**