

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

## 1 Identification

- **Product identifier**
- **Trade name:** Sodium Phosphate / Acetonitrile 50:50
- **Article number:** DUP815
- **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.



GHS07

Acute Toxicity - Oral 4 H302 Harmful if swallowed.

Eye Irritation 2A H319 Causes serious eye irritation.

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



GHS02



GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Acetonitrile, Reagent ACS Grade
- **Hazard statements**  
Highly flammable liquid and vapor.  
Harmful if swallowed.  
Causes serious eye irritation.
- **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 1)

Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If swallowed: Call a poison center/doctor if you feel unwell.  
Rinse mouth.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If eye irritation persists: 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.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	3	Fire = 3
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: 75-05-8	Acetonitrile, Reagent ACS Grade	49.829%
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· **Table of Nonhazardous Ingredients**

CAS: 10049-21-5	Sodium Phosphate Monobasic Monohydrate	0.043%
CAS: 7664-38-2	Phosphoric Acid 85%	0.025%
CAS: 7732-18-5	Water	50.102%

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 2)

- **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:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** 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:**  
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** 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:**  
Prevent seepage into sewage system, workpits and cellars.  
Dilute with plenty of 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.

## 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 ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 3)

- **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: 75-05-8 Acetonitrile, Reagent ACS Grade**

PEL Long-term value: 70 mg/m<sup>3</sup>, 40 ppm

REL Long-term value: 34 mg/m<sup>3</sup>, 20 ppm

TLV Long-term value: 34 mg/m<sup>3</sup>, 20 ppm  
Skin

- **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.
- **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.

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 4)

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Colorless
· <b>Odor:</b>	Distinct
· <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>	100 °C (212 °F)

· **Flash point:** 20 °C (68 °F)

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

· **Ignition temperature:** 525 °C (977 °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:**

· <b>Lower:</b>	4.4 Vol %
· <b>Upper:</b>	16.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 97 hPa (72.8 mm Hg)

· **Density:** Not determined.

· **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.

· **Solvent content:**

· <b>Organic solvents:</b>	0.0 %
· <b>Water:</b>	50.1 %

(Contd. on page 6)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 5)

**Solids content:** 10.0 %

**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:**

**CAS: 75-05-8 Acetonitrile, Reagent ACS Grade**

Oral	LD50	2730 mg/kg (rat)
Dermal	LD50	1250 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

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

- **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.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 6)

- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **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>                                   | UN1993                                   |
| <b>· DOT, IMDG, IATA</b>                             |  |
| <b>· UN proper shipping name</b>                     | Flammable liquids, n.o.s. (Acetonitrile) |
| <b>· DOT</b>   | FLAMMABLE LIQUID, N.O.S. (ACETONITRILE)  |
| <b>· IMDG, IATA</b>                                  |  |
| <b>· Transport hazard class(es)</b>                  |  |
| <b>· DOT</b>   |  |
|  |  |
| <b>· Class</b>                                       | 3 Flammable liquids                      |
| <b>· Label</b>                                       | 3  |
|  |  |
| <b>· IMDG, IATA</b>                                  |  |
|  |  |
| <b>· Class</b>                                       | 3 Flammable liquids                      |
| <b>· Label</b>                                       | 3  |
| <b>· Packing group</b>                               | II                                       |
| <b>· DOT, IMDG, IATA</b>                             |  |
| <b>· Environmental hazards:</b>                      |  |
| <b>· Marine pollutant:</b>                           | No                                       |
| <b>· Special precautions for user</b>                | Warning: Flammable liquids               |
| <b>· Hazard identification number (Kemler code):</b> | 33                                       |

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

Reviewed on 03/03/2022

**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 7)

- |  |  |
|--|--|
| <b>· EMS Number:</b>   | <i>F-E,S-E</i>   |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | <i>Not applicable.</i>   |
| <b>· UN "Model Regulation":</b>  | <i>UN1993, Flammable liquids, n.o.s. (Acetonitrile), 3, II</i> |

## 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: 75-05-8	Acetonitrile, Reagent ACS Grade
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CAS: 7664-38-2	Phosphoric Acid 85%
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- **TSCA (Toxic Substances Control Act):**

*Acetonitrile, Reagent ACS Grade*

*Phosphoric Acid 85%*

- **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:**

*None of the ingredients is listed.*

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

CAS: 75-05-8	Acetonitrile, Reagent ACS Grade		
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*CBD, D*

- **TLV (Threshold Limit Value)**

CAS: 75-05-8	Acetonitrile, Reagent ACS Grade		
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*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    GHS07

- **Signal word** *Danger*

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/03/2022

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**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

(Contd. of page 8)

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

Acetonitrile, Reagent ACS Grade

- **Hazard statements**

Highly flammable liquid and vapor.

Harmful if swallowed.

Causes serious eye irritation.

- **Precautionary statements**

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.

Wash thoroughly after handling.

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

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

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

Rinse mouth.

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

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

Continue rinsing.

If eye irritation persists: 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.

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**

Creation date for SDS 07-22-2014 LS

03/03/2022 / -

- **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)

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

Flammable Liquids 2: Flammable liquids – Category 2

Acute Toxicity - Oral 4: Acute toxicity – Category 4

(Contd. on page 10)

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 03/03/2022

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**Trade name: Sodium Phosphate /  
Acetonitrile 50:50**

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A  
· **\* Data compared to the previous version altered.**

(Contd. of page 9)

US