

Section 1 - Identification

Product Name Sodium phosphate (monobasic, dihydrate)
CAS No 13472-35-0
Synonyms Sodium dihydrogen phosphate dihydrate

Product Code **S/P520/63, S/P520/53**
Address ThermoFisher Scientific Australia Pty Ltd
 5 Caribbean Drive, Scoresby
 VICTORIA 3179, Australia
Emergency Tel. **CHEMTREC®**
03 9757 4559 or +613 9757 4559
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Recommended Use Laboratory chemicals.

Uses advised against This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.
 This product does not contain any substance(s) subject to Prohibition, Authorization or
 Restriction. This product does not contain any substance(s) listed on the voluntary National
 Code of Practice for Chemicals of Security Concern.

Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as not hazardous according to criteria of Safe Work Australia.

Physical hazards
 No hazards identified

Health hazards
 No hazards identified

Environmental hazards
 No hazards identified

Label Elements None required

Other information

Section 3 - Composition and Information on Ingredients

| Component | CAS No | Weight % |
|---------------------------------------|------------|----------|
| Sodium phosphate, monobasic dihydrate | 13472-35-0 | >95 |
| Sodium phosphate, monobasic | 7558-80-7 | - |

Section 4 - First Aid Measures

| | |
|--|---|
| Inhalation | Remove to fresh air. Get medical attention immediately if symptoms occur. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Self-Protection of the First Aider | No special precautions required. |
| First Aid Facilities | Eyewash, safety shower and washroom. |
| Most important symptoms and effects | . May be harmful if absorbed through skin: May cause adverse kidney effects: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea |
| Notes to Physician | Treat symptomatically. |

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons

No information available.

Hazardous Decomposition Products

Oxides of phosphorus.

Specific Hazards Arising from the Chemical

Non-combustible. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 - Accidental Release Measures

Emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

Clean-up methods - large spillage

Not applicable, packaged goods.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid ingestion and inhalation. Avoid contact with skin, eyes or clothing. Avoid dust formation.

Conditions for Safe Storage, Including any Incompatibilities

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

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

Section 8 - Exposure Controls and Personal Protection

Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established.

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Exposure Controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | AUS/NZ Standard | Glove comments |
|----------------|-----------------------------------|-----------------|-----------------|-----------------------|
| Natural rubber | See manufacturers recommendations | - | AS/NZS 2161 | (minimum requirement) |
| Nitrile rubber | | | | |
| Neoprene | | | | |
| PVC | | | | |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

Recommended Filter type:

Particle filter (or AUS/NZ equivalent)

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

No information available.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

| | | |
|--|--------------------------|--|
| Appearance | White | |
| Physical State | Solid | |
| Odor | Odorless | |
| Odor Threshold | No data available | |
| pH | 4.4-4.6 @ 20°C | (10 g/l aq.sol) |
| Melting Point/Range | 60 °C / 140 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | No information available | |
| Flash Point | No information available | Method - No information available |
| Evaporation Rate | Not applicable | Solid |
| Flammability (solid,gas) | No information available | |
| Explosion Limits | No data available | |
| Vapor Pressure | No data available | |
| Vapor Density | Not applicable | Solid |
| Specific Gravity / Density | No data available | |
| Bulk Density | No data available | |
| Water Solubility | Soluble | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Autoignition Temperature | No data available | |
| Decomposition Temperature | No data available | |
| Viscosity | Not applicable | Solid |
| Explosive Properties | No information available | |
| Oxidizing Properties | No information available | |
| Other information | | |
| Molecular Formula | H2 Na O4 P . 2 H2 O | |
| Molecular Weight | 156.01 | |

Section 10 - Stability and Reactivity

| | |
|---|--|
| Reactivity | None known, based on information available |
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products, Temperatures above 169°C, Avoid dust formation, Exposure to moist air or water. |
| Incompatible Materials | Strong oxidizing agents, Strong acids, Strong bases. |
| Hazardous Decomposition Products | Oxides of phosphorus. |

Hazardous Polymerization

Hazardous polymerization does not occur.

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

(a) acute toxicity;

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------------|---------------------------|------------------------------|------------------------------|
| Sodium phosphate, monobasic | LD50 = 8290 mg/kg (Rat) | LD50 > 7940 mg/kg (Rabbit) | LC50 > 0.83 mg/L (Rat) 4 h |

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

(e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

(f) carcinogenicity;

Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;

Based on available data, the classification criteria are not met

(h) STOT-single exposure;

Based on available data, the classification criteria are not met

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

None known.

(j) aspiration hazard;

Not applicable

Solid

Other Adverse Effects

May cause respiratory irritation May be harmful if swallowed

Symptoms / effects, both acute and delayed

May be harmful if absorbed through skin: May cause adverse kidney effects: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Section 12 - Ecological Information

Ecotoxicity effects

Do not empty into drains. Do not flush into surface water or sanitary sewer system.

Persistence and Degradability

Readily biodegradable

Persistence

Soluble in water, Persistence is unlikely, based on information available.

Degradability

Not relevant for inorganic substances.

Bioaccumulative Potential

Bioaccumulation is unlikely

Mobility

The product is water soluble, and may spread in water systems. Will likely be mobile in the

| | |
|--|---|
| Endocrine Disruptor Information | environment due to its water solubility Highly mobile in soils |
| Persistent Organic Pollutant | This product does not contain any known or suspected endocrine disruptors |
| Ozone Depletion Potential | This product does not contain any known or suspected substance |

Section 13 - Disposal Considerations

| | |
|--|--|
| Waste from Residues/Unused Products | Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations. |
| Contaminated Packaging | Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers. |
| Other Information | Chemical wastes should be disposed through a licensed commercial waste collection service. |

Section 14 - Transport Information

| | |
|-------------------------------|---------------------------------|
| IMDG/IMO | Not regulated |
| ADG | Not regulated |
| IATA | Not regulated |
| Environmental hazards | No hazards identified |
| Special Precautions | No special precautions required |
| Additional information | None known |

Section 15 - Regulatory Information

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

National Regulations **Australia**

See section 8 for national exposure control parameters.

Standard for the Uniform Scheduling of Medicines and Poisons

No poison schedule number allocated.

Australian Industrial Chemicals Introduction Scheme (AICIS)

| Component | Australian Industrial Chemicals Introduction Scheme (AICIS) | Additional information |
|--|---|------------------------|
| Sodium phosphate, monobasic dihydrate - 13472-35-0 | Present | - |
| Sodium phosphate, monobasic - 7558-80-7 | Present | - |

Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemicals of Security Concern

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

National pollutant inventory Not applicable

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

International Inventories

| Component | AICS | NZIoC | EINECS | ELINCS | TSCA | DSL | NDSL | PICCS | ENCS | ISHL | IECSC | KECL |
|---------------------------------------|------|-------|-----------|--------|------|-----|------|-------|------|------|-------|----------|
| Sodium phosphate, monobasic dihydrate | X | X | - | - | - | - | - | X | X | | X | - |
| Sodium phosphate, monobasic | X | X | 231-449-2 | - | X | X | - | X | X | X | X | KE-31577 |

Legend: X - Listed. '-' - Not Listed. **KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their disposal

Not applicable.

| Component | CAS No | OECD HPV | Restriction of Hazardous Substances (RoHS) | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---------------------------------------|------------|----------|--|---|--|
| Sodium phosphate, monobasic dihydrate | 13472-35-0 | Listed | Not applicable | Not applicable | Not applicable |
| Sodium phosphate, monobasic | 7558-80-7 | Listed | Not applicable | Not applicable | Not applicable |

Authorisation/Restrictions according to EU REACH Not applicable

| Component | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High |
|-----------|---|---|--|
|-----------|---|---|--|

| | | | |
|-----------------------------|---|---|----------------|
| | | | Concern (SVHC) |
| Sodium phosphate, monobasic | - | - | - |

Section 16 - Other Information

Legend

| | |
|--|--|
| AICS - Australian Inventory of Chemical Substances | NZIoC - New Zealand Inventory of Chemicals |
| TSCA - United States Toxic Substances Control Act Section 8(b) Inventory | EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances |
| DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List | ENCS - Japanese Existing and New Chemical Substances |
| IECSC - Chinese Inventory of Existing Chemical Substances | KECL - Korean Existing and Evaluated Chemical Substances |
| PICCS - Philippines Inventory of Chemicals and Chemical Substances | CAS - Chemical Abstracts Service |
| TWA - Time Weighted Average | ACGIH - American Conference of Governmental Industrial Hygienists |
| IARC - International Agency for Research on Cancer | Predicted No Effect Concentration (PNEC) |
| ICAO/IATA - International Civil Aviation Organization/International Air Transport Association | IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code |
| MARPOL - International Convention for the Prevention of Pollution from Ships | ADG Australian Code for the Transport of Dangerous Goods by Road and Rail |
| NZS 5433:2012 - Transport of Dangerous Goods on Land | OECD - Organisation for Economic Co-operation and Development |
| LD50 - Lethal Dose 50% | LC50 - Lethal Concentration 50% |
| EC50 - Effective Concentration 50% | ATE - Acute Toxicity Estimate |
| WEL - Workplace Exposure Limit | RPE - Respiratory Protective Equipment |
| DNEL - Derived No Effect Level | NOEC - No Observed Effect Concentration |
| POW - Partition coefficient Octanol:Water | BCF - Bioconcentration factor |
| vPvB - very Persistent, very Bioaccumulative | PBT - Persistent, Bioaccumulative, Toxic |
| VOC - (Volatile Organic Compound) | |

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date 18-Nov-2022
Revision Summary Not applicable.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet