

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/21/2017

Reviewed on 11/21/2017

## 1 Identification

- **Product identifier**
- **Trade name:** Hydrogen Peroxide Solution, 35%, Technical Grade
- **Article number:** H3035
- **CAS Number:**  
7722-84-1
- **EC number:**  
231-765-0
- **Index number:**  
008-003-00-9
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**  
Chemtec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS03 Flame over circle

Ox. Liq. 1     H271 May cause fire or explosion; strong oxidizer.



GHS05 Corrosion

Skin Corr. 1A   H314 Causes severe skin burns and eye damage.

Eye Dam. 1     H318 Causes serious eye damage.



GHS07

Acute Tox. 4     H302 Harmful if swallowed.

Acute Tox. 4     H332 Harmful if inhaled.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

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**Trade name: Hydrogen Peroxide Solution, 35%, Technical Grade**

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**· Hazard pictograms**

**· Signal word Danger**
**· Hazard statements**

*May cause fire or explosion; strong oxidizer.*

*Harmful if swallowed or if inhaled.*

*Causes severe skin burns and eye damage.*

**· Precautionary statements**

*Keep/Store away from clothing and other combustible materials*

*Take any precaution to avoid mixing with combustibles.*

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

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

*Use only outdoors or in a well-ventilated area.*

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

*Wear fire/flammable resistant/retardant clothing.*

*If swallowed: Call a poison center/doctor if you feel unwell.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.*

*Immediately call a poison center/doctor.*

*Specific treatment (see on this label).*

*Wash contaminated clothing before reuse.*

*In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.*

*In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**· Classification system:**
**· NFPA ratings (scale 0 - 4)**


Health = 3

Fire = 3

Reactivity = 0

*The substance possesses oxidizing properties.*

**· HMIS-ratings (scale 0 - 4)**


Health = \*3

Fire = 3

Reactivity = 0

**· Other hazards**
**· Results of PBT and vPvB assessment**

**· PBT:** Not applicable.

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· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization:** Substances
- **CAS No. Description**  
7722-84-1 Hydrogen Peroxide Solution
- **Identification number(s)**
- **EC number:** 231-765-0
- **Index number:** 008-003-00-9

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.

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- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**
  - **PAC-1:** 10 ppm
  - **PAC-2:** 50 ppm
  - **PAC-3:** 100 ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
  - Protect from heat.
  - Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**CAS: 7722-84-1 Hydrogen Peroxide Solution**

PEL Long-term value: 1.4 mg/m<sup>3</sup>, 1 ppm

REL Long-term value: 1.4 mg/m<sup>3</sup>, 1 ppm

TLV Long-term value: 1.4 mg/m<sup>3</sup>, 1 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.

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· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Pungent
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	-33 °C (-27.4 °F)
Boiling point/Boiling range:	108 °C (226.4 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.  
Heating may cause an explosion.  
Explosive when mixed with combustible material.

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- |   |  |
|---|--|
| <b>· Explosion limits:</b>  |  |
| <b>Lower:</b>   | Not determined.                            |
| <b>Upper:</b>   | Not determined.                            |
| <b>· Vapor pressure at 20 °C (68 °F):</b>                         | 17.4 hPa (13.1 mm Hg)                      |
| <b>· Density at 20 °C (68 °F):</b>                                | 1.45 g/cm <sup>3</sup> (12.10025 lbs/gal)  |
| <b>· Relative density</b>   | Not determined.                            |
| <b>· Vapor density</b>  | Not determined.                            |
| <b>· Evaporation rate</b>   | Not determined.                            |
| <b>· Solubility in / Miscibility with Water:</b>                  | Fully miscible.                            |
| <b>· Partition coefficient (n-octanol/water):</b> Not determined. |  |
| <b>· Viscosity:</b>   |  |
| <b>Dynamic:</b>   | Not determined.                            |
| <b>Kinematic:</b>   | Not determined.                            |
| <b>· Other information</b>  | No further relevant information available. |

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

**· LD/LC50 values that are relevant for classification:**

Oral	LD50	500 mg/kg (ATE)
Inhalative	LC50/4 h	11 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** 3
- **NTP (National Toxicology Program)** Substance is not listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.



## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (Assessment by list): slightly hazardous for water*  
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*  
*Must not reach bodies of water or drainage ditch undiluted or unneutralized.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |                                      |
|---|--------------------------------------|
| · <b>UN-Number</b>  | UN2014                               |
| · <b>DOT, IMDG, IATA</b>  |                                      |
| · <b>UN proper shipping name</b>  | Hydrogen peroxide, aqueous solutions |
| · <b>DOT</b>  | HYDROGEN PEROXIDE, AQUEOUS SOLUTION  |
| · <b>IMDG, IATA</b>   |                                      |
| · <b>Transport hazard class(es)</b>   |                                      |
| · <b>DOT</b>  |                                      |
|   |                                      |
| · <b>Class</b>  | 5.1 Oxidizing substances             |

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· **Label** 5.1, 8

· **IMDG**



· **Class** 5.1 Oxidizing substances  
 · **Label** 5.1/8

· **IATA**



· **Class** 5.1 Oxidizing substances  
 · **Label** 5.1 (8)

· **Packing group**

· **DOT, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Warning: Oxidizing substances  
 · **Danger code (Kemler):** 559  
 · **EMS Number:** F-H,S-Q  
 · **Segregation groups** Peroxides  
 · **Stowage Category** D  
 · **Stowage Code** SW1 Protected from sources of heat.  
 · **Segregation Code** SG16 Stow "separated from" class 4.1  
 SG59 Stow "separated from" permanganates  
 SG72 See 7.2.6.3.2.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations** On passenger aircraft/rail: Forbidden  
 On cargo aircraft only: Forbidden

· **IMDG**

· **Limited quantities (LQ)** 0  
 · **Excepted quantities (EQ)** Code: E0  
 Not permitted as Excepted Quantity

· **UN "Model Regulation":** UN 2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS, 5.1 (8), II

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Section 355 (extremely hazardous substances): Substance is listed.

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· **Section 313 (Specific toxic chemical listings):** Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Hydrogen Peroxide Solution

· **Proposition 65**

· **Chemicals known to cause cancer:** Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.

· **Chemicals known to cause developmental toxicity:** Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)** Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)** A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS03

GHS05

GHS07

· **Signal word** *Danger*

· **Hazard statements**

*May cause fire or explosion; strong oxidizer.*

*Harmful if swallowed or if inhaled.*

*Causes severe skin burns and eye damage.*

· **Precautionary statements**

*Keep/Store away from clothing and other combustible materials*

*Take any precaution to avoid mixing with combustibles.*

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

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

*Use only outdoors or in a well-ventilated area.*

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

*Wear fire/flammable resistant/retardant clothing.*

*If swallowed: Call a poison center/doctor if you feel unwell.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.*

*Immediately call a poison center/doctor.*

*Specific treatment (see on this label).*

*Wash contaminated clothing before reuse.*

*In case of fire: Use for extinction: CO2, powder or water spray.*

*In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision**

Creation date for SDS 08-13-2014. STN

11-21-2017: review SDS for accuracy. STN

11/21/2017 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Ox. Liq. 1: Oxidizing liquids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1