1. IDENTIFICATION

Product code: HY115
Product Name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC

Other means of identification
Synonyms: Hydrogen Peroxide Solution
CAS #: Mixture
RTECS #: MX0899500 (Hydrogen Peroxide, 20% to 60%)
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
Uses advised against: No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA  90248
(310) 516-8000
Order Online At: https://www.spectrumchemical.com

Emergency telephone number: Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

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

Acute toxicity - Oral Category 4
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Oxidizing liquids Category 2

Label elements
Personnel Hazard

Hazard statements
Causes severe skin burns and eye damage
Harmful if swallowed
May intensify fire; oxidizer

Other hazards
May be harmful in contact with skin
May be harmful if inhaled
May contain gas under pressure

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep/Store away from clothing/ .? /combustible materials
Take any precaution to avoid mixing with combustibles .?

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see .? on this label)
IN CASE OF FIRE: Use water to extinguish. Do not use dry chemicals or foams. CO₂ or Halon may provide limited control.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting

Product code: HY115

Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>64-70</td>
<td>*</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>7722-84-1</td>
<td>30-36</td>
<td>*</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice:
Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact:
Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Eye Contact:
Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Inhalation:
Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion:
Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms: Causes severe skin burns. Skin contact may result in redness, pain, inflammation, itching, scaling. Causes eye damage. Causes eye burns. Inflammation of the eye is characterized by redness, watering and itching. Moderate irritant to mucous membranes on inhalation. May cause irritation of respiratory tract. Coughing. Choking sensation. Dyspnea (Shortness of breath and difficulty breathing).

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water. CO2 may be of no value in extinguishing fires involving oxidizers and may only provide limited control.


Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards:

- Oxidizer. Keep away from combustible materials (wood, paper, oil, clothing, etc.)
- The product is not flammable, but it may cause fire when in contact with other material
- Contact with combustible or organic materials may cause fire
- Container explosion may occur under fire conditions or when heated
- Hydrogen peroxide mixed with magnesium and a trace of magnesium dioxide will ignite immediately
- Soluble fuels (acetone, ethanol, glycerol) will detonate on a mixture with peroxide over 30% concentration, the violence increasing with concentration
- Explosive with acetic acid, acetic anhydride, acetone, alcohols, carboxylic acids, nitrogen containing bases, As2S3, Cl2 + KOH, FeS, FeSO4 + 2 methylypyridine + H2SO4, nitric acid, potassium permanganate, P2O5, H2Se, Alcohols + H2SO4, Alcohols + tin chloride, Antimoy trisulfide, chlorosulfonic acid, Aromatic hydrocarbons + trifluoroacetic acid, Azeliac acid + sulfuric acid (above 45 C), Benzenesulfonic anhydride, tert-butanol + sulfuric acid, Hydrazine, Sulfuric acid, Sodium iodate, Tetrahydrothiophene, Thiodiglycol, Mercurous oxide, mercuric oxide, Lead dioxide, Lead oxide, Manganese dioxide, Lead sulfide, Gallium + HCl, Ketenes + nitric acid, Iron (II) sulfate + 2-methylpyridine + sulfuric acid, Iron (II) sulfate + nitric acid, + sodium carboxymethylcellulose (when evaporated), Vinyl acetate, trioxane, water + oxygenated compounds (eg: acetaldehyde, acetic acid, acetone, ethanol, formaldehyde, formic acid, methanol, 2-propanol, propionaldehyde), organic compounds. Beware: Many mixtures of hydrogen peroxide and organic materials may not explode upon contact. However, the resulting combination is detonatable either upon catching fire or by impact.

