# Safety Data Sheet
## acc. to OSHA HCS

*Printing date 09/11/2017* *Reviewed on 09/11/2017*

## 1 Identification

· **Product identifier**

· **Trade name: Phenolphthalein 1% w/v in Methanol Solution**

· **Article number:** 6662

· **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:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666

## 2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

| | | |
|---|---|---|
| Muta. 2 | H341 | Suspected of causing genetic defects. |
| Carc. 1B | H350 | May cause cancer. |
| Repr. 2 | H361 | Suspected of damaging fertility or the unborn child. |
| STOT SE 1 | H370 | Causes damage to organs. |

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



GHS02 GHS06 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Methanol (Methyl Alcohol)

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**Trade name: Phenolphthalein 1% w/v in Methanol Solution**

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*Phenolphthalein*

· **Hazard statements**
*Highly flammable liquid and vapor.*
*Toxic if inhaled.*
*Suspected of causing genetic defects.*
*May cause cancer.*
*Suspected of damaging fertility or the unborn child.*
*Causes damage to 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.*
*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.*
*Use only outdoors or in a well-ventilated area.*
*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 INHALED: Remove person to fresh air and keep comfortable for breathing.*
*IF exposed or concerned: Get medical advice/attention.*
*Specific treatment (see on this label).*
*In case of fire: Use for extinction: CO2, powder or water spray.*
*Store in a well-ventilated place. Keep container tightly closed.*
*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 = 3*
*Fire = 3*
*Reactivity = 0*

· **HMIS-ratings (scale 0 - 4)**




*Health = *3*
*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.*

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**Trade name: Phenolphthalein 1% w/v in Methanol Solution**

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| · **Dangerous components:** | | |
|---|---|---|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 98.738% |
| CAS: 77-09-8 | Phenolphthalein | 1.262% |

## 4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation:**
Supply fresh air or oxygen; call for doctor.
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:** 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:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** 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 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:** | | |
|---|---|---|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 530 ppm |

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| | | |
|---|---|---|
| CAS: 77-09-8 | Phenolphthalein | 4 mg/m3 |

· **PAC-2:**

| | | |
|---|---|---|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 2,100 ppm |
| CAS: 77-09-8 | Phenolphthalein | 44 mg/m3 |

· **PAC-3:**

| | | |
|---|---|---|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 7200* ppm |
| CAS: 77-09-8 | Phenolphthalein | 260 mg/m3 |

## 7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
· **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 item 7.

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

| **CAS: 67-56-1 Methanol (Methyl Alcohol)** | |
|---|---|
| PEL | Long-term value: 260 mg/m³, 200 ppm |
| REL | Short-term value: 325 mg/m³, 250 ppm<br>Long-term value: 260 mg/m³, 200 ppm<br>Skin |
| TLV | Short-term value: 328 mg/m³, 250 ppm<br>Long-term value: 262 mg/m³, 200 ppm<br>Skin; BEI |

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· **Ingredients with biological limit values:**

**CAS: 67-56-1 Methanol (Methyl Alcohol)**

BEI 15 mg/L
LD50 Intraperitoneal: urine
Time: end of shift
LD50: Methanol (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.
· **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:** | Clear |
| · **Odor:** | Methanol |

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**Trade name: Phenolphthalein 1% w/v in Methanol Solution**

