

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/24/2024

Reviewed on 07/24/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Phenolphthalein  
0.5% w/v in 95% Alcohol
- **Article number:** P1994
- **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 [shermann@aquasolutions.org](mailto:shermann@aquasolutions.org)
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carcinogenicity 2

H351 Suspected of causing cancer.

Toxic to Reproduction 2

H361 Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure 2 H371 May cause damage to the central nervous system and the visual organs.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Methanol

Phenolphthalein

- **Hazard statements**

Highly flammable liquid and vapor.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

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*May cause damage to the central nervous system and the visual organs.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

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

*Keep container tightly closed.*

*Ground/bond container and receiving equipment.*

*Use explosion-proof electrical/ventilating/lighting/equipment.*

*Use only non-sparking tools.*

*Take precautionary measures against static discharge.*

*Do not breathe dust/fume/gas/mist/vapors/spray.*

*Wash thoroughly after handling.*

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

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

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

*IF exposed or concerned: Get medical advice/attention.*

*In case of fire: Use CO2, powder or water spray to extinguish.*

*Store in a well-ventilated place. Keep cool.*

*Store locked up.*

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*1

Fire = 3

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	89.43%
CAS: 67-56-1	Methanol	4.968%
CAS: 67-63-0	Isopropanol	4.968%
CAS: 77-09-8	Phenolphthalein	0.633%

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## 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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).  
Dispose contaminated material as waste according to section 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:**

CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	1,800 ppm
CAS: 67-56-1	Methanol	530 ppm
CAS: 67-63-0	Isopropanol	400 ppm
CAS: 77-09-8	Phenolphthalein	4 mg/m <sup>3</sup>

- **PAC-2:**

CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	3300* ppm
CAS: 67-56-1	Methanol	2,100 ppm

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CAS: 67-63-0	Isopropanol	2000* ppm
CAS: 77-09-8	Phenolphthalein	1.4 ppm
<b>· PAC-3:</b>		
CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	15000* ppm
CAS: 67-56-1	Methanol	7200* ppm
CAS: 67-63-0	Isopropanol	12000** ppm
CAS: 77-09-8	Phenolphthalein	20 ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
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 section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
At this time, the remaining constituent has no known exposure limits.

<b>CAS: 64-17-5 Ethyl Alcohol, Absolute 200 Proof</b>	
PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV	Short-term value: 1000 ppm
	A3
<b>CAS: 67-56-1 Methanol</b>	
PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm
	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
	Skin

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TLV Short-term value: 250 ppm  
 Long-term value: 200 ppm  
 Skin; BEIc

**CAS: 67-63-0 Isopropanol**

PEL Long-term value: 980 mg/m<sup>3</sup>, 400 ppm  
 REL Short-term value: 1225 mg/m<sup>3</sup>, 500 ppm  
 Long-term value: 980 mg/m<sup>3</sup>, 400 ppm  
 TLV Short-term value: 400 ppm  
 Long-term value: 200 ppm  
 BEI, A4

· **Ingredients with biological limit values:****CAS: 67-56-1 Methanol**

BEI 15 mg/L  
 LD50 Intraperitoneal: urine  
 Time: end of shift  
 LD50: Methanol (background, nonspecific)

**CAS: 67-63-0 Isopropanol**

BEI 40 mg/L  
 LD50 Intraperitoneal: urine  
 Time: end of shift at end of workweek  
 LD50: Acetone (background, nonspecific)

· **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.  
 Store protective clothing separately.

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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.

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· **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:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Clear
· <b>Odor:</b>	Alcohol
· <b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	78.3 °C (172.9 °F)

· **Flash point:** 11 °C (51.8 °F)· **Flammability (solid, gaseous):** Highly flammable.· **Auto igniting:** 425 °C (797 °F)· **Decomposition temperature:** Not determined.· **Ignition temperature:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.· **Explosion limits:**

· <b>Lower:</b>	3.5 Vol %
· <b>Upper:</b>	19 Vol %

· **Vapor pressure at 20 °C (68 °F):** 59 hPa (44.3 mm Hg)· **Vapor pressure at 50 °C (122 °F):** 280 hPa (210 mm Hg)· **Density at 20 °C (68 °F):** 0.78987 g/cm<sup>3</sup> (6.59147 lbs/gal)· **Relative density** Not determined.· **Vapor density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with**· **Water:** Fully miscible.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.

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· **Solvent content:**  
**Organic solvents:** 99.4 %  
**VOC content:** 99.37 %  
784.9 g/l / 6.55 lb/gal

**Solids content:** 90.1 %

· **Other information** 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:

##### ATE (Acute Toxicity Estimate)

Oral	LD50	2,013 mg/kg
Dermal	LD50	6,038 mg/kg
Inhalative	LC50/4h	60.4 mg/l

#### · Primary irritant effect:

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

#### · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

#### · Carcinogenic categories

##### · IARC (International Agency for Research on Cancer)

CAS: 64-17-5	Ethyl Alcohol, Absolute 200 Proof	1
CAS: 67-63-0	Isopropanol	3
CAS: 77-09-8	Phenolphthalein	2B

##### · NTP (National Toxicology Program)

CAS: 77-09-8	Phenolphthalein	R
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##### · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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## 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 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>  | <p style="margin-left: 20px;">UN1993</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">Flammable liquids, n.o.s. (Ethanol, Methanol, Isopropanol )</p> <p style="margin-left: 20px;">FLAMMABLE LIQUID, N.O.S. (Ethanol, Methanol, Isopropanol )</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>   |  |
| <div style="text-align: center;">  <p>FLAMMABLE LIQUID<br/>3</p> </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul> | <p style="margin-left: 20px;">3 Flammable liquids</p>  |

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**Trade name: Phenolphthalein**  
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· <b>Label</b>	3
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids
· <b>Label</b>	3
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Flammable liquids
· <b>Hazard identification number (Kemler code):</b>	33
· <b>EMS Number:</b>	F-E,S-D
· <b>Stowage Category</b>	B
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL, METHANOL, ISOPROPANOL), 3, II

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

CAS: 67-56-1 | Methanol

CAS: 67-63-0 | Isopropanol

CAS: 77-09-8 | Phenolphthalein

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

Ethyl Alcohol, Absolute 200 Proof

ACTIVE

Methanol

ACTIVE

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Isopropanol	ACTIVE
Phenolphthalein	ACTIVE

· **Hazardous Air Pollutants**

CAS: 67-56-1 | Methanol

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 77-09-8 | Phenolphthalein

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

CAS: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof

CAS: 67-56-1 | Methanol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

CAS: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof

A3

CAS: 67-63-0 | Isopropanol

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS02    GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Methanol

Phenolphthalein

· **Hazard statements**

Highly flammable liquid and vapor.

Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

May cause damage to the central nervous system and the visual organs.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

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Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF exposed or concerned: Get medical advice/attention.  
 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
 Store in a well-ventilated place. Keep cool.  
 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.

## 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:

· **Date of preparation / last revision**

Revision 1.2, 07-24-2024: Reviewed SDS for accuracy. STN/GW  
 07/24/2024 / 1.1

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Carcinogenicity 2: Carcinogenicity – Category 2

Toxic to Reproduction 2: Reproductive toxicity – Category 2

Specific Target Organ Toxicity - Single Exposure 2: Specific target organ toxicity (single exposure) – Category 2

· **\* Data compared to the previous version altered.**