ANOTHER SOURCE OF HYDROGEN PEROXIDE EXPLOSIONS IS FROM SEALING THE MATERIAL IN STRONG CONTAINERS. UNDER SUCH CONDITIONS EVEN GRADUAL DECOMPOSITION OF HYDROGEN PEROXIDE TO WATER + 1/2 OXYGEN CAN CAUSE LARGE PressURES TO BUILD UP IN THE CONTAINERS WHICH MAY BURST EXPLOSIVELY

Special Protective Actions for Firefighters

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
Specific Methods: For large fires, flood fire area with water from a distance. DO NOT use combustible materials such as sawdust.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Keep combustibles (wood, paper, oil, clothing, etc.) away from spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Dilute with water. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Keep away from combustible material. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep tightly closed in a dry, cool and well-ventilated place. Keep refrigerated. Keep at temperatures between 2 and 8 °C. Do not store near combustible materials. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:
Incompatible with reducing materials, alkalies, ethers (dioxane, furfuran, tetrahydrofuran), Metals (eg. potassium, sodium lithium, iron, copper, brass, bronze, chromium, zinc, lead, silver, nickel, manganese, platinum, cobalt, iridium, gold, tungsten, osmium, palladium), metal oxides (eg. cobalt oxide, iron oxide, lead oxide, lead hydroxide, manganese oxide), metal salts (eg. calcium permanganate, salts of iron), asbestos, vanadium, molybdeum, triethylamine, palladium, sodium pyrophosphate, carboxylic acids, cyclopentadiene, formic acid, chlorosulfonic acid, carboxylic acids, acetic acid, nitric acid, rust, ketones, sodium carbonate, sodium borate, aniline, mercurous chloride, sodium pyrophosphate, hexavalent chromium compounds, tetrahydrofuran, sodium fluoride, potassium permanganate, urea, manganese dioxide, hydrogen selenide, charcoal, coal, sodium borate, cyclopentadiene, glycerine, cyanides (potassium, cyanide, sodium cyanide), nitrogen compounds.

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**National occupational exposure limits**

**United States**

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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<tbody>
<tr>
<td>Water 7732-18-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen peroxide  7722-84-1</td>
<td>1 ppm TWA</td>
<td>= 1 ppm TWA</td>
<td>= 1 ppm TWA</td>
<td>None</td>
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<table>
<thead>
<tr>
<th>Component</th>
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<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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<td>Water 7732-18-5</td>
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<td>None</td>
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<td>None</td>
</tr>
<tr>
<td>Hydrogen peroxide  7722-84-1</td>
<td>= 1 ppm TWA</td>
<td>= 1 ppm TWA</td>
<td>1 ppm TWA</td>
<td>1 ppm TWAEV</td>
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</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water 7732-18-5</td>
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</tr>
<tr>
<td>Hydrogen peroxide  7722-84-1</td>
<td>1.4 mg/m³ TWA</td>
<td>= 1 ppm TWA</td>
</tr>
</tbody>
</table>

**Canada**

**Australia and Mexico**

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

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

**Personal Protective Equipment**

- **Eye protection:** Face-shield. or. Goggles.
- **Skin and body protection:** Chemical resistant protective suit. Gloves. Boots.
- **Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- **Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>Liquid</td>
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<tr>
<td>Flashpoint (°C/°F):</td>
<td>No information available</td>
<td>Flash point (°C):</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower Explosion Limit (%):</td>
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<td>Upper Explosion Limit (%):</td>
<td>No information available</td>
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<tr>
<td>Melting point/range(°C/°F):</td>
<td>-33°C/ -27.4°F</td>
<td>Boiling point/range(°C/°F):</td>
<td>108°C/ 226.4°F</td>
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<td>Bulk density:</td>
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<td>Density (g/cm3):</td>
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<tr>
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<tr>
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<td>No information available</td>
<td>Odor threshold (ppm):</td>
<td>No information available</td>
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<tr>
<td>Viscosity:</td>
<td>No information available</td>
<td>Miscibility:</td>
<td>No information available</td>
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<tr>
<td>Formula:</td>
<td>H2O2</td>
<td>Solubility:</td>
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<td>Molecular/Formula weight:</td>
<td>34.01 g/mol</td>
<td>Flavor:</td>
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<tr>
<td>Flashpoint (°C/°F):</td>
<td>No information available</td>
<td>Flammability:</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower Explosion Limit (%):</td>
<td>No information available</td>
<td>Upper Explosion Limit (%):</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/range(°C/°F):</td>
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</tr>
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<td>No information available</td>
<td>Odor threshold (ppm):</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>No information available</td>
<td>Miscibility:</td>
<td>No information available</td>
</tr>
<tr>
<td>Formula:</td>
<td>H2O2</td>
<td>Solubility:</td>
<td>Easily soluble in cold water</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Reactivity**
Strong oxidizer. Reactive with reducing agent, combustible materials, organic materials, metals, acids, alkalis

