

Material Safety Data Sheet

Hydrogen Peroxide 30%



Section 1. Product and Company Identification

Product name : Hydrogen Peroxide 30%
Product code : VW3742
Synonym : None.
Material uses : Industrial applications: Laboratory Reagent
Other non-specified industry: Laboratory Reagent
Manufacturer : EMD Chemicals Inc.
P.O. Box 70
480 Democrat Road
Gibbstown, NJ 08027
856-423-6300 Technical Service
Monday - Friday: 8:00 - 5:00 PM
Validation date : **6/30/2006.**
Print date : 7/17/2006.
In case of emergency : 800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Section 2. Hazards Identification

Physical state : Liquid.
Odor : Sharp odor (Slight.)
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview : DANGER!
CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
OXIDIZER.
HARMFUL IF INHALED OR SWALLOWED.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA, NOSE, SINUSES.
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
CORROSIVE MATERIAL
POSSIBLE CANCER HAZARD.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.
Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Store in tightly-closed container. Avoid contact with combustible materials. Use only with adequate ventilation. Wash thoroughly after handling.
Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Eyes : Corrosive to eyes.
Skin : Harmful in contact with skin. Corrosive to the skin.
Inhalation : Toxic by inhalation. Corrosive to the respiratory system.
Ingestion : Toxic if swallowed. May cause burns to mouth, throat and stomach.
Carcinogenic effects : No known significant effects or critical hazards.
Mutagenic effects : No known significant effects or critical hazards.
Teratogenicity / Reproductive toxicity : No known significant effects or critical hazards.

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Section 2. Hazards Identification

Medical conditions aggravated by over-exposure : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to the substance can produce target organs damage.

See toxicological information (section 11)

Section 3. Composition/Information on Ingredients

United States

<u>Name</u>	<u>CAS number</u>	<u>% by Weight</u>
Water	7732-18-5	70
Hydrogen Peroxyde	7722-84-1	30

Section 4. First Aid Measures

- Eye contact** : Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician.
- Skin contact** : Get medical attention immediately. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Inhalation** : Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing or wear gloves.

Section 5. Fire Fighting Measures

Flammability of the product : This material increases the risk of fire and may aid combustion. Contact with combustible material may cause fire.

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Not available.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 5. Fire Fighting Measures

Special remarks on fire hazards : Contact with combustible material may cause fire.

Special remarks on explosion hazards : Contact with strong oxiders may create a fire and explosion hazard.

Section 6. Accidental Release Measures

Personal precautions : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilled material.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Section 7. Handling and Storage

Handling : Do not ingest. Do not get in eyes or on skin or clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Store in tightly-closed container. Avoid contact with combustible materials. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles.

Section 8. Exposure Controls/Personal Protection

Product name

United States

Hydrogen Peroxyde

Exposure limits

ACGIH TLV (United States, 2000).

TWA: 1.4 mg/m³ 8 hour/hours.

TWA: 1 ppm 8 hour/hours.

NIOSH REL (United States, 2000).

TWA: 1.4 mg/m³ 10 hour/hours.

TWA: 1 ppm 10 hour/hours.

OSHA Final Rule (United States, 1989).

TWA: 1.4 mg/m³ 8 hour/hours.

TWA: 1 ppm 8 hour/hours.

Consult local authorities for acceptable exposure limits.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended: face shield face shield

Skin

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Body: Recommended: Full suit. , gloves

Feet: Recommended: Boots.

Section 8. Exposure Controls/Personal Protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and Chemical Properties

- Physical state** : Liquid.
- Color** : Clear. Colorless.
- Odor** : Sharp odor (Slight.)
- pH** : 2-4 Acidic.
- Boiling/condensation point** : 106°C (222.8°F)
- Melting/freezing point** : -26°C (-14.8°F)
- Relative density** : 1.1 (Water = 1)
- Vapor pressure** : The highest known value is 3.2 kPa (24 mm Hg) (at 20°C) (Hydrogen Peroxyde).
- Evaporation rate** : 0.36 (Water) compared with(n-Butyl Acetate =1)

Section 10. Stability and Reactivity

- Stability and reactivity** : The product is stable.
- Conditions of instability** : Decomposes on exposure to light.
- Incompatibility with various substances** : Highly reactive or incompatible with the following materials: organic materials and metals.
Avoid contact with combustible materials. Incompatibility with various materials.
Phosphorus compounds , Carboxylic acid.
- Hazardous decomposition products** : O₂
- Hazardous polymerization** : Will not occur.

Section 11. Toxicological Information

Toxicity data

- Chronic effects on humans** : **CARCINOGENIC EFFECTS** Classified A3 (Proven for animals.) by ACGIH [Hydrogen Peroxyde]. Classified 3 (Not classifiable for humans.) by IARC [Hydrogen Peroxyde].
Contains material which may cause damage to the following organs: mucous membranes, upper respiratory tract, skin, eye, lens or cornea, nose/sinuses.

- Other toxic effects on humans** : Very hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, of inhalation (lung corrosive).

Specific effects

- Carcinogenic effects** : No known significant effects or critical hazards.
- Mutagenic effects** : No known significant effects or critical hazards.
- Teratogenicity / Reproductive toxicity** : No known significant effects or critical hazards.

Sensitization

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Section 11. Toxicological Information

Ingestion	: May cause burns to mouth, throat and stomach.
Inhalation	: Corrosive to the respiratory system.
Eyes	: Corrosive to eyes.
Skin	: Corrosive to the skin.

Section 12. Ecological Information

Environmental precautions	: No known significant effects or critical hazards.
Toxicity of the products of biodegradation	: The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations



Waste disposal	: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
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Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
DOT Classification	UN2014	Hydrogen Peroxide, Aqueous Solution	8	II	 	Not available.

PG* : Packing group

Section 15. Regulatory Information

United States

- HCS Classification** : Oxidizing material
Toxic material
Corrosive material
Target organ effects
- U.S. Federal regulations** : TSCA 8(b) inventory: Listed
SARA 302/304/311/312 extremely hazardous substances: Hydrogen Peroxyde
SARA 302/304 emergency planning and notification: Hydrogen Peroxyde
SARA 302/304/311/312 hazardous chemicals: Hydrogen Peroxyde
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.
- State regulations** : Pennsylvania RTK: Hydrogen Peroxyde: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Hydrogen Peroxyde
New Jersey: Hydrogen Peroxide 30%

Canada

- WHMIS (Canada)** : Class C: Oxidizing material.
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive material
- CEPA DSL/CEPA NDSL** : CEPA DSL: Hydrogen Peroxyde; Water

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

EU regulations

- Risk phrases** : This product is not classified according to EU legislation.

International regulations

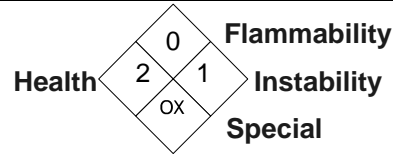
- International lists** : Australia (NICNAS): Hydrogen Peroxyde; Water
Germany water class: Hydrogen Peroxyde
Japan (METI): Hydrogen Peroxyde; Water
Korea (TCCL): Hydrogen Peroxyde; Water
Philippines (RA6969): Hydrogen Peroxyde; Water

Section 16. Other Information

- Label requirements** : DANGER!
CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
OXIDIZER.
HARMFUL IF INHALED OR SWALLOWED.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA, NOSE, SINUSES.
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
CORROSIVE MATERIAL
POSSIBLE CANCER HAZARD.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

Section 16. Other Information

National Fire Protection Association (U.S.A.) :

**Notice to reader**

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.