



Canadian Agri Products(USA) Corp.

Chemicals to Trade, Experience to Remember

Material Safety Data Sheet (MSDS)

MAPLE FERROUS AMMONIUM SULFATE

1. Identification of the substance	Product name: Ferrous Ammonium Sulfate Chemical formula: $(\text{Fe}(\text{NH}_4)_2(\text{SO}_4)_2$ Synonyms: Ammonium iron (II) sulfate (2:1:2); ammonium ferrous sulfate;	Supplier name: Canadian Agri Products (USA) Corp. Address: PO. Box 251408, Plano, TX 75025-1408, 7905 Hannah Street, Plano, TX 75025 Telephone no.: 001 972 618 4200 Fax no.: 001 214 291 5348 E-mail: sales@canagri.net
2. Composition /information on ingredients	Substance Ingredients: Ferrous Ammonium Sulphate Einecs/elincs: 233-151-8 Hazard symbols: XI Cas number: 10045-89-3 Risk phrases: 36/37/38	
3. Hazards identification	Emergency overview: Warning! Cause irritation to skin, eyes and respiratory tract. Harmful if swallowed or inhaled. HMIS rating: Health Rating: 2 Flammability Rating: 0 Reactivity Rating: 0 NFPA rating: Health: 2 Flammability: 0 Reactivity: 0 For additional information on toxicity, please refer to Section 11.	
4. First aid measures	Oral exposure: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention. Inhalation exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Dermal exposure: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. Eye exposure: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.	



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<p>5. Fire fighting measures</p>	<p>Fire: Explosion: Fire Extinguishing Media: Special Information:</p>	<p>Not considered to be a fire hazard. Irritating and toxic ammonia gas may form in fires Not considered to be an explosion hazard. Sealed containers may rupture when heated. Use any means suitable for extinguishing surrounding fire. Use protective clothing and breathing equipment appropriate for the surrounding fire.</p>
<p>6. Accidental release measures</p>	<p>Spills:</p>	<p>Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water</p>
<p>7. Handling and storage</p>		<p>Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.</p>
<p>8. Exposure controls/personal protection</p>	<p>Airborne Exposure Limits: Ventilation System: Personal Respirators (NIOSH Approved): Skin Protection: Eye Protection:</p>	<p>-ACGIH Threshold Limit Value (TLV): 1 mg/m3 (TWA) soluble iron salt as Fe A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details If he exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g.lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.</p>
<p>9. Physical and</p>		



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<p>chemical properties</p>	<p>Appearance: Pale blue-green crystals. Odor: Odorless. Solubility: 26.9 g/100cc water @ 20C (68F) Specific Gravity: 1.86 Ph: No information found. % Volatiles by volume @ 0 21C (70F): Boiling Point: Not applicable. Melting Point: 100 - 110C (212 - 230F) Vapor Density (Air=1): > 1.0 Vapor Pressure (mm Hg): No information found. Evaporation Rate (buac=1): No information found.</p>
<p>10. Stability and reactivity</p>	<p>STABILITY: Stable under ordinary conditions of use and storage. Slowly oxidizes in moist air. Hazardous Decomposition Products: May emit ammonia, oxides of sulfur, oxides of nitrogen, and oxides of carbon. Hazardous Polymerization: Will not occur. Incompatibilities: Conditions to Avoid: Sulfuric acid Heat, light, moisture.</p>
<p>11. Toxicological information</p>	<p>Routes of Entry: Inhalation. Ingestion. Toxicity to Animals: Acute oral toxicity(LD50): 3250mg/kg [Rat]. Chronic Effects on Humans: May cause damage to the following organs: liver, spleen. Other Toxic Effects on Humans: Slightly hazardous incase of skin contact (irritant),of ingestion,of inhalation. Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: _ Skin: Causes skin irritation. _ Eyes: Causes transient eye irritation and inflammation. _ Inhalation: Causes respiratory tract irritation. Symptoms may include coughing, wheezing, shortness of breath. _ May cause pulmonary edema. _ Ingestion: Causes irritation to the gastrointestinal tract. Symptoms may include stomach/ abdominal pain, nausea, lack of appetite, vomiting /vomiting brown or bloody stomach contents, diarrhea, black stool. Other symptoms may include pallor or cyanosis, central nervous system effects (CNS depression, lethargy, restlessness, congestion, lassitude, drowsiness), hyperventilation due to metabolic acidosis, hyperglycemia or hypoglycemia, hypotension, and cardiovascular collapse. May cause kidney damage. Pink urine is a strong indicator of iron poisoning. May also cause liver damage (hepatonecrosis, hepatotoxicity, hepatic failure). Although rare, acute iron poisoning may also cause Early Coagulopathy. This is a blood coagulation disorder which is</p>



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	<p>Chronic Potential Health Effects</p> <p>Eyes:</p>	<p>associated with severe hepatotoxicity. _ Acute or serious poisoning from iron or iron salts is rare in adults.</p> <p>Chronic (Repeated or prolonged)ingestion of ron or iron salts results in increased accumulation of iron in the body, particularly the liver, spleen, and lymphatic system. It may cause Liver damage (Hemosiderosis in the liver), and rarely Hemochromatosis in the Kupffer cells of the liver. Chronic iron poisoning may also cause leukocytosis and anemia.</p> <p>Prolonged eye contact may cause conjunctivitis, and a brownish discoloration of the eye lens.</p>
12. Ecological information	<p>Environmental Fate:</p> <p>Environmental Toxicity:</p>	<p>No information found.</p> <p>No information found.</p>
13. Disposal considerations	<p>Appropriate method of disposal of substance or preparation</p>	<p>Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.</p>
14. Transport information		<p>Not regulated</p>
15. Regulatory information	<p>European/International Regulations</p> <p>Safety Phrases:</p> <p>Canada - DSL/NDSL</p> <p>Canada - WHMIS</p>	<p>European Labeling in Accordance with EC Directives</p> <p>S24/S25</p> <p>None of the chemicals in this product are listed on the DSL or NDSL list.</p> <p>This product has a WHMIS classification of D2B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.</p>
16. Other information		<p>N/A</p>

THE INFORMATION IN THIS MSDS RELATES TO THIS SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USERS' RESPONSIBILITY TO SATISFY THEMSELVES AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR THEIR OWN PARTICULAR USE.



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All non-emergency questions should be
Directed to Customer Service at

972-403-7444

24 hour emergency Telephone: Chemtrec 800-424-9300
National response in Canada: Canutec 613-996-6666
Outside US & Canada: Chemtrec: 202-483-7616

Note: Chemtrec and Canutec emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, exposure or accident involving chemicals.