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:**
Hazardous polymerization does not occur

**Conditions to avoid:**
Heat. Incompatible materials.

**Incompatible Materials:**
Incompatible with reducing materials, alkalies, ethers (dioxane, furfuran, tetrahydrofuran), Metals (eg. potassium, sodium lithium, iron, copper, brass, bronze, chromium, zinc, lead, silver, nickel, manganese, platinum, cobalt, iridium, gold, tungsten, osmium, palladium), metal oxides (eg. cobalt oxide, iron oxide, lead oxide, lead hydroxide, manganese oxide), metal salts (eg. calcium permanganate, salts of iron), asbestos, vanadium, molybdeum, triethylamine, palladium, sodium pyrophosphate, carboxylic acids, cyclopentadiene, formic acid, chlorosulfonic acid, carboxylic acids, acetic acid, nitric acid, rust, ketones, sodium carbonate, sodium borate, aniline, mercurious chloride, sodium pyrophosphate, hexavalent chromium compounds, tetrahydrofuran, sodium fluoride, potassium permanganate, urea, manganese dioxide, hydrogen selenide, charcoal, coal, sodium borate, cyclopentadiene, glycerine, cyanides (potassium, cyanide, sodium cyanide), nitrogen compounds.

**Product code:** HY115

**Product name:** HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
Hazardous decomposition products: Oxygen.

Other Information

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Ingestion. Eyes.

Acute Toxicity

Component Information

Water - 7732-18-5
- LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
- LD50/oral/mouse = No information available
- LD50/dermal/rat = No information available
- LD50/dermal/rabbit = No information available
- LC50/inhalation/rat = No information available
- LC50/inhalation/mouse = No information available
- Other LD50 or LC50 information = No information available

Hydrogen peroxide - 7722-84-1
- LD50/oral/rat = 1518 mg/kg Oral LD50 Rat
- LD50/oral/mouse = No information available
- LD50/dermal/rat = 4060 mg/kg Dermal LD50 Rat
- LD50/dermal/rabbit = 2000 mg/kg Dermal LD50 Rabbit
- LC50/inhalation/rat = 2 g/m³ Inhalation LC50 Rat 4 h
- LC50/inhalation/mouse = No information available
- Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat = VALUE - Acute Tox Oral = No information available

LD50/oral/mouse = Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE - Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE - Vapor = No information available

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
**Symptoms**

**Skin Contact:** Corrosive. Contact causes severe skin irritation and possible burns. Absorption into skin may affect behavior/central nervous system (tremor, ataxia, convulsions), respiration (dyspnea, pulmonary emboli), brain.

**Eye Contact:** Corrosive. Causes severe eye irritation, superficial clouding, corneal edema and may cause burns.

**Inhalation** May be harmful if inhaled. Causes respiratory tract (nose, throat, lung) irritation with coughing and wheezing. May cause ulceration and perforation of the nasal septum if inhaled in excessive quantities. Burning copper sulfate may result in irritating and poisonous gases which may irritate the respiratory tract and lungs, and may cause fume metal fever which is characterized by flu-like symptoms such as fever, chills, muscle aches. Causes lacrimation. May cause chemical burns to the respiratory tract. May affect behavior/Central nervous system (insomnia, headache, ataxia, nervous tremors with numb extremities) and may cause ulceration of nasal tissue, and, chemical pneumonia, unconsciousness, and possible death. At high concentrations, respiratory effects may include acute lung damage, and delayed pulmonary edema. May affect blood.

