

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Sodium Zirconium Silicophosphate

Chemical Formula: $\text{Na}_3\text{Zr}_2\text{Si}_2\text{PO}_{12}$

Manufacturer Item Number: SO-4820

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Warning

Pictograms:



Hazard Statements:

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.

Precautionary Statements:

- P261 Avoid breathing dust / fumes / gas / mist / vapors / spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink, or smoke, when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P271 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves / eye protection / face protection.
- P301+312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
- P302+352 IF ON SKIN: Wash with plenty of soap and water.
- P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see supplemental first aid instruction on this label).
- P332+313 If skin irritation occurs: Get medical advice / attention.
- P337+313 If eye irritation persists: Get medical advice / attention.
- P362 Take off contaminated clothing and wash before reuse.
- P403+233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents / container in accordance with local / regional / national / international regulation.

HMIS Health Ratings (0-4)

- Health:	2
- Flammability:	0
- Physical:	0

3. COMPOSITION

Additional Names:	Sodium Zirconium Phosphate Silicate; Sodium Zirconium Phosphosilicate
Percentage:	100 wt%
CAS #:	58572-20-6
EC #:	No Data Available.

4. FIRST AID PROCEDURES

General Treatment	Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.
Special Treatment:	No Data Available.
Important Symptoms:	No Data Available.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin:	Wash off with soap and plenty of water. Consult a physician.
Eyes:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

5. FIREFIGHTING MEASURES

Flammability:	Not Flammable.
Special Hazards from Substance:	Oxides of phosphorus, Sodium Oxide, Zirconium Oxide, Silicon Oxides
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Ensure adequate ventilation. Wear personal protective equipment and keep unprotected persons away. Sweep up or vacuum up spillage and collect in a suitable container for disposal. Dispose of waste in accordance with applicable federal, state, local, and provincial environmental regulations.
Environmental Precautions:	Prevent further leakage or spills if safe to do so. Do not allow to enter drain, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place.

Work / Hygienic Maintenance: Follow personal protection guidelines in Section 8.

Ventilation: Keep in a well-ventilated place.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	OSHA	PEL	5.0 mg/m ³	Zirconium Compounds (as Zr) - USA Occupational Exposure Limit (air contaminant) (Table Z-1)
	California	PEL	5.0 mg/m ³	Zirconium Compounds (as Zr) (8-hour total weighted average) — California permissible exposure limit for chemical contaminants (Title 8, Article 107)
	California	PEL	10.0 mg/m ³	Zirconium Compounds (as Zr) (ceiling) — California permissible exposure limit for chemical contaminants (Title 8, Article 107)
	OSHA	PEL	5.0 mg/m ³	Zirconium Compounds (as Zr) - USA Occupational Exposure Limit (air contaminant) (Table Z-1)

Threshold Limit Value:	Authority	Basis	Limit	Remarks
	NIOSH	REL	5.0 mg/m ³	Zirconium Compounds (as Zr) (up to 10-hour total weighted average)
	NIOSH	REL	10.0 mg/m ³	Zirconium Compounds (as Zr) (ceiling)
	ACGIH	TLV	5.0 mg/m ³	Zirconium Compounds (as Zr) (up to 8-hour total weighted average)
	ACGIH	TLV	10.0 mg/m ³	Zirconium Compounds (as Zr) (ceiling)

Special Equipment: No Data Available.

Respiratory Protection: For nuisance exposure use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or GEN (EU).

Protective Gloves: 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: Safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Body Protection: Wear appropriate protective clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	White	Molecular Weight:	530.55 g/mol
Forms:	Powder	Density:	No Data Available.
Odor:	No Data Available.	pH:	No Data Available.
Water Solubility:	No Data Available.	Auto-Ignition Temperature:	No Data Available.
Boiling Point:	No Data Available.	Evaporation Rate:	No Data Available.

Melting Point / Freezing Point:	No Data Available.	Flammability or Explosive Limits:	No Data Available.
Vapor Pressure:	No Data Available.	Partition Coefficient: n-octanol/ water	No Data Available.
Vapor Density:	No Data Available.	Decomposition Temperature:	No Data Available.
Flash Point:	No Data Available.	Viscosity:	No Data Available.

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Strong Oxidizing Agents, Strong Acids
Incompatible Conditions:	No Data Available.
Hazardous Decomposition Products:	Oxides of phosphorus, Sodium Oxide, Zirconium Oxide, Silicon Oxides

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:	<p>Eyes: May cause eye irritation.</p> <p>Skin: May cause skin irritation. May be harmful if absorbed through the skin.</p> <p>Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.</p> <p>Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.</p> <p>Chronic: No Data Available.</p>
Signs and Symptoms:	Zirconium compounds may cause eye irritation, lacrimation, blurred vision, and conjunctivitis.
Aggravate Medical Conditions:	No Data Available.
Median Lethal Dose:	No Data Available.
Carcinogen:	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.</p> <p>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.</p> <p>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.</p> <p>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.</p>

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	No Data Available.
Persistence and degradability:	No Data Available.
Bioaccumulative potential:	No Data Available.
Notes:	No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Empty containers should be taken to an appropriate waste handling site for recycling or disposal. Dispose of in accordance with local, state, or national regulations.

14. TRANSPORTATION DATA

Hazardous: **DoT:** Not Dangerous Goods.
IMDG: Not Dangerous Goods.
IATA: Not Dangerous Goods.

Pictogram: N/A

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

Proper Shipping Name: **DoT:** N/A
IMDG: N/A
IATA: N/A

15. REGULATORY INFORMATION

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

SARA 313 Components 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 No components are subject to the Ma. Right to Know Act.

Pennsylvania Right to Know Components Sodium Zirconium Silicophosphate (CAS No. 58572-20-6).

New Jersey Right to Know Components Sodium Zirconium Silicophosphate (CAS No. 58572-20-6).

California Prop. 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Copyright 2018 Lorad Chemical Corporation. 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 does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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