

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/20/2024

Reviewed on 05/20/2024

1 Identification

- **Product identifier**
- **Trade name:** Potassium Phosphate 0.01 Molar
Mobile Phase pH 2.30
- **Article number:** M-227
- **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
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

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**



GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**
Methanol
- **Hazard statements**
May cause damage to the central nervous system and the visual organs.
- **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF exposed or concerned: Call a poison center/doctor.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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



- **HMIS-ratings (scale 0 - 4)**

| | | |
|------------|---|----------------|
| HEALTH | 2 | Health = 2 |
| FIRE | 0 | Fire = 0 |
| REACTIVITY | 0 | 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: 67-56-1 | Methanol | 3.19% |
|--------------|----------|-------|

- **Table of Nonhazardous Ingredients**

| | | |
|-----------------|-------------------------------|---------|
| CAS: 7732-18-5 | Water | 96.663% |
| CAS: 7778-77-0 | Potassium Phosphate Monobasic | 0.137% |
| CAS: 26628-22-8 | Sodium Azide | 0.01% |

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **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:** 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.

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- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- **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: 67-56-1 | Methanol | 530 ppm |
| CAS: 7778-77-0 | Potassium Phosphate Monobasic | 9.6 mg/m ³ |
| CAS: 26628-22-8 | Sodium Azide | 0.026 mg/m ³ |

- **PAC-2:**

| | | |
|-----------------|-------------------------------|------------------------|
| CAS: 67-56-1 | Methanol | 2,100 ppm |
| CAS: 7778-77-0 | Potassium Phosphate Monobasic | 110 mg/m ³ |
| CAS: 26628-22-8 | Sodium Azide | 0.29 mg/m ³ |

- **PAC-3:**

| | | |
|-----------------|-------------------------------|-----------------------|
| CAS: 67-56-1 | Methanol | 7200* ppm |
| CAS: 7778-77-0 | Potassium Phosphate Monobasic | 630 mg/m ³ |
| CAS: 26628-22-8 | Sodium Azide | 5.3 mg/m ³ |

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:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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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:**

CAS: 67-56-1 Methanol

PEL Long-term value: 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm
 Long-term value: 260 mg/m³, 200 ppm
 Skin

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

· **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)

· **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.
 Wash hands before breaks and at the end of work.

· **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:**

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:** Goggles recommended during refilling.

· **Body protection:** Protective work clothing

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9 Physical and chemical properties

| | |
|--|-------------------------------|
| · <i>Information on basic physical and chemical properties</i> | |
| · <i>General Information</i> | |
| · <i>Appearance:</i> | |
| · <i>Form:</i> | <i>Liquid</i> |
| · <i>Color:</i> | <i>Clear</i> |
| · <i>Odor:</i> | <i>Odorless</i> |
| · <i>Odor threshold:</i> | <i>Not determined.</i> |
| · <i>pH-value:</i> <i>Not determined.</i> | |
| · <i>Change in condition</i> | |
| · <i>Melting point/Melting range:</i> | <i>0 °C (32 °F)</i> |
| · <i>Boiling point/Boiling range:</i> | <i>100 °C (212 °F)</i> |
| · <i>Flash point:</i> <i>Not applicable.</i> | |
| · <i>Flammability (solid, gaseous):</i> <i>Not applicable.</i> | |
| · <i>Decomposition temperature:</i> <i>Not determined.</i> | |
| · <i>Ignition temperature:</i> <i>Product is not selfigniting.</i> | |
| · <i>Danger of explosion:</i> <i>Product does not present an explosion hazard.</i> | |
| · <i>Explosion limits:</i> | |
| · <i>Lower:</i> | <i>Not determined.</i> |
| · <i>Upper:</i> | <i>Not determined.</i> |
| · <i>Vapor pressure at 20 °C (68 °F):</i> <i>23 hPa (17.3 mm Hg)</i> | |
| · <i>Density at 20 °C (68 °F):</i> <i>0.99248 g/cm³ (8.28225 lbs/gal)</i> | |
| · <i>Relative density</i> <i>Not determined.</i> | |
| · <i>Vapor density</i> <i>Not determined.</i> | |
| · <i>Evaporation rate</i> <i>Not determined.</i> | |
| · <i>Solubility in / Miscibility with</i> | |
| · <i>Water:</i> | <i>Fully miscible.</i> |
| · <i>Partition coefficient (n-octanol/water):</i> <i>Not determined.</i> | |
| · <i>Viscosity:</i> | |
| · <i>Dynamic:</i> | <i>Not determined.</i> |
| · <i>Kinematic:</i> | <i>Not determined.</i> |
| · <i>Solvent content:</i> | |
| · <i>Organic solvents:</i> | <i>3.2 %</i> |
| · <i>Water:</i> | <i>96.7 %</i> |
| · <i>VOC content:</i> | <i>3.19 %</i> |
| | <i>31.7 g/l / 0.26 lb/gal</i> |
| · <i>Solids content:</i> <i>0.1 %</i> | |
| · <i>Other information</i> <i>No further relevant information available.</i> | |

10 Stability and reactivity

· *Reactivity* *No further relevant information available.*

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- **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 | 3,135 mg/kg |
| Dermal | LD50 | 9,404 mg/kg |
| Inhalative | LC50/4h | 94 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)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **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 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.

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· **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

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADN, IMDG, IATA | Not regulated |
| · UN proper shipping name | |
| · DOT, ADN, IMDG, IATA | Not regulated |
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG, IATA | |
| · Class | Not regulated |
| · Packing group | |
| · DOT, IMDG, IATA | Not regulated |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Not regulated |

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):

| | |
|-----------------|--------------|
| CAS: 26628-22-8 | Sodium Azide |
|-----------------|--------------|

· Section 313 (Specific toxic chemical listings):

| | |
|--------------|----------|
| CAS: 67-56-1 | Methanol |
|--------------|----------|

| | |
|-----------------|--------------|
| CAS: 26628-22-8 | Sodium Azide |
|-----------------|--------------|

· TSCA (Toxic Substances Control Act):

| | |
|-------|--------|
| Water | ACTIVE |
|-------|--------|

| | |
|----------|--------|
| Methanol | ACTIVE |
|----------|--------|

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| | |
|---|--------------|
| Potassium Phosphate Monobasic | ACTIVE |
| Sodium Azide | ACTIVE |
| · Hazardous Air Pollutants | |
| CAS: 67-56-1 | Methanol |
| · Proposition 65 | |
| · Chemicals known to cause cancer: | |
| None of the ingredients is listed. | |
| · 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 |
| · Carcinogenic categories | |
| · EPA (Environmental Protection Agency) | |
| None of the ingredients is listed. | |
| · TLV (Threshold Limit Value) | |
| CAS: 26628-22-8 | Sodium Azide |
| | 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**



GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**
Methanol
- **Hazard statements**
May cause damage to the central nervous system and the visual organs.
- **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF exposed or concerned: Call a poison center/doctor.
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.

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

· **Contact:**

Date of Preparation / Last Revision:

· **Date of preparation / last revision**

Revision 1.2, 05/20/2024: Reviewed SDS for accuracy. MH/STN

Revision 0.0, 04-05-2022: Creation date for SDS. STN

05/20/2024

· **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

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

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

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