**Ingestion** Harmful if swallowed. Causes gastrointestinal tract irritation with nausea, vomiting, hypermotility, and diarrhea. Causes gastrointestinal tract burns. May affect cardiovascular system and cause vascular collapse and damage. May affect blood (change in leukocyte count, pigmented or nucleated red blood cells). May cause difficulty in swallowing, stomach distension and possible cerebral swelling. May affect behavior/central nervous system (tetany, excitement), and brain.

**Aspiration hazard** No information available

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

**Chronic Toxicity** Prolonged or repeated skin contact may cause dermatitis  
Prolonged or repeated exposure of eyes to vapor or mist may cause corneal damage  
Prolonged or repeated inhalation may affect metabolism (weight loss)  
Prolonged or repeated ingestion may affect the liver  
Prolonged or repeated inhalation may affect the blood (changes in serum composition)

**Sensitization:** No information available

**Mutagenic Effects:** Mutations in microorganisms  
Experiments with bacteria and/or yeast have shown mutagenic effects

**Carcinogenic effects:** Not classifiable as a human carcinogen. Not classifiable as to its carcinogenicity to humans.

**Product code:** HY115  
**Product name:** HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
<table>
<thead>
<tr>
<th>Components</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not listed</td>
<td>Not listed</td>
<td></td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)
IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans

Reproductive toxicity
No data is available

Reproductive Effects:
No information available

Developmental Effects:
No information available

Teratogenic Effects:
No information available

Specific Target Organ Toxicity

STOT - single exposure
No information available

STOT - repeated exposure

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:
Aquatic environment.

Hydrogen peroxide - 7722-84-1

Freshwater Algae Data:
2.5 mg/L EC50 Chlorella vulgaris 72 h

Freshwater Fish Species Data:
- 18-56 mg/L LC50 Lepomis macrochirus 96 h static 1
- 10.0-32.0 mg/L LC50 Oncorhynchus mykiss 96 h static 1
- 16.4 mg/L LC50 Pimephales promelas 96 h 1

Water Flea Data:
- 18 - 32 mg/L EC50 Daphnia magna 48 h
- 7.7 mg/L EC50 Daphnia magna 24 h

Persistence and degradability:
No information available

Bioaccumulative potential:
No information available

Mobility:
No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
- **UN-No:** UN2014
- **Proper Shipping Name:** Hydrogen peroxide, aqueous solutions
- **Hazard Class:** 5.1
- **Subsidiary Risk:** 8
- **Packing Group:** II
- **ERG No:** 140
- **Marine Pollutant:** No data available
- **DOT RQ (lbs):** No information available

Symbol(s):

TDG (Canada)
- **UN-No:** UN2014
- **Proper Shipping Name:** Hydrogen peroxide, aqueous solution
- **Hazard Class:** 5.1
- **Subsidiary Risk:** (8)
- **Packing Group:** II
- **Description:** No information available

ADR
- **UN-No:** UN2014
- **Proper Shipping Name:** Hydrogen peroxide, aqueous solution
- **Hazard Class:** 5.1
- **Packing Group:** II
- **Subsidiary Risk:** 8
- **Classification Code:** No information available
- **Description:** No information available
- **CEFIC Tremcard No:** No information available

IMO / IMDG
- **UN-No:** UN2014
- **Proper Shipping Name:** Hydrogen peroxide, aqueous solution
- **Hazard Class:** 5.1
- **Subsidiary Risk:** 8
- **Packing Group:** II
- **Description:** No information available
- **IMDG Page:** No information available
- **Marine Pollutant:** No information available
- **EMS:** F-H
- **MFAG:** No information available
- **Maximum Quantity:** No information available

RID
- **UN-No:** UN2014
- **Proper Shipping Name:** Hydrogen peroxide, aqueous solution

Product code: HY115  Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
14. TRANSPORT INFORMATION

Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: II
Classification Code: No information available
Description: No information available

ICAO
UN-No: UN2014
Proper Shipping Name: Hydrogen peroxide, aqueous solution
Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: II
Description: No information available

