Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.16.2014

Hydrogen Peroxide, 35%

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SECTION 1: Identification of the substance/mixture and of the supplier

Product name:

Hydrogen Peroxide, 35%

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25360

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc 9 Barnhart Drive, Hanover, PA 17331 (717) 632-1291

Supplier Details:

Fisher Science Education 6771 Silver Crest Road, Nazareth, PA 18064 (724)517-1954

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:

Oxidizing liquids, category 2 Serious eye damage, category 1 Serious eye damage, category 1 Acute hazards to the aquatic environment, category 3

Hazard statements:

May intensify fire; oxidizer. Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statements:

If medical advice is needed, have product container or label at hand. Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep/Store away from clothing/combustible materials.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash skin thoroughly after handling.

Take any precaution to avoid mixing with combustibles.

Do not eat, drink or smoke when using this product.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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.

Specific treatment (see supplemental first aid instructions on this label).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

In case of fire: Use agents recommended in section 5 for extinction. Store locked up. Effective date : 12.16.2014

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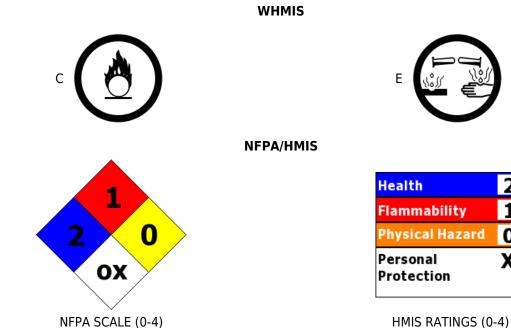
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Store in a dry place. Store in a closed container. Dispose of contents/container to

Other Non-GHS Classification:



SECTION 3: Composition/information on ingredients

| Ingredients: | | | | |
|---------------|-------------------|---------------------------|--|--|
| CAS 7722-84-1 | Hydrogen Peroxide | 20-35 % | | |
| CAS 7732-18-5 | Deionized Water | 65-80 % | | |
| | | Percentages are by weight | | |

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists.

After skin contact:

Flush with water for 15 minutes. Get medical assistance if irritation develops. Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.

After eye contact:

Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance. Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing:

DO NOT induce vomiting. Dilute with water or milk. Get medical assistance. Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or

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vomiting persists.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath. None identified.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

If in laboratory setting, follow laboratory fire suppression procedures. Use water for fire presupposition.

Unsuitable extinguishing agents:

No information available.

Special hazards arising from the substance or mixture:

Oxidizer: Contact with combustible/organic material may cause fire. Containers may explode when heated. This material will accelerate burning when involved in a fire.

Advice for firefighters:

Protective equipment:

Use normal procedures. Poisonous gases may be produced in fire. Use protective clothing. Use NIOSH-approved breathing equipment.

Additional information (precautions):

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

Environmental precautions:

Should not be released into the environment. Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

Methods and material for containment and cleaning up:

Soak up with an inert absorbent material and containerize for disposal. If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Wash hands after handling. Avoid contact with skin and eyes. Contact with metal, dust, or organic material may accelerate decomposition. Prevent formation of aerosols. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid splashes or spray in enclosed areas.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or

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open flame. Store away from foodstuffs. Store in cool, dry conditions in well sealed containers. Keep container tightly sealed. Do not store near combustible materials.

SECTION 8: Exposure controls/personal protection

| Control Parameters: | 7722-84-1, Hydrogen Peroxide Solution, OSHA PEL: 1 .4 mg/m3. 7722-84-1, Hydrogen Peroxide Solution, ACGIH TLV: 1 .4 mg/m3. |
|-----------------------------------|--|
| Appropriate Engineering controls: | Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. |
| Respiratory protection: | Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable. |
| Protection of skin: | The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. |
| Eye protection: | Safety glasses with side shields or goggles. |
| General hygienic measures: | The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin. |

