

## SAFETY DATA SHEET

Creation Date 09-Jun-2009

Revision Date 13-Aug-2021

Revision Number 6

### 1. Identification

|                             |   |
|-----------------------------|---|
| <b>Product Name</b>         | <b>Hydrogen Peroxide 3%</b>   |
| <b>Cat No. :</b>            | <b>H312-4; H312-500; H312P-4; H312SAM-1; H312SAM-2; H312SAM-3;<br/>H324-500; XX32455GAL; XXH31212OGAL; XXH31255GA;<br/>XXH312200LI; NC1552940</b> |
| <b>Synonyms</b>             | Hydrogen dioxide; Hyperoxide (USP/Certified)  |
| <b>Recommended Use</b>      | Laboratory chemicals.   |
| <b>Uses advised against</b> | Food, drug, pesticide or biocidal product use.  |

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

##### Company

Fisher Scientific Company  
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

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### Label Elements

None required

#### Hazards not otherwise classified (HNOC)

None identified

### 3. Composition/Information on Ingredients

| Component         | CAS No    | Weight % |
|-------------------|-----------|----------|
| Water             | 7732-18-5 | 96 - 97  |
| Hydrogen peroxide | 7722-84-1 | 3        |
| Acetic acid       | 64-19-7   | <1       |

### 4. First-aid measures

|  |  |
|--|--|
| <b>General Advice</b>                      | If symptoms persist, call a physician.   |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention. |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.                            |
| <b>Inhalation</b>                          | Remove to fresh air. Get medical attention immediately if symptoms occur.  |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.  |
| <b>Most important symptoms and effects</b> | None reasonably foreseeable.   |
| <b>Notes to Physician</b>                  | Treat symptomatically  |

### 5. Fire-fighting measures

|   |                          |
|---|--------------------------|
| <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</b>                 |                          |
| <b>Upper</b>                            | No data available        |
| <b>Lower</b>                            | No data available        |
| <b>Sensitivity to Mechanical Impact</b> | No information available |
| <b>Sensitivity to Static Discharge</b>  | 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**  
1

**Flammability**  
0

**Instability**  
1

**Physical hazards**  
N/A

### 6. Accidental release measures

|                                  |  |
|----------------------------------|--|
| <b>Personal Precautions</b>      | Ensure adequate ventilation. Avoid contact with skin and eyes. |
| <b>Environmental Precautions</b> | Should not be released into the environment.                   |

**Methods for Containment and Clean Up** Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

## 7. Handling and storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid contact with skin, eyes or clothing.

**Storage** Keep container tightly closed in a dry and well-ventilated place. Keep cool and protect from sunlight. Contents may develop pressure upon prolonged storage. Containers should be vented periodically in order to overcome pressure buildup. Do not store in metal containers.

## 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<br>(Vacated) TWA: 1.4 mg/m <sup>3</sup><br>TWA: 1 ppm<br>TWA: 1.4 mg/m <sup>3</sup> | IDLH: 75 ppm<br>TWA: 1 ppm<br>TWA: 1.4 mg/m <sup>3</sup>   | TWA: 1 ppm                  |
| Acetic acid       | TWA: 10 ppm<br>STEL: 15 ppm | (Vacated) TWA: 10 ppm<br>(Vacated) TWA: 25 mg/m <sup>3</sup><br>TWA: 10 ppm<br>TWA: 25 mg/m <sup>3</sup> | IDLH: 50 ppm<br>TWA: 10 ppm<br>TWA: 25 mg/m <sup>3</sup><br>STEL: 15 ppm<br>STEL: 37 mg/m <sup>3</sup> | TWA: 10 ppm<br>STEL: 15 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** None under normal use conditions.