IATA
UN-No: UN2014
Proper Shipping Name: Hydrogen peroxide, aqueous solution
Hazard Class: 5.1
Subsidiary Risk: 8
Packing Group: II
ERG Code: 5C
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL (PICCS)</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>Present</td>
<td>Present KE-35400</td>
<td>Present</td>
<td>Not present</td>
<td>Present</td>
<td>Present</td>
<td>Present 231-791-2</td>
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<tr>
<td>Hydrogen peroxide</td>
<td>Present</td>
<td>Present KE-20204</td>
<td>Present (1)-419</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present 231-765-0</td>
</tr>
</tbody>
</table>

U.S. Regulations

Hydrogen peroxide
- Massachusetts RTK: Present
- Massachusetts EHS: extraordinarily hazardous
- New Jersey RTK Hazardous Substance List: 1015
- New Jersey (EHS) List: 1015 500 lb TPQ
- New Jersey - Discharge Prevention - List of Hazardous Substances: Present
- Pennsylvania RTK: environmental hazard
- Pennsylvania RTK - Environmental Hazard List: Present
- Pennsylvania RTK - Special Hazardous Substances: Present
- Michigan PSM HHC: = 7500 lb TQ 52% by weight or greater
- Minnesota - Hazardous Substance List: Present
- California Directors List of Hazardous Substances: Present
- FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1366
- Massachusetts PSM HHC: = 7500 lb TQ 52% by weight or greater
- Pennsylvania RTK: environmental hazard
- Pennsylvania RTK - Environmental Hazard List: Present
- Pennsylvania RTK - Special Hazardous Substances: Present
- Michigan PSM HHC: = 7500 lb TQ 52% by weight or greater
- Minnesota - Hazardous Substance List: Present
- California Directors List of Hazardous Substances: Present
- FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1366

FDA - Direct Food Additives

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>133.113</td>
<td>133.118</td>
<td>133.136</td>
</tr>
<tr>
<td>133.144</td>
<td>133.195</td>
<td>160.105</td>
</tr>
<tr>
<td>160.145</td>
<td>160.185</td>
<td>172.167</td>
</tr>
<tr>
<td>172.723</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FDA - 21 CFR - Total Food Additives

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
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<td>133.113</td>
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<td>133.136</td>
<td>133.144</td>
<td>133.195</td>
<td>160.105</td>
<td>160.145</td>
<td>160.185</td>
<td>172.167</td>
<td>172.723</td>
</tr>
</tbody>
</table>


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>None</td>
<td>1000 lb TPQ</td>
<td>1000</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Canada

WHMIS hazard class:
C Oxidizing materials
E Corrosive material
F Dangerously reactive material

Water
Uncontrolled product according to WHMIS classification criteria

Hydrogen peroxide
C E F
C D2B including 9%, 10%, 15%
C E including 20%, 25%, 27%
C E F including 30%, 35%, 40%, 50%, 65%, 70%, 75%, 80%, 85%, 90%, 95%

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

<table>
<thead>
<tr>
<th>Components</th>
<th>WHMIS Ingredient Disclosure List -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>1 %</td>
</tr>
</tbody>
</table>

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Present</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>Present</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
EU Classification

**R-phrase(s)**
R 8 - Contact with combustible material may cause fire.
R34 - Causes burns.

**S-phrase(s)**
S28 - After contact with skin, wash immediately with plenty of water
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 1/2 - Keep locked up and out of the reach of children.
S36/39 - Wear suitable protective clothing and eye/face protection.

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>No information</td>
<td></td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>C;R34</td>
<td>20%&lt;=C</td>
<td>S(1/2)-S28-S36/39-S45</td>
</tr>
<tr>
<td></td>
<td>O;R8</td>
<td>5%&lt;=C&lt;20%</td>
<td></td>
</tr>
</tbody>
</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
C - Corrosive.
O - Oxidising.

16. OTHER INFORMATION

Product code: HY115
Product name: HYDROGEN PEROXIDE, 35 PERCENT SOLUTION, FCC
Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet