

MATERIAL SAFETY DATA SHEET

AMMO® 2.5 EC INSECTICIDE

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

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Loveland Products, Inc.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: AMMO® 2.5 EC INSECTICIDE
CHEMICAL NAME: Cypermethrin; (±)-a-Cyano(3-Phenoxyphenyl) methyl (±) *cis-trans*-3- (2,2-dichloroethenyl) 2,2-dimethylcyclopropanecarboxylate]
CHEMICAL FAMILY: Pyrethroid Insecticide
EPA REG. NO.: 279-3027-34704
MSDS Number: 2793027-04c-LPI **MSDS Revisions:** See section 16 **Date Of Issue:** 07/06/04 **Supersedes:** 05/26/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – AVISO - Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.) Harmful if absorbed through skin, inhaled, or swallowed. Causes eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, may cause sensitization reaction in some individuals. Avoid contact with eyes or clothing. Product should be opened and poured in a well-ventilated area. This product is an amber colored liquid with an aromatic odor. 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>
Cypermethrin	30.60	52315-07-8	Not Established
Oil mist (mineral)	<29.20	8012-95-1	5 mg/m ³
Inert Ingredients, including Aromatic Hydrocarbons*	≤40.20	64742-95-6	100 mg/m ³

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 center or doctor for further 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 center or doctor for treatment advice.

If in eyes: Hold eye 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 center or doctor for treatment advice.

If swallowed: 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Like the natural Pyrethrins, the synthetic derivative is expected to have relatively minor toxicity in humans. In fact, any significant acute toxic effects are more likely from a carrier hydrocarbon solvent. Consequently, induction of vomiting may increase the likelihood of the most important toxic potential, chemical pneumonia, and so should either be avoided or done only under medical supervision. Ingestion of a large amount calls for gastric lavage, with care (Trendelenburg position, suction available, cuffed endotracheal tube if patient is unconscious) to avoid intrapulmonary aspiration. A saline cathartic (sodium or magnesium sulfate), 15-30 gm dissolved in water should be given, as should 15-20 gm activated charcoal as slurry in water. Digestible fats, oils or alcohol may increase absorption and so should be avoided. Skin contact (vapor or powder) may be followed by transient tingling or numbness, usually of the face, but this subsides without treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): 106°F (>41.1°C) / CC

FLAMMABLE LIMITS (LFL & UFL): Not established

EXTINGUISHING MEDIA: Foam, dry chemical, carbon dioxide, water or fog.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride.

SPECIAL FIRE FIGHTING PROCEDURES: Wear protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors. Keep non-essential personnel away from the immediate fire area, and out of any fall-out or run-off areas.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderately combustible. When heated above the flashpoint, this material releases vapors which, when mixed with air, can burn or be explosive.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Small spill or leak: Avoid bodily contact. Confine spill by diking with suitable absorbent material. Pick up absorbed spill and place in a suitable container for proper disposal in accordance with all Federal, State and Local regulations.

Large spill or leak: Follow basic procedure as outlined in small spill or leak steps above. To clean and neutralize spill area, tools and equipment, wash with a solution of caustic soda or soda ash, and an appropriate alcohol (methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb any excess liquid and add to the drums of waste collected. Repeat if necessary. Dispose in accordance with Federal, State and Local regulations.

CAUTION: Do not allow any spill clean up materials to enter waterways.

7. HANDLING AND STORAGE

HANDLING: 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: Do not store below 10°F/-12°C. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Wear a NIOSH approved pesticide respirator with organic vapor cartridge and pesticide prefilter.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: coveralls over short-sleeved shirts and pants, shoes plus socks. Wear rubber or chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Oil mist (mineral)	5 mg/m ³	5 mg/m ³
*Trimethylbenzene	Not listed	123 mg/m ³
*Xylene (mixed isomers)	435 mg/m ³	434 mg/m ³
* Ethylbenzene	435 mg/m ³	434 mg/m ³
*1-Butanol	300 mg/m ³	61 mg/m ³
*Cumene	245 mg/m ³	246 mg/m ³

Personal Protective Equipment: Handlers who may be exposed to the dilute product through application or other tasks must wear: Coveralls over short-sleeved shirt and short pants, Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton®, shoes plus socks, and Protective eyewear. **Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:** Coveralls over short-sleeved shirt and short pants, Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton®, shoes plus socks, Protective eyewear, and Chemical-resistant apron when mixing or loading. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must no be reused until it has been cleaned.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Amber-colored liquid with aromatic odor

SPECIFIC GRAVITY (Water = 1): 0.975 g/ml

VAPOR PRESSURE (mmHg): Not established

PERCENT VOLATILE (by volume): Not established

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: 8.14 lbs/gal.

BOILING POINT: Not established

EVAPORATION RATE: Not established

SOLUBILITY: Emulsifies

pH: Not established

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat and fire.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 137 mg/kg

Eye Irritation (rabbit): Causes eye irritation.

Inhalation LC₅₀ (rat): 2.18 mg/L (4 HR)

Carcinogenic Potential: No components listed in ACGIH, OSHA, NTP, or IARC as a carcinogen.

Acute Dermal LD₅₀ (rabbit): > 2000 mg/kg

Skin Irritation (rabbit): May cause irritation.

Skin Sensitization (guinea pig): Sensitizer

12. ECOLOGICAL INFORMATION

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated area. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops if bees are visiting the treatment area.

13. DISPOSAL CONSIDERATIONS

Do not reuse empty container. **Plastic containers:** Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. **Metal containers:** Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Do not cut or weld metal containers. **Returnable/Refillable Sealed Containers:** Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: PYRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE, 6.1, UN3351, III (CYPERMETHRIN, XYLENE) ERG GUIDE 131
U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OR VERMIN EXTERMINATORS, ANIMAL OR POULTRY, NOI; POISON (NMFC 102100; CLASS: 77.5)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:		NFPA		HMIS
3	Health	0	Least	3 Health
2	Flammability	1	Slight	2 Flammability
0	Instability	2	Moderate	0 Reactivity
		3	High	H PPE
		4	Severe	

SARA Hazard Notification/Reporting

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

Reportable Quantity (RQ) under U.S. CERCLA: Xylene (mixed isomers) (CAS: 1330-20-7) 100 pounds; Ethylbenzene (CAS: 100-41-4) 1000 pounds; 1-Butanol (CAS: 71-36-3) 5000 pounds; Cumene (CAS: 98-82-8) 5000 pounds

SARA, Title III, Section 313: 1,2,4 Trimethylbenzene (CAS: 95-63-6) 9.6%; Xylene (mixed isomers) (CAS: 1330-20-7) 6.0%; Ethylbenzene (CAS: 100-41-4) 0.9%; 1-Butanol (CAS: 71-36-3) 0.7%; Cumene (CAS: 98-82-8) 0.6%

RCRA Waste Code: Not listed

CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Format modified to address changes in ANSI Standard Z400.1-2004

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

@Ammo is a registered trademark of FMC Corporation
 U.S. Patent No. 4,024,163

@Viton is a registered trademark of DUPONT DOW ELASTOMERS L.L.C.

This product is a Restricted Use Pesticide (toxic to fish and aquatic organisms)

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