

[Calcium Pyrophosphate](#)

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Linear Formula	Ca ₂ P ₂ O ₇
Pubchem CID	24456
MDL Number	MFCD00015983
EC No.	232-221-5
IUPAC Name	dicalcium; phosphonato phosphate
Beilstein/Reaxys No.	N/A
SMILES	[Ca+2].[Ca+2].[O-]P([O-])(=O)OP([O-])([O-])=O
InChI Identifier	InChI=1S/2Ca.H4O7P2/c;;1-8(2,3)7-9(4,5)6/h;;(H2,1,2,3)(H2,4,5,6)/q2*+2;/p-4
InChI Key	JUNWLZAGQLJVLRL-UHFFFAOYSA-J

Signal Word Warning

Hazard Statements H315-H319-H335

Hazard Codes Xi

Risk Codes 36/37/38

Safety Statements 26-36

RTECS Number N/A

Transport Information N/A

WGK Germany 3

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SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #7790-76-3

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

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No data available GHS label elements GHS label elements, including precautionary statements Hazard pictograms



GHS07 Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1 Flammability = 0 Physical Hazard = 1 Other hazards Results of PBT and vPvB assessment PBT: N/A vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances CAS No. / Substance Name: 7790-76-3 Calcium phosphate (pyro) Identification number(s): EC number: 232-221-5

SECTION 4. FIRST AID MEASURES

Description of first aid measures If inhaled: Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm. Seek immediate medical advice. In case of skin contact: Immediately wash with soap and water; rinse thoroughly. Seek immediate medical advice. In case of eye contact: Rinse opened eye for several minutes under running water. Consult a physician. If swallowed: Seek medical treatment. Information for doctor Most

important symptoms and effects, both acute and delayed No data available Indication of any immediate medical attention and special treatment needed No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media Suitable extinguishing agents Product is not flammable. Use fire-fighting measures that suit the surrounding fire. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Calcium oxide Phosphorus oxides Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow product to enter drains, sewage systems, or other water courses. Methods and materials for containment and cleanup: Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Information about protection against explosions and fires: The product is not flammable Conditions for safe storage, including any incompatibilities Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well-sealed containers. Specific end use(s) No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Control parameters Components with limit values that require monitoring at the workplace: None. Additional information: No data Exposure controls Personal protective equipment Follow typical protective and hygienic practices for handling chemicals. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Inspect gloves prior to use. Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer. Penetration time of glove material (in minutes) No data available Eye protection: Safety glasses Body protection: Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties Appearance: Form: Powder Color: White Odor: Odorless Odor threshold: No data available. pH: N/A Melting point/Melting range: 1230 °C (2246 °F) Boiling point/Boiling range: No data available Sublimation temperature / start: No data available Flammability (solid, gas) No data available. Ignition temperature: No data available Decomposition temperature: No data available Autoignition: No data available. Danger of explosion: No data available. Explosion limits: Lower: No data available Upper: No data available Vapor pressure: N/A Density at 20 °C (68 °F): 3.09 g/cm³ (25.786 lbs/gal) Relative density No data available. Vapor density N/A Evaporation rate N/A Solubility in Water (H₂O): Insoluble Partition coefficient (n-octanol/water): No data available. Viscosity: Dynamic: N/A Kinematic: N/A Other information No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity No data available Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions Reacts with strong oxidizing agents
Conditions to avoid No data available Incompatible materials: Oxidizing agents Hazardous decomposition products: Calcium oxide Phosphorus oxides (e.g. P₂O₅)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects Acute toxicity: No effects known. LD/LC₅₀ values that are relevant for classification: No data Skin irritation or corrosion: Causes skin irritation. Eye irritation or corrosion: Causes serious eye irritation. Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation. Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity Aquatic toxicity: No data available Persistence and degradability No data available Bioaccumulative potential No data available Mobility in soil No data available Additional ecological information: Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: N/A vPvB: N/A Other adverse effects No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods Recommendation Consult official regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number DOT, ADN, IMDG, IATA N/A UN proper shipping name DOT, ADN, IMDG, IATA N/A Transport

hazard class(es) DOT, ADR, ADN, IMDG, IATA Class
N/A Packing group DOT, IMDG, IATA N/A
Environmental hazards: N/A Special precautions for
user N/A Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code N/A
Transport/Additional information: DOT Marine
Pollutant (DOT): No

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental
regulations/legislation specific for the substance or
mixture GHS GHS label elements, including
precautionary statements Hazard pictograms GHS07
Signal word Warning Hazard statements H315
Causes skin irritation. H319 Causes serious eye
irritation. H335 May cause respiratory irritation.
Precautionary statements P261 Avoid breathing
dust/fume/gas/mist/vapors/spray. P280 Wear
protective gloves/protective clothing/eye
protection/face protection. P305+P351+P338 IF IN
EYES: Rinse cautiously with water for several
minutes. Remove contact lenses, if present and easy
to do. Continue rinsing. P304+P340 IF INHALED:
Remove person to fresh air and keep comfortable for
breathing. P405 Store locked up. P501 Dispose of
contents/container in accordance with
local/regional/national/international regulations.
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.

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.
