

REMOTOX®

Product Properties, Safety and Handling Guidelines

Discussion Items

- Product Overview
- Health Hazards
- Exposure Control
- First Aid
- Handling
- Materials of Construction
- Storage
- Transfers
- Accidental Releases
- Disposal Considerations

Product Overview

REMOTOX is a Calcium Polysulfide aqueous solution, which is formed when calcium hydroxide and elemental sulfur react in water.

Typical Physical Properties	
Assay (CaSx % by wt.)	29
Specific Gravity (g/cc)	1.27
Specific Gravity (lbs/gal)	10.60
pH	11.5
Appearance	Red-yellow liquid
Odor	Moderate sulfide (rotten egg)

Health Hazards

- **Skin:**
 - Prolonged or repeated skin contact with product causes skin irritation.
- **Eyes:**
 - Eye contact with product causes serious eye damage.
- **Ingestion:**
 - Harmful if swallowed. Ingestion of product will cause irritation and corrosion of the gastrointestinal tract. Contact with stomach acid will cause toxic hydrogen sulfide to evolve.
- **Inhalation:**
 - Inhalation of product vapors are predominantly water vapor. With minimal amounts of hydrogen sulfide.

Exposure Control



Wear chemical goggles or safety glasses with side-shields. For severe exposure, use full face shield.



Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the product.



Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly after handling.



Have self-contained breathing apparatus available in case of insufficient ventilation to prevent exposure to hydrogen sulfide vapors.

First Aid

- **Skin:**

- Wash skin with soap and water. Take off contaminated clothing. Seek medical attention if irritation occurs.

- **Eyes:**

- Do not rub eyes. Immediately flush eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do
 - continue rinsing. Seek medical treatment if irritation occurs.

- **Ingestion:**

- If swallowed, drink a large quantity of milk, egg whites, or gelatin solution, or if these are not available, large quantities of water. Do not induce vomiting. Seek medical treatment.

- **Inhalation:**

- Remove person to fresh air and keep at rest. If breathing is labored, provide emergency oxygen. Seek medical treatment if symptoms develop or persist.

Handling

- Use the product in a well-ventilated area.
- Avoid skin and eye contact.
- Wear suitable protective equipment and clothing.
- Minimize exposure to excessive heat.
- Do not mix with acids and strong oxidizers. Doing so results in the formation of hydrogen sulfide vapors.

Materials of Construction

- **Storage Tanks:**
 - Stainless steel, fiberglass, polypropylene, HD polyethylene and lined carbon steel.
- **Valves:**
 - Stainless steel (304/316) valves utilizing Teflon seats or seals.
- **Piping:**
 - Stainless steel or PVC preferred for all applications. Welded and flanged connections are preferred over threaded connections. Schedule 40 piping is typically used for continuous service. Garlock, EPDM, Teflon or Flexitallic gaskets are recommended for flanged fittings.

Please request our Materials of Construction Compatibility Chart for more details.

Storage

- **Vessel:**

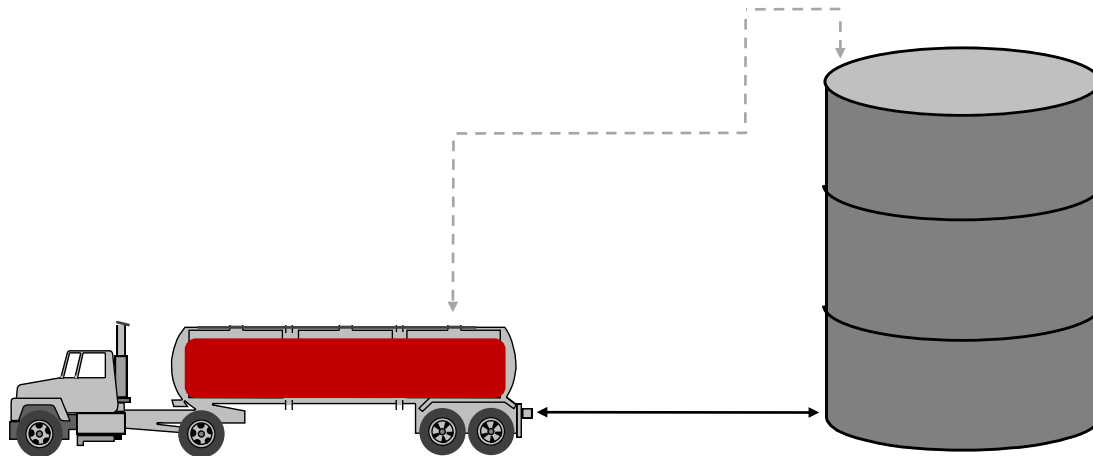
- Locate in open, well ventilated areas.
- Flexible venting (open, closed, or pressurized).
- Keep away from incompatibles (acids or strong oxidizers).
- In low temperature environments (less than 32°F), consider insulating/heat-tracing the vessel.

- **Small Containers:**

- Store in well ventilated area and out of direct sunlight at moderate temperature; small unvented containers can develop high pressures if left exposed to direct sunlight for extended periods.
- Keep away from incompatibles (acids or strong oxidizers).
- Keep containers tightly closed to extend storage life.

Transfers

- Carefully inspect all connections (incl. hoses) which use seals, gaskets or packing to make certain they are in good condition and correctly positioned prior to transfer.
- For high volume transfer or unloading points, a vapor return system is advisable to prevent releasing any vapors to the atmosphere.



Accidental Release

- **Small Releases:**

- Confine and absorb spillages onto sand, earth or any suitable adsorbent material (i.e., cloth, fleece). Clean surface thoroughly to remove residual contamination. Recover the product and place in a suitable container for reuse. Work in well ventilated area.

- **Large Releases:**

- Confine area to qualified personnel. Stop the flow of material, if this is without risk. Dike the spilled material where this is possible. Use a non-combustible material, like sand or earth to soak up the product and place into a container for later disposal. Neutralization/oxidation of residual sulfides can be accomplished by monitored addition of dilute bleach or peroxide. Work in well ventilated area.

Disposal Considerations

- When product is not appropriate for further use, it should be checked for reactive sulfides prior to disposal. Residual reactive sulfides can be oxidized with using a weak (3-5%) peroxide. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

For additional information contact:

GRAUS CHEMICALS, LLC
P.O. Box 768
Carefree, Arizona 85377

Phone: 623.328.5175

Fax: 623.398.8945

info@grauschemicals.com

The information compiled in this handbook is believed to be accurate and is given in good faith, but it is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. No warranty or guarantee, expressed or implied, is made regarding performance, stability or otherwise, of this product, as the manner and conditions of use, handling, storage and other factors may involve other additional safety or performance considerations. No suggestions of use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate federal, state or local laws.