# SIGMA-ALDRICH

## **Material Safety Data Sheet**

Version 4.1 Revision Date 07/07/2011 Print Date 09/16/2011

1. PF	1. PRODUCT AND COMPANY IDENTIFICATION					
	Product name	:	Sodium phosphate			
	Product Number Brand	:	342483 Aldrich			
	Supplier	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA			
	Telephone	:	+1 800-325-5832			
	Fax	:	+1 800-325-5052			
	Emergency Phone # (For both supplier and manufacturer)	:	(314) 776-6555			
	Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956			

## 2. HAZARDS IDENTIFICATION

## **Emergency Overview**

OSHA Hazards Corrosive

## **GHS Classification**

Skin corrosion (Category 1B) Serious eye damage (Category 1) Acute aquatic toxicity (Category 3)

## GHS Label elements, including precautionary statements

Pictogram



Signal word	Danger
Hazard statement(s) H314 H402	Causes severe skin burns and eye damage. Harmful to aquatic life.
Precautionary statement(s P280 P305 + P351 + P338 P310	<ul> <li>Wear protective gloves/ protective clothing/ eye protection/ face protection.</li> <li>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>Immediately call a POISON CENTER or doctor/ physician.</li> </ul>
HMIS Classification Health hazard: Flammability: Physical hazards:	3 0 0
NFPA Rating Health hazard: Fire: Reactivity Hazard:	3 0 0

## **Potential Health Effects**

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	: Trisodium phosph	ate	
Formula Molecular Weight	: Na <sub>3</sub> O <sub>4</sub> P : 163.94 g/mol		
CAS-No.	EC-No.	Index-No.	Concentr

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Trisodium orthophosphate						
7601-54-9	231-509-8	-	-			

## **4. FIRST AID MEASURES**

## General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

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

## In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

## In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## **5. FIRE-FIGHTING MEASURES**

## Suitable extinguishing media

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

#### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### Hazardous combustion products

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

## 6. ACCIDENTAL RELEASE MEASURES

#### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

## Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

## Conditions for safe storage

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

Moisture sensitive.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Trisodium orthophosphate	7601-54-9	STEL	5 mg/m3	USA. Workplace Environmental Exposure Levels (WEEL)

## Personal protective equipment

## **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## Hand 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.

## Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

## Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form	solid
Colour	no data available
Safety data	
рН	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available

Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

## **10. STABILITY AND REACTIVITY**

## Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions no data available

Conditions to avoid no data available

Materials to avoid Strong acids

## Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus, Sodium oxides Other decomposition products - no data available

## **11. TOXICOLOGICAL INFORMATION**

## Acute toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50

no data available

Other information on acute toxicity no data available

## Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

**Respiratory or skin sensitization** no data available

## Germ cell mutagenicity

no data available

## 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.

## **Reproductive toxicity**

no data available

#### Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System) no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) no data available

## Aspiration hazard

no data available

## Potential health effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.

#### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Synergistic effects no data available

Additional Information RTECS: TC9490000

## **12. ECOLOGICAL INFORMATION**

## Toxicity

Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 28.5 mg/l - 96 h

## Persistence and degradability no data available

**Bioaccumulative potential** no data available

Mobility in soil no data available

#### **PBT and vPvB assessment** no data available

#### Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

no data available

## **13. DISPOSAL CONSIDERATIONS**

## Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

## Contaminated packaging

Dispose of as unused product.

## **14. TRANSPORT INFORMATION**

## DOT (US)

UN number: 3262 Class: 8 Packing group: III Proper shipping name: Corrosive solid, basic, inorganic, n.o.s. (Trisodium orthophosphate) Reportable Quantity (RQ): 5000 lbs Marine pollutant: No Poison Inhalation Hazard: No

## IMDG

UN number: 3262 Class: 8 Packing group: III EMS-No: F-A, S-B Proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Trisodium orthophosphate) Marine pollutant: No

## ΙΑΤΑ

UN number: 3262 Class: 8 Packing group: III Proper shipping name: Corrosive solid, basic, inorganic, n.o.s. (Trisodium orthophosphate)

## **15. REGULATORY INFORMATION**

## **OSHA Hazards**

Corrosive

## SARA 302 Components

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

#### SARA 313 Components

SARA 313: 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

Acute Health Hazard

## Massachusetts Right To Know Components

Trisodium orthophosphate	CAS-No. 7601-54-9	Revision Date 2007-03-01
Pennsylvania Right To Know Components		
Trisodium orthophosphate	CAS-No. 7601-54-9	Revision Date 2007-03-01
New Jersey Right To Know Components		
Trisodium orthophosphate	CAS-No. 7601-54-9	Revision Date 2007-03-01

## California Prop. 65 Components

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

## **16. OTHER INFORMATION**

#### **Further information**

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