FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300 **IDENTIFICATION OF THE MATERIAL AND SUPPLIER** 1 **PRODUCT IDENTIFIER:** 1.1 TRADE NAME: BLACKJACK™ MG 3% MAGNESIUM 1.2 RECOMMENDED USE: LIQUID SECONDARY NUTRIENT **1.3 SUPPLIER DETAILS:** LOVELAND PRODUCTS, INC. P.O. Box 1286 • Greeley, CO 80632-1286 1.4 24-Hour Emergency Phone: 1-800-424-9300 - Medical Emergencies: 1-866-944-8565 U.S. Coast Guard National Response Center: 1-800-424-8802 HAZARDS IDENTIFICATION 2 2.1 Classification of the substance or mixture Classification according to 29 CFR 1910.1200 Eve Irritation Category 2B H320 Acute Toxicity (Dermal) Category 5 H313 Acute Toxicity (Oral) Category 5 H302 2.2 Label elements Signal word: WARNING Hazard Statement: H320 - Causes eye irritation. H313 - May be harmful in contact with skin. H302 - Harmful if swallowed Precautionary P261 - Avoid breathing dust / fume / gas / mist / vapors / spray Statement: P273 - Avoid release to the environment P280 - Wear protective gloves and eye / face protection (Prevention): Precautionary P337 + P313 – If eye irritation persists: get medical attention P305 + P351 + P338 - IF IN EYES: Rinse with water for 15 to 20 minutes. Remove contact lenses, if present, and Statement: (Response): continue rinsing eyes. P302 + P352 - IF ON SKIN: Wash with plenty of water for 15 to 20 minutes Precautionary Statement: (General): P101 + P102 + P103 - If medical advice is needed, have product container or label available. Keep out of reach of children. Read label before use 2.3 Other hazards None known **KEEP OUT OF REACH OF CHILDREN -**Appearance and odor: Black liquid with slight ammonia odor. WARNING - CATEGORY 2B CAUSES EYE IRRITATION, CATEGORY 5 MAY BE HARMFUL IN CONTACT WITH SKIN, CATEGORY 5 HARMFUL IF **SWALLOWED Potential Health effects** Routes of exposure Eye contact, skin contact, inhalation. Avoid breathing spray mist. Eves Causes eye irritation. Skin Can cause skin irritation. Inhalation May be irritating to respiratory system. May be irritating to mouth, throat, and stomach. Ingestion **Target organs** Eyes. Skin. Inhalation. May be harmful if swallowed, absorbed through skin or inhaled. Signs and symptoms Potential environmental effects This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment.

COMPOSITION, INFORMATION ON INGREDIENTS 3. 3.1 Substances Classification according to 29 CFR 1910.1200 3.2 Mixtures **Chemical Name:** CAS No. Classification Concentration [%] Magnesium Sulfate 7487-88-9 H320, 2B, Eye irritation. varies Anhydrous Ammonia 7664-41-7 varies Water 7732-18-5 Balance 4 FIRST AID MEASURES 4.1 Description of First Aid Measures General Advice: Get medical attention if symptoms occur. Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 Eye contact: minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person 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. Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or Skin contact: doctor for treatment advice. Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. 4.2 Most Important Symptoms and Effects, Acute and Delayed Symptoms: Eye irritation. 4.3 Immediate Medical Attention and Special Treatment Treatment: Treat symptomatically. Symptoms may be delayed. FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565 Take container, label or product name with you when seeking medical attention. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the NOTES TO PHYSICIAN: patient. FIRE FIGHTING MEASURES 5. 5.1 EXTINGUISHING MEDIA: Suitable Extinguishing Media: Foam, carbon dioxide (CO₂), dry powder, water spray. Do not use water jet as this will spread the fire. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: 5.2 Specific Hazards During Firefighting: During a fire, oxides of carbon and silicon dioxide can be released. SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS 5.3 Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry. ACCIDENTAL RELEASE MEASURES 6. 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions:	Avoid inhalation of vapors, dusts and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.			
6.2 ENVIRONMENTAL PRECAUTIONS				
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.			
6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP				
Methods for Clean-Up:	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to			

Remove residual contamination.

Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: Advice on Safe Handling:

Avoid inhalation of dusts, vapors / spray and contact with eyes, skin and clothing. Do not breathe dusts, mist or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers:

Store above 40^oF (4.4^oC). Store in original containers only. Keep containers tightly closed when not in use. Store in a cool, dry well-ventilated area, preferably in a locked storage area away from children, feed and food products and seed. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

 OCCUPATIONAL EXPOSURE LIMITS

 U.S. Workplace Exposure Level (OSHA) PELs
 Value

 Components
 Type
 Value

 Ammonia
 TWA
 35 mg/m³

 (ACGIH® TLVs®)
 STEL/CEIL (C)
 24 mg/m³

Biological limit values

ACGIH Biological Expo			
Components	Value	Specimen	
No listings			

8.2 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection:	Goggles or shielded safety glasses are recommended.		
Skin Protection:	Chemical resistant clothing is recommended. Routinely wash work clothing and protective equipment to remove contaminants. The use of chemical-resistant gloves is recommended when handling undiluted product. Be aware		
	that the liquid may penetrate the gloves. Frequent change is advisable.		
Respiratory Protection:	In case of inadequate ventilation or risk of inhalation of dusts or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-21C or NIOSH approved respirator with N, R, P or HE filter. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.		

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1	APPEARANCE : ODOR:	Liquid Slight ammonia.			
		No data available.			
	ODOR THRESHOLD:				
	COLOR:	Black.			
	pH:	8.2 - 8.6			
	MELTING POINT / FREEZIN	G POINT: No data available			
	BOILING POINT:	No data available			
	FLASH POINT:	>212 ^o F / 100 ^o C (Tag CC)			
	FLAMMABILILITY (solid, gas)	No data available.			
	UPPER / LOWER FLAMMAB	LITY OR EXPLOSIVE LIMITS: No data available.			
	VAPOR PRESSURE:	No data available.			
	SOLUBILITY:	Soluble			
	PARTITION CO-EFFICIENT,	n-OCTANOL / WATER: No data available.			
	AUTO-IGNITION TEMPERATURE: No data available.				
	DECOMPOSITION TEMPERATURE: No data available				
	VISCOSITY, dynamic:	No data available			
	SPECIFIC GRAVITY (Water =	= 1): 1.27 g/ml			
	BULK DENSITY:				
Note:	These physical data are ty	pical values based on material tested but may vary from sample to sample.			

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

- **10.2 CHEMICAL STABILITY**
- Stable under normal temperature conditions
- **10.3 POSSIBILITY OF HAZARDOUS REACTIONS**
- No reactions known under normal use conditions. Will not polymerize. 10.4 CONDITIONS TO AVOID
- None known.
- **10.5 INCOMPATIBILE MATERIALS**
- None known.
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS
 - None known.

11. TOXICOLOGICAL INFORMATION

11.1 LIKELY ROUTES OF EXPOSURE

Eye contact, skin contact. LC₅₀ (rat) No data available for product LD₅₀ Oral (rat): No data available for product LD₅₀ Dermal (rat): No data available for product Acute Toxicity Estimates: No data available for product Skin Irritation (rabbit): No data available for product Eye Irritation (rabbit): No data available for product Specific Target Organ Toxicity: Single exposure: No data available for product. Aspiration: No data available for product Skin Sensitization (guinea pig): Not a sensitizer Carcinogenicity: No data available for product Germ Cell Mutagenicity: No data available for product Interactive Effects: None known

12. ECOLOGICAL INFORMATION

12.1 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. This product is not intended for use in aquatic settings. Ecotoxicological Data

Components Species **Test Results** Anhydrous Ammonia (CAS: 7664-41-7) Aquatic Crustacea 2.9 mg/l un-ionized ammonia, 48 hours EC₅₀ Daphnia magna 0.163 - 0.42 mg/l un-ionized ammonia 21d-76wk NOEC Daphnia magna Fish LC_{50} Fish, various 0.09 - 3.51 mg/l un-ionized ammonia, 96 hours Fish, various NOEC 0.025 - 1.2 mg/l un-ionized ammonia 12d-5yr

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

14.1 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED.

U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI, LIQUID (NMFC 68140, SUB 6; CLASS 70)

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS							
NFPA & HMIS Hazard Ratings:	NFPA		HMIS				
	1 Health 0 Flammability 0 Instability		1 Health 0 Flammability 0 Reactivity B PPE				
SARA Hazard Notification/Reporting SARA Title III Hazard Category:	Immediate Y Delayed N		NSudden Release of PressureN				
Reportable Quantity (RQ) under U.S. CERCLA: Ammonia (CAS: 7664-41-7) 100 lbs. SARA, Title III, Section 313: Ammonia (CAS: 7664-41-7) RCRA Waste Code: Not listed CA Proposition 65: Not applicable							
16. OTHER INFORMATION							

SDS STATUS: New PREPARED BY: Registrations and Regulatory Affairs

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REVIEWED BY: Environmental Health and Safety

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