



Safety Data Sheet

Report Date 16-Apr-15

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1. Identification

Product Name : RE-DUCE
Synonyms : None
Product Use : Water Conditioning Agent and Nonionic Surfactant
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Causes mild skin irritation
Eye Irritation : Causes serious eye irritation - irritation, redness, pain.
Acute Toxicity Oral : May be harmful if swallowed. Gastrointestinal upset may occur; symptoms of stomach pain, diarrhea.
Acute Toxicity Dermal : No hazard anticipated but may be harmful in contact with skin
Hazard Categories : Oral/Dermal/Inhalation Toxicity - 5/5/5; Eye Irritation - 2A; Skin Irritation - 3
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes serious eye irritation
Causes mild skin irritation
May be harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Ammonium Sulfate, Alkyl Polyglycoside, 2-Hydroxy-1,2,3-propanetricarboxylic acid	Proprietary	45.0
Components ineffective as spray adjuvants	Proprietary	55.0

4. First Aid Measures

Eye : Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. Call a poison control center or doctor for treatment advice.

Skin : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation : Move person to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Ingestion : Call a poison control center or doctor immediately for treatment advice. Sip a glass of water, if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically.



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5. Fire Fighting Measures

- Extinguishing Media** : Non-combustible liquid. Use extinguishing media suitable for underlying cause of fire.
- Specific Hazards Arising from the Chemical** : May emit toxic fumes under fire conditions.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area. Wear appropriate protective equipment to avoid contact with skin, eyes or clothing.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Use NIOSH-approved respirator for ammonia gas under fire conditions. Eyewash should be available in work area.
- Emergency Procedures** : Prevent entry of spilled product into sewers or waterways.
- Methods and Materials for Containment and Cleanup** : Contain spill. If uncontaminated, collect and reuse as intended. If contaminated, cover with an inert absorbent, collect and place in suitable containers for proper disposal.

7. Handling and Storage

- Precautions for Safe Handling** : Keep out of reach of children. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not contaminate water sources by runoff from cleaning of equipment, disposal of equipment wash waters, or spray waste.
- Conditions for Safe Storage** : Store in original container only. Do not store near heat or open flame.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Not established for mixture.
- Appropriate Engineering Controls** : General and/or local exhaust should be sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Use NIOSH-approved respirator for ammonia gas under fire conditions. Eyewash should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Clear colorless to dark amber liquid
- Flash Point, °F** : Non-combustible
- Boiling Point, °F** : Not determined
- Melting Point(Freezing point), °C** : Not applicable
- Vapor Pressure, mm Hg @ 20 °C** : Not determined
- Vapor Density** : Not determined
- Solubility in Water** : Soluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.204-1.244
- Evaporation Rate(Butyl Acetate = 1)** : Not determined
- Octanol/Water Partition Coefficient** : Not determined



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pH : 2.8-3.5
Flammable Limits (approximate volume % in air) : Not determined
Auto-ignition Temperature : Not determined
Decomposition temperature : Not determined

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition Products : May produce ammonia gas, oxides of carbon, and oxides of sulfur under fire conditions.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Avoid strong acids and oxidizing agents.
Incompatible Materials : Strong acids and oxidizing agents.

11. Toxicological Information

Acute Toxicity (Oral LD50) : No data available. May be harmful if swallowed. Gastrointestinal upset may occur if ingested.
Acute Toxicity (Dermal LD50) : No data available. May be harmful in contact with skin. No hazard anticipated.
Acute Toxicity Inhalation LC50 : No data available. May be harmful if inhaled. May be mildly irritating to the nose and throat.
Likely Routes of Exposure : Skin and eyes.
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes serious eye irritation.
Skin Sensitization : No information found
Carcinogenic : Not listed by IARC, NTP or OSHA.
Chronic Effects : No information available
Other Hazards : None currently known.

12. Ecological Information

Ecotoxicity : No information found
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : No information found
Other Adverse Effects : No information found

13. Disposal Considerations

Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Not regulated by DOT, IATA or IMDG.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : No information found



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Transport in Bulk : No information found
Special Precautions for Transportation : No information found
Freight Classification : Adhesives, Adjuvants, Spreaders or Stickers, N.O.I. (NMFC Item 42652, Class 60)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 16-April-2015