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| | |
|---|---|
| · **Odor threshold:** | Not determined. |
| · **pH-value:** | Not determined. |
| · **Change in condition** | |
| **Melting point/Melting range:** | -97.8 °C (-144 °F) |
| **Boiling point/Boiling range:** | 64 °C (147 °F) |
| · **Flash point:** | 11 °C (52 °F) |
| · **Flammability (solid, gaseous):** | Not applicable. |
| · **Ignition temperature:** | 455 °C (851 °F) |
| · **Decomposition temperature:** | Not determined. |
| · **Auto igniting:** | Product is not selfigniting. |
| · **Danger of explosion:** | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · **Explosion limits:** | |
| **Lower:** | 5.5 Vol % |
| **Upper:** | 44 Vol % |
| · **Vapor pressure at 20 °C (68 °F):** | 128 hPa (96 mm Hg) |
| · **Density at 20 °C (68 °F):** | 0.79235 g/cm³ (6.612 lbs/gal) |
| · **Relative density** | Not determined. |
| · **Vapor density** | Not determined. |
| · **Evaporation rate** | Not determined. |
| · **Solubility in / Miscibility with** | |
| **Water:** | Not miscible or difficult to mix. |
| · **Partition coefficient (n-octanol/water):** | Not determined. |
| · **Viscosity:** | |
| **Dynamic:** | Not determined. |
| **Kinematic:** | Not determined. |
| · **Solvent content:** | |
| **Organic solvents:** | 98.7 % |
| **VOC content:** | 98.7 %<br>782.3 g/l / 6.53 lb/gl |
| **Solids content:** | 1.3 % |
| · **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.

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**Trade name: Phenolphthalein 1% w/v in Methanol Solution**

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· **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)** | | |
| Inhalative | LC50/4 h | 3.04 mg/l |

| CAS: 67-56-1 Methanol (Methyl Alcohol) | | |
|---|---|---|
| Oral | LD50 | 5628 mg/kg (rat) |
| Dermal | LD50 | 15800 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 3 mg/l (ATE) |
| **CAS: 77-09-8 Phenolphthalein** | | |
| Dermal | LD50 | not available mg/kg (rat) |
| Irritation of skin | Respiratory or skin sensitization | not available (Human) |
| Irritation of eyes | Eye damage/eye irritation | not available (rabbit) |

· **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:
Toxic

· **Carcinogenic categories**

| · IARC (International Agency for Research on Cancer) | | |
|---|---|---|
| CAS: 77-09-8 | Phenolphthalein | 2B |

| · NTP (National Toxicology Program) | | |
|---|---|---|
| CAS: 77-09-8 | Phenolphthalein | R |

| · OSHA-Ca (Occupational Safety & Health Administration) |
|---|
| None of the ingredients is 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 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

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· **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.

## 14 Transport information

| | |
|---|---|
| · **UN-Number** | |
| · **DOT, IMDG, IATA** | UN1993 |
| · **UN proper shipping name** | |
| · **DOT** | Flammable liquids, n.o.s. (Methanol) |
| · **IMDG, IATA** | FLAMMABLE LIQUID, N.O.S. (METHANOL) |
| · **Transport hazard class(es)** | |
| · **DOT** | |




| | |
|---|---|
| · **Class** | 3 Flammable liquids |
| · **Label** | 3 |
| · **IMDG, IATA** | |




| | |
|---|---|
| · **Class** | 3 Flammable liquids |
| · **Label** | 3 |
| · **Packing group** | |
| · **DOT, IMDG, IATA** | II |
| · **Environmental hazards:** | |
| · **Marine pollutant:** | No |
| · **Special precautions for user** | Warning: Flammable liquids |
| · **Danger code (Kemler):** | 336 |
| · **EMS Number:** | F-E,S-D |
| · **Stowage Category** | B |

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| | |
|---|---|
| · **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: 5 L<br>On cargo aircraft only: 60 L |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 1L |
| · **Excepted quantities (EQ)** | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · **UN "Model Regulation":** | UN 1993 FLAMMABLE LIQUIDS, N.O.S. (METHANOL), 3, II |

## 15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
All ingredients are listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **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: 67-56-1 | Methanol (Methyl Alcohol) |

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **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).

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· **Hazard pictograms**



GHS02 GHS06 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Methanol (Methyl Alcohol)
Phenolphthalein

· **Hazard statements**
Highly flammable liquid and vapor.
Toxic if inhaled.
Suspected of causing genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to 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.
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.
Use only outdoors or in a well-ventilated area.
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 INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**
Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.

· **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**
09-11-2017: review SDS for accuracy. STN
Creation date for SDS 7-28-2014. STN
09/11/2017 / -
· **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
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
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1B: Carcinogenicity – Category 1B
Repr. 2: Reproductive toxicity – Category 2
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1