

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Calcium Sulfide

Chemical Formula: CaS

Manufacturer Item Number: CA-1200

Manufacturer: Lorad Chemical Corporation
1200 19th Street North
Saint Petersburg, Florida, 33713
United States of America

Telephone: +1 (727) 826-5511

Fax: +1 (727) 826-5510

Emergency Contact: (800) 255-3924 (US & Canada)
+1 (813) 248-0573 (International)

2. HAZARD IDENTIFICATION

Signal Word: Warning

Pictograms:



Hazard Statements: H315 Causes skin irritation.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or physician if you feel unwell.
P321 Specific treatment (see supplemental first aid instructions)
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.
P391 Collect spillage.
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents / containers to an approved waste disposal plant.

HMIS Health Ratings (0-4)

- Health: 1
- Flammability: 1
- Physical: 1

3. COMPOSITION

Additional Names:	Calcium Sulphide
Percentage:	100 wt%
CAS #:	20548-54-3
EC #:	243-873-5

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 breathing, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin:	Wash skin off with plenty of soap and water. Remove contaminated clothing if necessary. If irritation persists, seek medical attention.
Eyes:	Immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Consult a physician.

5. FIREFIGHTING MEASURES

Special Hazards from Substance:	Sulphur oxides, Calcium oxide
Extinguishing Media:	Dry powder
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe area. Sweep up or vacuum up spillage and collect in suitable closed container for disposal. Dispose of waste in accordance with applicable federal, state, local, and provincial environmental regulations. Do not flush with water.
Environmental Precautions:	Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses. Discharge into the environment must be avoided.

7. HANDLING AND STORAGE

Handling Conditions:	Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.
Storage Conditions:	Store in a tightly closed container in a dry, well ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Air sensitive, moisture sensitive, heat sensitive. Protect against electrostatic charges.
Work / Hygienic Maintenance:	Do not eat, drink, or smoke when working with this product. Wear protective gloves and wash skin thoroughly after handling. Keep formation of airborne dusts to a minimum. Guard against dust accumulation. Wear suitable respiratory equipment. Sensitive to air, moisture, and heat.

Ventilation: Keep in well ventilated area.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	-	-	-	Contains no substances with occupational exposure limits.
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	-	-	-	Contains no substances with occupational exposure limits.
Special Equipment:	Handle in accordance with good industrial hygiene and safety practice. Use proper lab equipment while handling this product. Keep way from incompatible materials for possible risk of hazardous reaction.			
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).			
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 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:	72.14 g/mol
Forms:	Powder	Density:	2.59 g/cm ³
Odor:	Rotten Eggs	pH:	No Data Available.
Water Solubility:	Hydrolyses	Auto-Ignition Temperature:	No Data Available.
Boiling Point:	No Data Available.	Evaporation Rate:	No Data Available.
Melting Point / Freezing Point:	> 2,525°C (> 4,577°F)	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, Lead
Incompatible Conditions:	Moisture, extreme temperatures

Hazardous Decomposition Products: Hydrogen sulfide, Sulfur oxides, Calcium oxide

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

- Eyes: Causes serious eye irritation including redness, blurred vision, and provoked tears.
- Skin: Causes skin irritation.
- Ingestion: May cause stomach / intestinal disorders, nausea, vomiting, ataxia, hyperactivity, or incoordination.
- Inhalation: May cause ataxia, hyperactivity, or incoordination.
- Chronic: Prolonged or repeated contact with skin may cause defatting, dermatitis.

Signs and Symptoms: Sulfides show variable toxicity. The alkaline sulfides are similar in action to alkalies. They cause irritation of the skin and are corrosive by ingestion. The heavy metal sulfides are generally insoluble and show little toxic action except through the liberation of hydrogen sulfide. Hydrogen sulfide, if generated, is toxic, a severe irritant and flammable. Effects include conjunctivitis, headache, nausea, dizziness, coughing, pulmonary edema, and possibly death.

Aggravate Medical Conditions: No Data Available.

Median Lethal Dose: No Data Available.

Carcinogen:

- 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.
- 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.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Very toxic to aquatic life.

Persistence and degradability: No Data Available.

Bioaccumulative potential: No Data Available.

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

13. DISPOSAL CONSIDERATIONS

Disposal: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORTATION DATA

Hazardous:

- DoT:** Hazardous for Transportation
- IMDG:** Hazardous for Transportation
- IATA:** Hazardous for Transportation

Pictogram:



Hazard Class: 6.1 Toxic

Packing Group: I

UN Number: UN3288

Proper Shipping Name: **DoT:** Toxic solid, inorganic, n.o.s. (Calcium Sulfide)
 Marine Pollutant: No
 Poison Inhalation Hazard: No

IMDG: TOXIC SOLID, INORGANIC, N.O.S. (Calcium Sulfide)
 EMS-No: F-A, S-G
 Marine Pollutant: No

IATA: TOXIC SOLID, INORGANIC, N.O.S. (Calcium Sulfide)

15. REGULATORY INFORMATION

SARA 302 Components	No chemical 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 minimus) 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	Calcium Sulfide (CAS No. 20548-54-3)
New Jersey Right to Know Components	Calcium Sulfide (CAS No. 20548-54-3)
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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