

Material Safety Data Sheet

Effective Date: 22-MAR-2001  
Product: AMMO 2.5 EC INSECTICIDE, HELENA

I. IDENTIFICATION

Chemical Name: Cypermethrin  
Chemical Family: Pyrethroid Pesticide  
Formula: C22-H19-CL2-NO3 (cypermethrin)  
Synonyms: None  
CAS Number: 52315-07-8 (cypermethrin)  
EPA Number: 279-3027-5905

II. PHYSICAL DATA

Boiling Point: Not determined  
Freezing Point: Not determined  
Spec Gravity: 0.975 gms/cc  
Vapor Pressure: Not determined  
Vapor Density: Not determined  
Solubility: Emulsifies  
Volatiles: Not determined  
Evaporation: Not determined  
Melting Point: Not available  
Appearance: Amber liquid with aromatic solvent odor.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Cypermethrin	52315-07-8	30.60	None	Moderately toxic
Mineral Oil mist	8012-95-1	<29.20	5 mg/m3	
Aromatic Hydrocarbons	64742-95-6	<18.90	100 ppm	
1,2,4-trimethylbenzene	95-63-6	<9.60	25 ppm	
Surfactant Blend	NA	<6.30	None	
Xylene	1330-20-7	<6.00	100 ppm	
Inert Ingredients, including ethylbenzene, 1-butanol and cumene		<2.20	50-100 ppm	

IV. FIRE AND EXPLOSION HAZARD

Flash Point: 106 Degrees F. (CC)  
Autoignition Temp: Not determined  
Flammable Limit: Not determined  
Extinguishing Media: Foam, carbon dioxide or dry chemical. Soft stream water fog only if necessary. Contain all runoff.  
Special Fire Fight Proc: Isolate fire area and evacuate exposed

Material Safety Data Sheet

Effective Date: 22-MAR-2001

Product: AMMO 2.5 EC INSECTICIDE, HELENA

---

individuals downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated during fire event.

Fire and Expl Hazard: Heat and fire may result in thermal decomposition and the release of carbon monoxide, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride.

---

V. HEALTH HAZARD

---

Carcinogen Information: Not listed by IARC, OSHA or NTP.

ACUTE EFFECTS OF OVER EXPOSURE

---

Swallowing: Oral LD50 of 137 mg/kg (rat). Moderately toxic by ingestion. Signs of overexposure include lethargy, convulsions, and incoordination.

Skin Absorption: Dermal LD50 is > 2000 mg/kg (rabbit). Low dermal toxicity.

Inhalation: Inhalation LC50 of 2.18 mg/L/4 hr. (rat). Low inhalation toxicity.

Skin contact: Mildly irritating to the skin. May produce skin sensations such as numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours. May produce skin sensitization (allergic reaction).

Eye Contact: Mildly irritating to the eyes and mucous membranes. Signs of overexposure include excessive tearing of eyes.

Chronic Effects: No chronic effects data available for formulated mixture. Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings, and liver or kidney damage.

Other Hazard: Effects from overexposure result from either swallowing, or coming into contact with the skin or eyes. Symptoms of overexposure include lethargy, continuous muscle contractions, convulsions, incoordination, tearing eyes and hair loss.

EMERGENCY AND FIRST AID PROCEDURES

---

Swallowing: Rinse mouth with water until taste is gone. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical

Material Safety Data Sheet

Effective Date: 22-MAR-2001

Product: AMMO 2.5 EC INSECTICIDE, HELENA

-----  
treatment immediately.

Skin: Wash affected areas with soap and water. Get medical attention if irritation occurs and persists.

Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

Eyes: Flush eyes with water for at least 15 minutes, holding eyelids open. If irritation occurs and persists, obtain medical attention.

Notes to Physician: This product has moderate oral, and low dermal and inhalation, toxicity. It is expected to be mildly irritating to the eyes and skin. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Do not administer milk, cream or other substances containing animal or vegetable fats, as they enhance absorption. Central nervous system stimulation should be controlled with sedation by, for example, barbituates. Contains aromatic hydrocarbons that may produce a severe pneumonitis if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

-----  
VI. REACTIVITY

-----  
Stability: Stable

Conditions to Avoid: Excessive heat and fire.

Polymerization: Will Not Occur

Conditions to Avoid: None noted.

Incompatibility material: None noted.

Hazardous Combustion: Heat and fire may result in thermal decomposition and the release of carbon monoxide, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride

-----  
VI. SPILL OR LEAK PROCEDURES

-----  
Spill or Leak Proc: Wear appropriate PPE to avoid contact with spilled material. Isolate, dike and confine spill area. Use an absorbent such as clay, sand or soil. Vacuum, shovel or pump into a

Material Safety Data Sheet

Effective Date: 22-MAR-2001

Product: AMMO 2.5 EC INSECTICIDE, HELENA

-----  
drum for proper disposal. To clean and neutralize spill area or equipment, wash with a solution of caustic or soda ash and an appropriate alcohol (i.e., methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb excess liquids and add to drum for disposal.  
Waste Disposal Method: This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.  
-----

VIII. SPECIAL PROTECTION INFORMATION

-----  
Respiration: Use NIOSH/MSHA-approved respirator with pesticide cartridge.  
Ventilation: Local exhaust should be sufficient.  
Gloves: Chemical resistant gloves, such as nitrile.  
Eyes: Chemical workers goggles or splash shield.  
Other: Full-body protective clothing, eyewash station and safety shower.  
-----

IX. SPECIAL PRECAUTIONS

-----  
Special precaution: Keep out of reach of children and animals. Do not store with food, feed or other materials to be used or consumed by humans or animals. Do not contaminate other pesticides or fertilizers with this product. Do not contaminate water supplies, lakes, streams or ponds. Cypermethrin is highly toxic to fish and aquatic organisms. Contain any runoff to prevent contamination.  
Other precaution: Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only.  
-----

X. SHIPPING INFORMATION

-----  
Shipping name: Pesticides, Liquid, Toxic, Flammable, N.O.S., (Cypermethrin), 6.1, (3), UN 2903, PG III "ERG # 131"  
-----

Helena Chemical Company  
PH: 901-761-0050  
CHEMTREC: 800-424-9300

10-DEC-2001 09:33:49  
Page 5 Of 5

Material Safety Data Sheet

Effective Date: 22-MAR-2001  
Product: AMMO 2.5 EC INSECTICIDE, HELENA

---

Hazard Class: CLASS 6.1, (3)  
Identification No: UN 2903  
Labels Required: Poison (6.1), Flammable  
Placarding: Poison (6)  
Freight Class: Insecticides, N.O.I., Other than a Class A  
Poison (NMFC Item 102100, Class 60)

Chemical Name	Equivalent R.Q.
Not applicable	Not applicable

---

XI. GENERAL PRODUCT INFORMATION

---

National Fire Protection Association Rating:  
(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

Health: 2                      Fire: 2                      Reactivity: 0

S.A.R.A. Title III Hazard Classification: (Yes/No)

Immediate (Acute) Health: Y	Delayed (Chronic) Health: Y
Sudden Release of pressure: N	Fire: Y
Reactive: N	

---

Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017  
Helena Chemical Company believes that the data contained herein is factual.  
This data is not to be taken as a warranty or representation of legal  
responsibility. It is offered solely for your consideration, investigation  
and verification.