

*FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL DAY OR NIGHT 1-800-561-8273 or  
CHEMTREC 1-800-424-9300*

**1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**MANUFACTURED FOR:**

LOVELAND PRODUCTS CANADA, INC.  
789 Donnybrook Drive • Dorchester, Ontario N0L 1G5

**24-Hour Emergency Phone:** 1-800-561-8273  
**Additional Emergency Phone (Canutec):** 1-613-996-6666 (Collect)

**CHEMICAL IDENTITY:** Copper Citrate  
**PRODUCT USE:** Soluble Micronutrient Fertilizer  
**REG. NO.:** 2001034B – Fertilizers Act  
**MSDS Number:** 2001034B-12-LPI      **MSDS Revisions:** Sections 1, 4      **Date of Issue:** 09/17/12      **Supersedes:** 07/06/10

**2. HAZARDS IDENTIFICATION SUMMARY**

**KEEP OUT OF REACH OF CHILDREN – CAUTION -** Avoid breathing dusts. Avoid prolonged or repeated skin contact. Avoid eye contact. This water soluble micronutrient is derived from Copper Sulfate and Citric Acid.  
This product is a pale blue-coloured granular powder with fertilizer-like odour. Primary routes of entry are eye contact and skin contact.

**3. COMPOSITION, INFORMATION ON INGREDIENTS**

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Copper Sulfate (Cu)	22.00	7758-99-8	not listed
Citric Acid	20.00	77-92-9	not listed

**4. FIRST AID MEASURES**

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.  
**If in eyes:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.  
**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for further treatment advice.  
**If swallowed:** Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273.** Have the product label or container with you when calling a poison control centre or doctor, or going for treatment.

**5. FIRE FIGHTING MEASURES**

**FLASH POINT (°F/Test Method):** Not applicable  
**FLAMMABLE LIMITS (LFL & UFL):** Not applicable  
**EXTINGUISHING MEDIA:** Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.  
**HAZARDOUS COMBUSTION PRODUCTS:** May include but are not limited to oxides of sulfur.  
**SPECIAL FIRE FIGHTING PROCEDURES:** Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Dusts or vapors can travel to a sources of ignition and flash back.

**6. ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**  
Avoid breathing dusts. Sweep up dry spills immediately and transfer to suitable containers for possible land application according to label use or for disposal. Check local and provincial regulations for proper disposal.  
**CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**7. HANDLING AND STORAGE**

**HANDLING:** Mix product in HDPE, fiberglass or stainless steel containers only. Wash thoroughly after handling. Avoid breathing dust. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.  
**STORAGE:** Carefully fold and secure open bags and store in a cool dry place away from children, feed and food products, pesticides, and seed. Do not contaminate water, food, or feed by storage or disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Not normally required.  
**RESPIRATORY PROTECTION:** Not normally required, if vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator with dust/mist prefilter.  
**EYE PROTECTION:** Chemical goggles or shielded safety glasses.  
**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, shoes with socks. Wear rubber or chemical-resistant gloves.

	<b>OSHA PEL 8 hr TWA</b>	<b>ACGIH TLV-TWA</b>
Nuisance Particulates	15 mg/m <sup>3</sup> (Total Dust)	Not listed

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE AND ODOUR:** Pale blue-colored granular powder with fertilizer-like odour  
**SPECIFIC GRAVITY (Water = 1):** 1.12 g/ml  
**VAPOUR PRESSURE:** Not applicable  
**PERCENT VOLATILE (by volume):** Not applicable  
**Note:** These physical data are typical 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.

**BULK DENSITY:** 1120 kg/m<sup>3</sup>  
**BOILING POINT:** Not applicable  
**EVAPORATION RATE: (Butyl Acetate = 1):** Not applicable

**SOLUBILITY:** Soluble  
**pH:** 1.6 - 1.7 (1% solution)

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable  
**CONDITIONS TO AVOID:** Excessive heat and moisture.  
**INCOMPATIBILITY:** Strong oxidizing agents.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of sulfur may be released in a fire situation.  
**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Oral LD<sub>50</sub> (male rat):** > 5000 mg/kg  
**Eye Irritation (rabbit):** May cause irritation  
**Inhalation LC<sub>50</sub> (female rat):** Not established.  
**Carcinogenic Potential:** Not listed in OSHA, NTP, IARC, or ACGIH.

**Acute Dermal LD<sub>50</sub> (rabbit):** > 5000 mg/kg  
**Skin Irritation (rabbit):** May cause irritation  
**Skin Sensitization (Guinea Pig):** Not established

**12. ECOLOGICAL INFORMATION**

Drift or runoff may adversely affect non-target plants. Do not contaminate water by cleaning of equipment or disposal of wastes. Use this product only as specified on the product labeling.

**13. DISPOSAL CONSIDERATIONS**

Completely empty bag into application equipment. Do not reuse bag. Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: Make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food, or feed by storage or disposal.

**14. TRANSPORT INFORMATION**

**DOT/TDG Shipping Description:** NOT REGULATED  
**U.S. Surface Freight Classification:** FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI, DRY (NMFC 68140, SUB 5; CLASS 50)  
**IMDG Shipping Description:** NOT REGULATED

Consult appropriate ICAO/IATA regulations for shipment requirements in the Air shipping mode.

**15. REGULATORY INFORMATION**

**NFPA & HMIS Hazard Ratings:**

NFPA		HMIS			
1	Health	0	Least	1	Health
0	Flammability	1	Slight	0	Flammability
0	Instability	2	Moderate	0	Reactivity
		3	High	E	PPE
		4	Severe		

**SARA Hazard Notification/Reporting**

<b>SARA Title III Hazard Category:</b>	Immediate	<u>Y</u>	Fire	<u>N</u>	Sudden Release of Pressure	<u>N</u>
	Delayed	<u>N</u>	Reactive	<u>N</u>		

**Reportable Quantity (RQ) under U.S. CERCLA:** Copper Sulfate (CAS: 7758-98-7) 10 pounds

**SARA, Title III, Section 313:** Copper Sulfate (CAS: 7758-98-7) 22%

**RCRA Waste Code:** Not listed

**CA Proposition 65:** Not listed

**16. OTHER INFORMATION**

**MSDS STATUS:** Sections 1 and 4 revised

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental Health and Safety

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