

MATERIAL SAFETY DATA SHEET

Issued: 20 October 2009

Supercedes: 17 August 2007

SECTION I - Chemical Product and Company Identification

Product Name: **REASHURE®**
Rumen Stable Encapsulated Choline

Manufacturer's Name: BALCHEM CORPORATION
52 Sunrise Park Road
PO Box 600
New Hampton, NY 10958

Information Telephone: (845) 326-5600
Emergency Telephone: (800) 424-9300 (CHEMTREC - within US & Canada)
Emergency Telephone: (703) 527-3887 (CHEMTREC - outside continental US)

SECTION II - Composition/Information on Ingredients

Name	CAS #	Exposure Limits
Choline Chloride	67-68-1	15 mg/m ³ total & 5 mg/m ³ respirable fraction (OSHA 8-hr TWA PEL for nuisance dust) 10 mg/m ³ inhalable particulate (ACGIH 8-hr TWA TLV)
Food-grade Lipids		

SECTION III - Hazards Identification

Signs and Symptoms of Overexposure:

- Skin Contact:** In rare cases, glycerides may cause allergic reaction upon prolonged or repeated contact. Occupational exposure to glycerides is associated with skin irritation. Product may cause mechanical irritation.
- Eye Contact:** Glycerides may cause minor irritation, vision interference and tearing. Product may also cause mechanical irritation and drying.
- Ingestion:** Glycerides may cause gastrointestinal disturbances including irritation, nausea, vomiting and diarrhea.
- Inhalation:** Glycerides may cause irritation of upper respiratory system, coughing. Breathing large amounts of dust may cause injury. Chronic exposure to dust may result in delayed lung injury.
- Explosion:** Warning! May form combustible dust concentrations in air (during processing)

SECTION IV - First Aid Measures

Emergency and First Aid Procedures

Eye Contact: Immediately flush with large amounts of water for at least 15 minutes. Get medical attention.

Skin Contact: Wash skin thoroughly. Remove clothing and launder before reuse.

Inhalation: Move individual to fresh air. Get medical attention if symptoms persist.

Ingestion: Get medical attention.

SECTION V - Fire Fighting Measures

Flash Point:	Glycerides have a flash point > 100 °C (212 °F).
Flammable Limits:	Vegetable oil fire point > 675 °F
Autoignition Temperature:	Not available
Extinguishing Media:	Water, foam, carbon dioxide, dry powder
Special Fire Fighting Procedures:	Treat as burning fat and do not use water jet.
Unusual Fire & Explosion Hazards:	Toxic gases may form similar to normal combustible materials. Rags and other materials containing vegetable oil could potentially heat and spontaneously ignite if exposed to air. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Explosion hazard results for vegetable oils indicate a P_{max} of 7.6 bar(g) and K_{St} value of 167 bar m/sec classifying it as ST 1 class dust. This material may present an explosion and deflagration hazard risk when dispersed and ignited in air. Secondary explosions may also pose a risk once an initial explosion occurs with the presence of a combustible dust or powder in the area.

SECTION VI - Accidental Release Measures

If material is spilled, carefully sweep into containers for disposal. Wear appropriate personal protective equipment.
CAUTION: Spilled material may cause floors to be slippery. Flush area with water to remove any trace material. Dispose according to Federal, State and Local regulations.
Dust should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Avoid dispersal of dust in the air (e.g., avoid clearing dust surfaces with compressed air).

SECTION VII - Handling and Storage

Keep containers tightly closed. Product is hygroscopic. Store in a cool, dry, well ventilated area. Handle with care and avoid all possible sources of contamination.
Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precaution, such as electrical grounding and bonding, or inert atmospheres.

SECTION VIII - Exposure Controls/Personal Protection

Provide adequate ventilation to minimize dust buildup. When dust may be present, use a respirator approved for protection by National Institute for Occupational Safety and Health (NIOSH) against nuisance dust. Protect against skin exposure by wearing appropriate clothing and gloves. Wear safety glasses. Contact lenses should not be worn when working with this product.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Use only appropriately classified electrical equipment and powered industrial trucks.

SECTION IX - Physical and Chemical Properties

Appearance and Odor: Light brown, free-flowing granules with slight grain odor.
Melting Point: Lipids: 57 – 71 °C (135 – 160 °F)
Solubility in Water: Partially soluble
pH: Datum not available
Boiling Point: Lipids: > 250 °C (482 °F)
Specific Gravity/Density: Lipids: 0.9
Bulk Density: Datum not available
Vapor Pressure: Datum not available
Vapor Density: Datum not available

SECTION X - Stability and Reactivity

Stability: Stable under normal conditions.
Conditions to Avoid: Keep containers tightly closed to avoid contamination.
Materials to Avoid: Strong acids, bases or oxidizers.
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and nitrous oxides may form as well as other irritating or poisonous gasses.

SECTION XI - Toxicological Information

Chronic Toxicity: Prolonged and continued skin contact may cause sensitization.
Carcinogenicity: Not listed by IARC, NTP or OSHA.

SECTION XII - Ecological Information

No information available.

SECTION XIII - Disposal Considerations

Product is non-hazardous and not regulated as a hazardous waste. Dispose according to Federal, State and Local regulations.

SECTION XIV - Transport Information

Not regulated.

SECTION XV - Regulatory Information

Check individual state regulatory requirements for use as an animal feed ingredient and for distribution of this product.

FDA: This product does not contain restricted protein derived from mammalian tissues and is certified to be free of the agent that causes transmissible spongiform encephalopathy (TSE) [21 CFR 589.2000].

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SECTION XVI - Other Information

For safe handling, refer to NFPA 654, *Standard for the prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*

Reason for update: Add explosion hazard.

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