SECTION 9: Physical and chemical properties

| Appearance (physical state, color): | Clear, colorless liquid | Explosion limit lower: Explosion limit upper: | Not Determined Not Determined |
|-------------------------------------|-------------------------|--|----------------------------------|
| Odor: | Slight | Vapor pressure: | 23mmHg @30° C |
| Odor threshold: | Not Determined | Vapor density: | 1.10 |
| pH-value: | 3.3 | Relative density: | Not Determined |
| Melting/Freezing point: | -33° C | Solubilities: | Miscible in water. |
| Boiling point/Boiling range: | 108° C | Partition coefficient (n- octanol/water): | Not Determined |
| Flash point (closed cup): | Not Determined | Auto/Self-ignition temperature: | Not Determined |
| Evaporation rate: | Not Determined | Decomposition temperature: | >125° C |

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| Flammability (solid,gaseous): | Not Determined | Viscosity: | a. Kinematic: Not Determined b. Dynamic: Not Determined |
|----------------------------------|----------------|------------|--|
| Density : 1.110 | | | |

SECTION 10: Stability and reactivity

Reactivity:

None under normal processing.

Chemical stability:

Light Sensitive.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Light, excess heat, shock and friction, incompatible materials, and combustibles.

Incompatible materials:

Metals, reducing agents, strong oxidizers, alcohols, ammonia, copper, copper alloys, lead oxides, cyanides, sulfides, lead, acetone.

Hazardous decomposition products:

Oxygen and possibly hydrogen gas.

SECTION 11: Toxicological information

| Acute Toxicity: | | | | |
|--|-----------|----------------------------|--|--|
| Oral: | 7722-84-1 | LD50 rat: 801mg/kg | | |
| Inhalation: | 7722-84-1 | LC50 rat: 2mgL/4H | | |
| Chronic Toxicity: No additional information. | | | | |
| Corrosion Irritation: | | | | |
| Ocular: | 7722-84-1 | Causes severe eye burns. | | |
| Sensitization: | | No additional information. | | |
| Single Target Organ (STOT): | | No additional information. | | |
| Numerical Measures: | | No additional information. | | |
| Carcinogenicity: | | No additional information. | | |
| Mutagenicity: | | No additional information. | | |
| Reproductive Toxicity: | | No additional information. | | |

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SECTION 12: Ecological information

Ecotoxicity:

Freshwater fish: 96 Hr LC50 Pimephales promelas: 16.4 mg/L; 96 Hr LC50 Lepomis macrochirus: 18 - 56 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 10.0 - 32.0 mg/L [static] **Water flea**: 48 Hr EC50 Daphnia magna: 18 - 32 mg/L [Static]

Persistence and degradability:

Readily degradable in the environment.

Bioaccumulative potential: None

Mobility in soil:

Aqueous solution has high mobility in soil.

Other adverse effects: None

SECTION 13: Disposal considerations

Waste disposal recommendations:

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Do not empty into drains. Harmful to aquatic life. Cover with inert material and containerize for disposal.

SECTION 14: Transport information

UN-Number:

2014

UN proper shipping name:

Hydrogen Peroxide (Aqueous Solution)

Transport hazard class(es): None Packing group: II Environmental hazard: None Transport in bulk: Not Applicable Special precautions for user: None

SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

None of the ingredients are listed.

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

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None of the ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 1%):

7722-84-1 Hydrogen Peroxide Solution.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases: None

Abbreviations and Acronyms:

IMDGInternational Maritime Code for Dangerous Goods. PNECPredicted No-Effect Concentration (REACH). CFRCode of Federal Regulations (USA). SARASuperfund Amendments and Reauthorization Act (USA). RCRAResource Conservation and Recovery Act (USA). TSCAToxic Substances Control Act (USA). NPRINational Pollutant Release Inventory (Canada). DOTUS Department of Transportation. IATAInternational Air Transport Association. GHSGlobally Harmonized System of Classification and Labelling of Chemicals. ACGIHAmerican Conference of Governmental Industrial Hygienists. according to 29CFR1910/1200 and GHS Rev. 3

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CASChemical Abstracts Service (division of the American Chemical Society). NFPANational Fire Protection Association (USA). HMISHazardous Materials Identification System (USA). WHMISWorkplace Hazardous Materials Information System (Canada). DNELDerived No-Effect Level (REACH).

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