### 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

|   |                           |
|---|---------------------------|
| <b>Physical State</b>                   | Liquid                    |
| <b>Appearance</b>                       | Clear                     |
| <b>Odor</b>                             | Slight                    |
| <b>Odor Threshold</b>                   | No information available  |
| <b>pH</b>                               | No information available  |
| <b>Melting Point/Range</b>              | 0 °C / 32 °F              |
| <b>Boiling Point/Range</b>              | 100 °C / 212 °F @ 760mmHg |
| <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> |                           |
| <b>Upper</b>                            | No data available         |

|   |                          |
|---|--------------------------|
| <b>Lower</b>                                  | No data available        |
| <b>Vapor Pressure</b>                         | 23.3 mmHg @ 30°C         |
| <b>Vapor Density</b>                          | > 1.00 (Air = 1.0)       |
| <b>Specific Gravity</b>                       | 1.00                     |
| <b>Solubility</b>                             | miscible                 |
| <b>Partition coefficient; n-octanol/water</b> | No data available        |
| <b>Autoignition Temperature</b>               | No information available |
| <b>Decomposition Temperature</b>              | No information available |
| <b>Viscosity</b>                              | No information available |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available        |
| <b>Stability</b>                        | Light sensitive. Decomposes on exposure to light. |
| <b>Conditions to Avoid</b>              | Exposure to light. Heat. Incompatible products.   |
| <b>Incompatible Materials</b>           | Metals  |
| <b>Hazardous Decomposition Products</b> | Oxygen  |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.          |
| <b>Hazardous Reactions</b>              | None under normal processing.                     |

## 11. Toxicological information

### Acute Toxicity

#### Product Information

##### Oral LD50

Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

##### Dermal LD50

Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

##### Vapor LC50

Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

#### Component Information

| Component         | LD50 Oral   | LD50 Dermal            | LC50 Inhalation                           |
|-------------------|---|------------------------|---|
| Water             | -   | -                      | -   |
| Hydrogen peroxide | 376 mg/kg ( Rat ) (90%)<br>910 mg/kg ( Rat ) (20-60%)<br>1518 mg/kg ( Rat ) (8-20% sol) | >2000 mg/kg ( Rabbit ) | LC50 = 2000 mg/m <sup>3</sup> ( Rat ) 4 h |
| Acetic acid       | 3310 mg/kg ( Rat )  | -                      | > 40 mg/L ( Rat ) 4 h                     |

**Toxicologically Synergistic Products** No information available

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

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** There are no known carcinogenic chemicals in this product.

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

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

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

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** None known  
**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

| 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       | -                 | Pimephales promelas: LC50 = 88 mg/L/96h<br>Lepomis macrochirus: LC50 = 75 mg/L/96h | Photobacterium phosphoreum: EC50 = 8.8 mg/L/15 min<br>Photobacterium phosphoreum: EC50 = 8.8 mg/L/25 min<br>Photobacterium phosphoreum: EC50 = 8.8 mg/L/5 min | EC50 = 95 mg/L/24h |

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

**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  
**TDG** Not regulated

IATA Not regulated  
 IMDG/IMO Not regulated

## 15. Regulatory information

### United States of America Inventory

| Component         | CAS No    | TSCA | TSCA Inventory notification - Active/Inactive | TSCA - EPA Regulatory Flags |
|-------------------|-----------|------|---|-----------------------------|
| Water             | 7732-18-5 | X    | ACTIVE  | -                           |
| Hydrogen peroxide | 7722-84-1 | X    | ACTIVE  | -                           |
| Acetic acid       | 64-19-7   | X    | ACTIVE  | -                           |

#### Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

### International Inventories

China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Japan (ISHL), Japan (ISHL).

| Component         | CAS No    | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|-------------------|-----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Water             | 7732-18-5 | X   | -    | 231-791-2 | X     | X    |      | X    | X     | KE-35400 |
| Hydrogen peroxide | 7722-84-1 | X   | -    | 231-765-0 | X     | X    | X    | X    | X     | KE-20204 |
| Acetic acid       | 64-19-7   | X   | -    | 200-580-7 | X     | X    | X    | X    | X     | X        |

### U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

#### CWA (Clean Water Act)

| 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.

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

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------|---------------|------------|--------------|----------|--------------|
| Water     | -             | -          | X            | -        | -            |

|                   |   |   |   |   |   |
|-------------------|---|---|---|---|---|
| Hydrogen peroxide | X | X | X | - | X |
| Acetic acid       | X | X | X | - | X |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product contains the following DHS chemicals:

**Legend** - STQs = Screening Threshold Quantities, APA = A placarded amount

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

**Other International Regulations****Mexico - Grade** No information available

## 16. Other information

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Thermo Fisher Scientific  
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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 in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**