

SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: September 6, 2018

SPI Catalog # 02622-AB

SPI-Chem™ Sodium Phosphate Monobasic, Hydrate

Section 1.1: Identification

Chemical Name/Synonyms Sodium phosphate monobasic hydrate; Monosodium dihydrogen phosphate monohydrate; Monosodium phosphate

Product or Trade Name: SPI-Chem™ Sodium Phosphate Monobasic, Hydrate

CAS #'s 10049-21-5

Chemical Formula..... $H_2NaO_4P \cdot H_2O$

Section 1.2: Relevant Uses/Restrictions

Laboratory chemical used in buffers.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance:

Not a hazardous substance or mixture.

2.2 Label elements:

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: none

Hazardous Material Information System USA

Health 0
Fire Hazard 0
Reactivity 0
Personal Protection

NFPA Rating (estimated)

Health 0
Flammability..... 0
Reactivity 0

Section 3: Composition

3.1 Substances:

Sodium Phosphate Monobasic hydrate
CAS # 10049-21-5
Formula: $H_2NaO_4P \cdot H_2O$
Molecular weight: 137.99
EC Number: 231-449-2
RTECS Number: WA1900000 (anhydrous form)

Section 4: First Aid Measures

4.1 Description of first aid measures:

Inhalation:

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Skin Contact:

In case of skin contact, wash off with soap and plenty of water.

Eye Contact:

In case of eye contact, flush eyes with water as a precaution.

Ingestion:

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Self-protection of the first aider: No additional relevant information available.

4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2 Special hazards arising from the substance or mixture:

No data available.

5.3 Hazardous combustion products:

Hazardous decomposition products formed under fire conditions: Oxides of phosphorus, Sodium oxides.

5.4 Advice for firefighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Special protective equipment and precautions for firefighters:

No further relevant information available.

Section 6: Accidental Release Measures

6.1 Personal precautions:

Avoid dust formation.

Avoid breathing vapors, mist, or gas.

For personal protection see Section 8.

6.2 Environmental precautions:

No special environmental precautions required.

6.3 Methods and material for containment and cleaning up:

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections:

See Section 13 for disposal information.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Further processing of solid materials may result in the formation of combustible dusts.

The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions, see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic.

Storage class: (TRGS 510): 13: Non Combustible Solids

7.3 Specific end uses:

Laboratory chemical used in buffers.

This material is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection:

Workplace exposure limits: This substance contains no substances with occupational exposure limit values.

Biological limit values: No data available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

General industrial hygiene practice.

8.2.2 Individual protection measures:

Eye / face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) OR EN 166 (EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Suggested material: Nitrile rubber, minimum layer thickness of 0.11 mm, with a break through time of 480 minutes.

Body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) OR CEN (EU).

8.2.3 Environmental exposure controls: No special environmental precautions required.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance: White, crystalline solid

Odor: No data available

Odor threshold: No data available

pH: 4.1-4.5 @ 50 g/l @ 25 °C (77 °F)

Melting point/Freezing point: No data available

Boiling point/Boiling point range: No data available

Flash Point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor Pressure: No data available

Vapor density: No data available

Relative density: No data available

Solubility: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available
Oxidizing Properties: No data available

9.2 Other information: No data available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available.

10.2 Chemical Stability: Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions: No data available.

10.4 Conditions to avoid: Avoid moisture – product is hygroscopic.

10.5 Incompatible materials: Strong oxidizing agents; Strong acids.

10.6 Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions: Oxides of phosphorus, Sodium oxides.
In the event of fire: see Section 5.

Other decomposition products – No data available.

Section 11: Toxicological Information

Information on the likely routes of exposure:

11.1 Information on toxicological effects:

A. Acute toxicity:

LD50 Oral, Rat >2,000 mg/kg (OECD Test Guideline 401)

LC50 Inhalation, Rat 4h >0.83 mg/l (OECD Test Guideline 403)
male & female highest concentration to be prepared

LD50 Dermal, Rabbit >7,940 mg/kg (anhydrous substance) (IUCLID)

B. Skin corrosion/irritation:

Skin, Rabbit Result: No skin irritation – 4 h (OECD Test Guideline 404)

C. Serious eye damage/irritation:

Eyes, Rabbit Result: Slight irritation Remarks: (IUCLID)

D. Respiratory or skin sensitization:

Sensitization test: Mouse (OECD Test Guideline 429)

E. Germ cell mutagenicity:

No data available

Mutagenicity (mammal cell test): micronucleus Human lymphocytes Result: negative

F. Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

G. Reproductive toxicity:

No data available.

H. STOT-single exposure:

No data available.

I.. STOT-repeated exposure:

No data available.

J. Aspiration hazard:

No data available.

Section 12: Ecological Information**12.1 Toxicity:**

Toxicity to fish:

LC0 – Leuciscus idus (Golden orfe) – ca. 2,400 mg/l 48 h (OECD Test Guideline 203)

Remarks: (anhydrous substance)

12.2 Persistence and degradability:

No data available.

12.3 Bio-accumulative potential:

No data available.

12.4 Mobility in soil:

No data available.

12.5 Results of PBT and vPvB assessment:

PBT/vPvB assessment not available as chemical safety assessment not required/ not conducted.

12.6 Other adverse effects:

No data available.

Discharge into the environment must be avoided.

Depending on the concentration, phosphates may contribute to the eutrophication of water supplies.

Section 13: Disposal Considerations**13.1 Waste treatment methods:**

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

Section 14: Transport Information

DOT: Not dangerous goods.

IATA: Not dangerous goods.

IMDG: Not dangerous goods.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture:

U.S. Government Regulations:

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

This material does not contain any SARA Hazards.

STATE Right-to-Know Lists:

Massachusetts Right To Know Components:

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components:

Sodium dihydrogenorthophosphate monohydrate CAS # 10049-21-5

New Jersey Right To Know Components:

Sodium dihydrogenorthophosphate monohydrate CAS # 10049-21-5

California Proposition 65 Components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

15.2 Chemical Safety Assessment: Has not been carried out.

Date of Preparation: 06 September 2018

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

CMRG: Chemical Manufacturer's Recommended Guidelines

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene 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, Bio-accumulative and Toxicological
vPvB: very Persistent and very Bio-accumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
ATE: Acute Toxicity Estimates
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
STEL: Short Term Exposure Limit
CEIL: Ceiling
TSCA: Toxic Substances Control Act (USA)
DSL: Domestic Substances List (Canada)
PICCS: Philippine Inventory of Chemicals and Chemical Substances
ENCS: Existing and New Chemical Substances (Japan)
AICS: Australian Inventory of Chemical Substances
IECSC: Inventory of Existing Chemical Substances in China
KECL: Korea Existing Chemicals List

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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