



Safety Data Sheet

Monosodium Phosphate, Anhydrous

Section 1 - Product and Company Identification

Material Name	▪ Monosodium Phosphate, Anhydrous
CAS Number	▪ 7558-80-7
EINECS	▪ 231-449-2
Molecular Formula	▪ NaH ₂ PO ₄
Molecular Weight	▪ 119.98
Product Description	▪ White powder solid with noodor.
Synonyms	▪ Sodium Biphosphate; Sodium Phosphate, Monobasic
Manufacturer	▪ Global Chemical Resources 1925 Nebraska Avenue Toledo, OH 43607 United States
Telephone	
Technical	▪ 419-242-1004
<u>Emergency</u>	▪ 800-424-9300
Preparation Date	5-1-2015
Last Revision Date	5-1-2015

Section 2 - Hazards Identification

Emergency Overview

WARNING

Causes skin irritation. Causes serious eye irritation.

Prevention	Wear protective gloves, clothing , and eye/face protection -safety glasses. Wash thoroughly after handling.
Response	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. 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.
Storage/Disposal	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.



OSHA

- Irritant

WHMIS

- None

EU

- Irritant - Xi
R36/38



GHS

- Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A

Route Of Entry

- Inhalation, Skin

Medical Conditions Aggravated by Exposure

- Disorders of the lungs, Skin

NFPA:



Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation.

Chronic (Delayed)

- No data available.

Skin

Acute (Immediate)

- May cause irritation.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- May cause irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- May cause irritation, nausea, vomiting, diarrhea, abdominal pain.

Chronic (Delayed)

- No data available.

Carcinogenic Effects

- This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Section 3 - Composition/Information on Ingredients

Hazardous Components						
Chemical Name	CAS	%(weight)	UN;EINECS	LD50/LC50	EU Classification & R Phrases	Other
Sodium salt (1:1) phosphoric acid	7558-80-7	100%	231-449-2	Ingestion/Oral-Rat LD50: =8290 mg/kg	NDA	NDA

Under United States Regulations (29 CFR 1900.1200 - Hazard Communication Standard), this product is considered hazardous. In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS). This product is considered dangerous according to the European Directive 67/548/EEC. According to the Globally Harmonized Standard for Classification and Labeling (GHS) this product is considered hazardous.

Section 4 - First Aid Measures

- | | |
|---------------------------|--|
| Inhalation | <ul style="list-style-type: none">▪ Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention. |
| Skin | <ul style="list-style-type: none">▪ IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. |
| Eye | <ul style="list-style-type: none">▪ Flush eyes with water for at least 15 minutes while holding eyelids open. Remove contact lenses if worn. If eye irritation persists: Get medical advice/attention. |
| Ingestion | <ul style="list-style-type: none">▪ Do not induce vomiting unless instructed to do so by a physician. If victim is conscious and alert, give 2-3 glasses of water to drink. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical. |
| Notes to Physician | <ul style="list-style-type: none">▪ All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Ingestion of large quantities of phosphate salts (over 1.0 grams for an adult) may cause an osmotic catharsis resulting in diarrhea and probable abdominal cramps. Larger doses such as 4-8 grams will almost certainly cause these effects in everyone. In healthy individuals most of the ingested salt will be excreted in the feces with the diarrhea and, thus, not cause any systemic toxicity. Doses greater than 10 grams hypothetically may cause systemic toxicity. Treatment should take into consideration both anionic and cation portion of the molecule. |
| Other Information | <ul style="list-style-type: none">▪ Call 911 or emergency medical service. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

Section 5 - Fire Fighting Measures

- | | |
|---|--|
| Extinguishing Media | <ul style="list-style-type: none">▪ Not combustible. Use extinguishing media suitable for surrounding fire. |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none">▪ None known. |
| Firefighting Procedures | <ul style="list-style-type: none">▪ Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. |
| Unusual Fire and Explosion Hazards | <ul style="list-style-type: none">▪ Non-combustible. |
| Hazardous Combustion Products | <ul style="list-style-type: none">▪ Oxides of sodium, oxides of phosphorus. |
| Protection of Firefighters | <ul style="list-style-type: none">▪ Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. |

Section 6 - Accidental Release Measures

- | | |
|--------------------------------------|---|
| Personal Precautions | <ul style="list-style-type: none">▪ Do not touch or walk through spilled material. |
| Emergency Procedures | <ul style="list-style-type: none">▪ Keep unauthorized personnel away. |
| Environmental Precautions | <ul style="list-style-type: none">▪ LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas. |
| Containment/Clean-up Measures | <ul style="list-style-type: none">▪ Sweep or vacuum up and place in an appropriate closed container. Avoid generating dust. Clean up residual material by washing area with water and detergent. Collect washings for disposal. |
| Prohibited Materials | <ul style="list-style-type: none">▪ None known. |

Section 7 - Handling and Storage

- Handling** ▪ Avoid breathing dust. Avoid direct or prolonged contact with skin and eyes.
Storage ▪ Store in a cool, dry place. Store in a tightly closed container.
Special Packaging Materials ▪ Recommended container material: stainless steel.
Incompatible Materials or Ignition Sources ▪ None known.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms



Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety glasses.

Hands

- Wear appropriate gloves.

General Industrial Hygiene Considerations

- Do not use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Exposure Limits/Guidelines						
	Result	ACGIH	Argentina	Canada Ontario	Canada Quebec	China
Monosodium Phosphate, Anhydrous	STELs	Not established	Not established	Not established	Not established	16 mg/m ³ STEL (free SiO ₂ <10%, except asbestos and toxic substances. Use PC-STEL of silica When free SiO ₂ >10%, total) <i>as Particulates not otherwise classified</i>
	TWAs	10 mg/m ³ TWA (inhalable particles, recommended); 3 mg/m ³ TWA (respirable particles, recommended) <i>as Particulates not otherwise classified</i>	10 mg/m ³ TWA (inhalable fraction, particulate matter containing no asbestos and less than 1% crystalline silica); 3 mg/m ³ TWA (respirable fraction, particulate matter containing no asbestos and less than 1% crystalline silica) <i>as Particulates not otherwise classified</i>	10 mg/m ³ TWAEV (inhalable particulate); 3 mg/m ³ TWAEV (respirable particulate) <i>as Particulates not otherwise classified</i>	10 mg/m ³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica) <i>as Particulates not otherwise classified</i>	8 mg/m ³ TWA (free SiO ₂ <10%, except asbestos and toxic substances. Use PC-TWA of silica When free SiO ₂ >10%, total) <i>as Particulates not otherwise classified</i>
Exposure Limits/Guidelines (Con't.)						

	Result	Malaysia	New Zealand	OSHA	OSHA Vacated	Singapore
Monosodium Phosphate, Anhydrous	TWAs	10 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica, inhalable fraction); 3 mg/m ³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction) <i>as Particulates not otherwise classified</i>	10 mg/m ³ TWA (inspirable dust); 3 mg/m ³ TWA (respirable dust) <i>as Particulates not otherwise classified</i>	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) <i>as Particulates not otherwise classified</i>	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) <i>as Particulates not otherwise classified</i>	10mg/m ³ PEL <i>as Particulates not otherwise classified</i>

Key to abbreviations

MSHA = Mine Safety and Health Administration

NIOSH = National Institute of Occupational Safety and Health

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

TWAEV = Time-Weighted Average Exposure Value

ACGIH = American Conference of Governmental Industrial Hygiene

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

Physical Form

- Solid

Appearance/Description

- White powder solid with no odor.

Color : White		Odor : Odorless	
Taste : NDA		Odor Threshold : NDA	
Boiling Point:	NDA	Vapor Pressure:	NDA
Melting Point:	NDA	Vapor Density:	NDA
Specific Gravity:	NDA	Evaporation Rate:	NDA
Density:	NDA	VOC (Wt.):	NDA
Bulk Density:	NDA	VOC (Vol.):	NDA
pH:	4.5 (@ 1 wt/wt%)	Volatiles:	NDA
Water Solubility:	Soluble 48 %	Volatiles (Vol.):	NDA
Solvent Solubility:	NDA	Flash Point:	NDA
Viscosity:	NDA	Flash Point Test Type:	NDA
Half-Life:	NDA	UEL:	NDA
Octanol/Water Partition coefficient:	NDA	LEL:	NDA
Coefficient of water/oil distribution:	NDA	Autoignition:	NDA
Bioaccumulation Factor:	NDA	Bioconcentration Factor:	NDA
Biochemical Oxygen Demand BOD/BOD ₅ :	NDA	Chemical Oxygen Demand:	NDA
Persistence:	NDA	Degradation:	NDA

Section 10 - Stability and Reactivity

Stability

- Stable under normal temperatures and pressures.

- Hazardous Polymerization** ▪ Hazardous polymerization will not occur.
- Conditions to Avoid** ▪ Moisture.
- Incompatible Materials** ▪ None known.
- Hazardous Decomposition** ▪ Oxides of phosphorus. Oxides of sodium.
- Products**

Section 11 - Toxicological Information

Monosodium Phosphate, Anhydrous				7558-80-7					
Test Type	Dosage	Units	Route	Species	Duration	Results	Test Class	Target Organs	Comments
Irritation	150	mg/kg	Eye	Rabbit	NDA	NDA	Mild irritation	NDA	Standard Draize Test.
Acute Toxicity	8290	mg/kg	Ingestion/Oral	Rat	NDA	LD50	NDA	NDA	NDA

Key to abbreviations

LD = Lethal Dose

Section 12 - Ecological Information

- Ecological Fate** ▪ No data found for product.
- Persistence/Degradability** ▪ No data found for product.
- Bioaccumulation Potential** ▪ No data found for product.
- Mobility in Soil** ▪ No data found for product.

Section 13 - Disposal Considerations

- Product** ▪ Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transportation Information

DOT - United States - Department of Transportation

Shipping Name: Not Regulated

TDG - Canada - Transport of Dangerous Goods

Shipping Name: Not Regulated

IMO/IMDG - International Maritime Transport

Shipping Name: Not Regulated

ADN - Europe Transport of Dangerous Goods by Road/Inland Waterway

Shipping Name: Not Regulated

IATA - International Air Transport Association

Shipping Name: Not Regulated

ADR - Europe Transport of Dangerous Goods by Road/Inland Waterway

Shipping Name: Not Regulated

RID - Europe Transport of Dangerous Goods by Railways

Shipping Name: Not Regulated

Section 15 - Regulatory Information

- SARA Hazard Classifications** ▪ Acute
- Risk & Safety Phrases** ▪ R36/38 Irritating to eyes and skin.
 ▪ S24/25 Avoid contact with skin and eyes.
 ▪ S22 Do not breathe dust.

Inventory						
Component	CAS	Australia AICS	Canada DSL	Canada NDSL	China	EUEINECS
Sodium salt (1:1) phosphoric acid	7558-80-7	Yes	Yes	No	Yes	Yes

Inventory (Con't.)						
Component	CAS	EU ELNICS	Japan ENCS	Korea KECL	New Zealand	Philippines PICCS
Sodium salt (1:1) phosphoric acid	7558-80-7	No	Yes	Yes	Yes	Yes

Inventory (Con't.)			
Component	CAS	Switzerland SWISS	TSCA
Sodium salt (1:1) phosphoric acid	7558-80-7	No	Yes

Australia**Environment**

Australia - National Pollutant Inventory (NPI) Substance List

None Listed

Australia - Priority Existing Chemical Program

None Listed

Other

The Australia Group - Export Control List - Chemical Weapons Precursors

None Listed

Canada**Labor**

Canada - List of Prohibited and Restricted Cosmetic Ingredients (The Cosmetic Ingredient Hotlist)

None Listed

Canada - WHMIS - Classifications of Substances

- Monosodium

Phosphate, Anhydrous 7558-80-7 Uncontrolled product according to WHMIS classification criteria
 (Chemical Name-Sodium acid phosphate)

Canada - WHMIS - Ingredient Disclosure List

None Listed

Environment

Canada - CEPA - Priority Substances List

None Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

None Listed

China - Dangerous Goods List

None Listed

Croatia

Environment

Croatia - Air Quality - Emission Limits for Stationary Sources

None Listed

Croatia - Air Quality - Limit Values for Gaseous Pollutants

None Listed

Croatia - Air Quality - Recommended Values for Gaseous Pollutants

None Listed

Croatia - Ozone Depleting Substances - Annex A, Group I

None Listed

Egypt

Environment

Egypt - Air Pollutants - Emissions Limits - Overall Particles

None Listed

Egypt - Air Pollutants - Maximum Limits

None Listed

Europe

Environment

EU - Substances Depleting the Ozone layer (1005/2009) - Annex I Substances

None Listed

EU - Seveso II Directive (96/82/EC) - Qualifying Quantities for Major Accident Notification

None Listed

EU - Seveso II Directive (96/82/EC) - Qualifying Quantities for Safety Report Requirements

None Listed

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

None Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

None Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

None Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

None Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

None Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2002/95/EC) (RoHS)

None Listed

India

Environment

India - Hazardous Chemical Rules - List of Hazardous and Toxic Chemicals

None Listed

India - Ozone Depleting Substances - Schedule I

None Listed

Indonesia

Environment

Indonesia - Hazardous Waste from Non-Specific Sources

None Listed

Indonesia - Hazardous Waste from Specific Sources
None Listed

Japan

Labor

Japan - ISHL Dangerous Substances
None Listed

Japan - ISHL Designated Carcinogens
None Listed

Japan - ISHL Harmful Substances Prohibited for Manufacture
None Listed

Environment

Japan - Air Pollution Control Law - Emission Standards for Air Pollutants
None Listed

Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)
None Listed

Korea

Labor

Korea - MOE - Harmful Substances
None Listed

Korea - ISHA - Name, Toxicity and Protective Measures of New Chemical Substances
None Listed

Environment

Korea - MOE - Toxic Chemicals Control Act (TCCA) - Observational Chemicals
None Listed

Malaysia

Labor

Malaysia - Occupational Safety & Health - Risk Phrases
None Listed

Malaysia - Occupational Safety & Health - Safety Phrases
None Listed

Environment

Malaysia - Clean Air Regulations - Noxious and Offensive Substances
None Listed

Mexico

Environment

Mexico - Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
None Listed

Other

Mexico - Hazard Classifications
None Listed

Mexico - Regulated Substances
None Listed

New Zealand

Other

New Zealand - Ozone Depleting Substances
None Listed

Other Agency Information

Other

AIHA - Emergency Response Planning Guidelines - ERPG-1 Values

None Listed

AIHA - Emergency Response Planning Guidelines - ERPG-2 Values

None Listed

AIHA - Emergency Response Planning Guidelines - ERPG-3 Values

None Listed

Philippines

Environment

Philippines - Ozone Depleting Substances - Annex A - Group I

None Listed

Other

Philippines - Priority Chemical List

None Listed

Singapore

Environment

Singapore - Air Impurities Emission Limits

None Listed

Singapore - List of Hazardous Substances

None Listed

South Africa

Labor

South Africa - General Machinery Regulations - Notifiable Substances

None Listed

Taiwan

Environment

Taiwan - Toxic Chemical Substances Control Act - Threshold Regulated Quantities

None Listed

Taiwan - Toxic Chemical Substances Control Act - Classification and Control Levels

None Listed

Thailand

Labor

Thailand - Air Contaminant Standards

None Listed

Environment

Thailand - Quantities of Chemicals

None Listed

Other

Thailand - Hazardous Substances

None Listed

United States

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

None Listed

U.S. - CAA (Clean Air Act) - Class I Ozone Depletors

None Listed

U.S. - CAA (Clean Air Act) - Class II Ozone Depletors

None Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

None Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

None Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

None Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

None Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

None Listed

U.S. - SDWA (Safe Drinking Water Act) - CCL (Contaminant Candidate List)

None Listed

Vietnam

Environment

Vietnam - Air Quality - Ambient Air Quality Standards

None Listed

Vietnam - Air Quality - Industrial Emission Standards

None Listed

Vietnam - Air Quality - Maximum Allowable Concentration of Highly Hazardous Chemicals

None Listed

Other Information

- FDA Status: This product meets the compositional requirements of: 21 CFR 182.1778 SODIUM PHOSPHATE

Section 16 - Other Information

Preparation Date 5-1-2015

Last Revision Date 5-1-2015

Disclaimer/Statement of Liability ▪ The information herein is given in good faith but no warranty, expressed or implied, is made.

Key to abbreviations

NDA = No Data Available