SAFETY DATA SHEET

1. Identification

| Product identifier | CRYSTAL SALT REMOVER | |
|--|---|--|
| Other means of identification | | |
| Product code | CSR-10 | |
| Recommended use | Cleaner. | |
| Recommended restrictions | None known. | |
| Manufacturer/Importer/Supplier/Distributor information | | |
| Manufacturer/Supplier | R.E.Whittaker Co. 302 South Croton Avenue New Castle, PA. 16101 USA | |
| Telephone | (724) 658-8568 | |
| Emergency telephone number | (800) 535-5053 | |

2. Hazard(s) identification

| Physical hazards | Not classified. | |
|----------------------|---------------------|------------|
| Health hazards | Sensitization, skin | Category 1 |
| OSHA defined hazards | Not classified. | |
| Label elements | | |



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| Warning |
| May cause an allergic skin reaction. |
| |
| Avoid breathing mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. |
| If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. |
| Store away from incompatible materials. |
| Dispose of contents/container in accordance with local/regional/national/international regulations. |
| None known. |
| |

3. Composition/information on ingredients

Mixtures

| Chemical name | CAS number | % |
|---|------------|--------|
| Citric acid | 77-92-9 | < 5 |
| 1-(3-chloroallyl)-3,5,7-triaza-1- azoniaadamantane chloride | 4080-31-3 | < 1 |
| Other components non hazardous or below disclosure limits | N/A | to 100 |

4. First-aid measures

Inhalation

Skin contact

Move to fresh air. Call a physician if symptoms develop or persist. Wash off with soap and water. Get medical attention if irritation develops and persists.

| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
|--|--|
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| 5. Fire-fighting measures | |
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |

and precautions for firefightersFire-fighting
equipment/instructionsUse standard firefighting procedures and consider the hazards of other involved materials. Move
containers from fire area if you can do so without risk.General fire hazardsNo unusual fire or explosion hazards noted.

6. Accidental release measures

| Personal precautions, protective equipment and emergency procedures | For industrial use, wear appropriate personal protective equipment (See Section 8). Wear protective gloves. |
|---|--|
| Methods and materials for containment and cleaning up | Absorb spill with vermiculite or other inert material, then place in a container for chemical waste for proper disposal. |
| | Large Spills: Dike for later disposal. Flush area with water. Prevent runoff from entering drains, sewers, or streams. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

7. Handling and storage

| Precautions for safe handling | Avoid contact with eyes. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Keep from freezing. If frozen, allow to thaw to room temperature. Mix before using. |
|---|---|
| Conditions for safe storage, including any incompatibilities | Store in original tightly closed container. Store in upright position. Store away from incompatible materials (see Section 10 of the SDS). |

8. Exposure controls/personal protection

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|-------------------------------------|---|
| Occupational exposure limits | No exposure limits noted for ingredient(s). |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | Ensure adequate ventilation, especially in confined areas. |
| Individual protection measures | , such as personal protective equipment |
| Eye/face protection | Wear safety glasses with side shields (or goggles). |
| Skin protection | |
| Hand protection | Chemical resistant gloves are recommended. |
| Other | Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information. |
| Respiratory protection | Not normally needed. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information. |
| Thermal hazards | Not applicable. |

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

| Appearance | |
|--|---|
| Physical state | Liquid. |
| Form | Clear liquid. |
| Color | Light yellow. |
| Odor | Odorless. |
| Odor threshold | Not applicable. |
| рН | 2 |
| Melting point/freezing point | Not determined. |
| Initial boiling point and boiling range | Not determined. |
| Flash point | > 200.0 °F (> 93.3 °C) |
| Evaporation rate | < 1 (n-BuAc=1) |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or exp | losive limits |
| Flammability limit - lower (%) | Not applicable. |
| Flammability limit - upper (%) | Not applicable. |
| Vapor pressure | Not determined. |
| Vapor density | Heavier than air. |
| Relative density | 1.02 |
| Solubility(ies) | |
| Solubility (water) | Complete. |
| Partition coefficient (n-octanol/water) | Not determined. |
| Auto-ignition temperature | Not applicable. |
| Decomposition temperature | Not determined. |
| Viscosity | Not determined. |
| Other information | |
| Density | 8.50 lb/gal |
| 10. Stability and reactivity | |
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. Keep from freezing. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No hazardous decomposition products are known. |
| 11. Toxicological informat | |
| Information on likely routes of e | |
| Ingestion | Ingestion may cause irritation and malaise. |
| Inhalation | High mist concentrations may cause irritation of respiratory tract. |
| Skin contact | May cause sensitization by skin contact. |

Eye contact Direct contact with eyes may cause temporary irritation.

Symptoms related to the Symptoms may include stinging, tearing, redness, swelling, and blurred vision. **physical, chemical and**

toxicological characteristics

| toxicological characteristics | |
|--|--|
| Information on toxicological eff | ects |
| Acute toxicity | Expected to be a low hazard for usual industrial or commercial handling by trained personnel. |
| Skin corrosion/irritation | Prolonged or repeated contact may dry skin and cause irritation. |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. |
| Respiratory or skin sensitizatio | n |
| Respiratory sensitization | No data available. |
| Skin sensitization | May cause an allergic skin reaction. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Based on available data, the classification criteria are not met. |
| Specific target organ toxicity - repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Not classified. |
| Chronic effects | Prolonged exposure may cause chronic effects. |

12. Ecological information

| Ecotoxicity | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |
|-------------------------------|--|
| Persistence and degradability | No data is available on the degradability of this product. |
| Bioaccumulative potential | No data available. |
| Mobility in soil | No data available. |
| Other adverse effects | None known. |

13. Disposal considerations

| Disposal instructions | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|--|--|
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Dispose in accordance with all applicable regulations. |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

14. Transport information

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to This product is not intended to be transported in bulk. Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. CERCLA Hazardous Substance List (40 CFR 302.4) Not listed. Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No SARA 302 Extremely hazardous substance Not listed. SARA 311/312 Hazardous Yes chemical SARA 313 (TRI reporting) Not regulated. Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated. Safe Drinking Water Act Not regulated. (SDWA) US state regulations **US. Massachusetts RTK - Substance List** Not regulated. US. New Jersey Worker and Community Right-to-Know Act Not listed. US. Pennsylvania Worker and Community Right-to-Know Law Not listed. **US. Rhode Island RTK** Not regulated. US. California Proposition 65 This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance Not listed. International Inventories Country(s) or region Inventory name United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory *A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s). 16. Other information, including date of preparation or last revision 28-May-2014 Issue date **Revision date** Version # 01

On inventory (yes/no)*

Yes



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.