


[Chromium Phosphate Tetrahydrate](#)

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Linear Formula	CrPO <sub>4</sub> • 4H <sub>2</sub> O
Pubchem CID	53471880
MDL Number	MFCD00016049
EC No.	232-141-0
IUPAC Name	chromium(3+) phosphate tetrahydrate
Beilstein/Reaxys No.	N/A
SMILES	O.O.O.O.[O-]P(=O)([O-])[O-].[Cr+3]
Inchi Identifier	InChI=1S/Cr.H3O4P.4H2O/c;1-5(2,3)4;;;;/h;(H3,1,2,3,4);4*1H2/q+3;;;;/p-3
Inchi Key	BVZHAJJRIRDSTG-UHFFFAOYSA-K
Signal Word	Warning
Hazard Statements	H302-H315-H319-H335
Hazard Codes	Xi
Precautionary Statements	P261-P280-P305+P351+P338-P304+P340-P362-P301+P312-P312-P405-P403+P233-P501a
Risk Codes	34
Safety Statements	N/A
RTECS Number	N/A
Transport Information	NONH for all modes of transport
WGK Germany	3
GHS Pictograms	<a href="#">GHS07 Exclamation Point</a> 

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## SAFETY DATA SHEET

Date Accessed: 05/28/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #10101-59-4

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 4

Skin Corrosion/irritation Category 2

Serious Eye Damage/Eye Irritation Category 2

Specific target organ toxicity (single exposure)

Category 3

Target Organs - Respiratory system.

Label Elements



### Signal Word

Warning

### Hazard Statements

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

### Precautionary Statements

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

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

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell

#### Skin

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

#### Eyes

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

#### Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Storage

Store in a well-ventilated place. Keep container tightly closed  
Store locked up  
Disposal  
Dispose of contents/container to an approved waste disposal plant

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component  
Chromium(III) phosphate tetrahydrate  
CAS-No  
10101-59-4

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### **SECTION 4. FIRST AID MEASURES**

General Advice If symptoms persist, call a physician.  
Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects

None reasonably foreseeable.

Notes to Physician Treat symptomatically

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### **SECTION 5. FIREFIGHTING MEASURES**

Suitable Extinguishing Media Not combustible.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.  
Hazardous Combustion Products  
Oxides of phosphorus Chromium oxides  
Protective Equipment and Precautions for Firefighters  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.  
Environmental Precautions Should not be released into the environment. See Section 12 for additional ecological information. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.  
Methods for Containment and Clean Up  
Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

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## **SECTION 7. HANDLING AND STORAGE**

Handling Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.  
Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.  
Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location.  
Personal Protective Equipment  
Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.  
Skin and body protection Long sleeved clothing.

Respiratory Protection 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 if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State Solid

Appearance No information available

Odor No information available

Odor Threshold No information available

pH No information available

Melting Point/Range No data available

Boiling Point/Range No information available

Flash Point No information available

Evaporation Rate Not applicable

Flammability (solid,gas) No information available

Flammability or explosive limits

Upper No data available

Lower No data available

Vapor Pressure No information available

Vapor Density Not applicable

Specific Gravity 2.26 g/cm<sup>3</sup>

Solubility No information available

Partition coefficient; n-octanol/water No data available

Autoignition Temperature No information available

Decomposition Temperature No information available

Viscosity Not applicable

Molecular Formula CrPO<sub>4</sub>·4H<sub>2</sub>O

Molecular Weight 219.04 (146.97anhy)

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Oxidizing agents

Hazardous Decomposition Products Oxides of phosphorus, Chromium oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Acute Toxicity

Product Information

Component Information

Toxicologically Synergistic Products

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

IARC

Not listed

NTP

Not listed

ACGIH

Not listed

OSHA

Not listed

Mexico

Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed

No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity

May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Persistence and Degradability Insoluble in water May persist

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT Not regulated  
TDG Not regulated  
IATA Not regulated  
IMDG/IMO Not regulated

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## **SECTION 15. REGULATORY INFORMATION**

National regulations  
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.  
All components of this product are listed on the Canadian Domestic Substances List (DSL).  
SARA Section 313 (specific toxic chemical listings)  
Substance is not listed.  
California Proposition 65  
Prop 65 - Chemicals known to cause cancer  
Substance is not listed.  
Prop 65 - Developmental toxicity  
Substance is not listed.  
Prop 65 - Developmental toxicity, female  
Substance is not listed.  
Prop 65 - Developmental toxicity, male  
Substance is not listed.  
Information about limitation of use:  
For use only by technically qualified individuals.  
Other regulations, limitations and prohibitive regulations  
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.  
Substance is not listed.  
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.  
Substance is not listed.  
Annex XIV of the REACH Regulations (requiring

Authorisation for use)  
Substance is not listed.  
Chemical safety assessment:  
A Chemical Safety Assessment has not been carried out.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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