

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
cypermethrin technical	52315-07-8	30.6	N/A
Mineral oil	64742-55-8	<30	N/A
Aromatic hydrocarbons		<40	N/A

4. FIRST AID MEASURES

Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin Contact

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call poison control center or doctor for treatment advice.

Inhalation

Move person to fresh air.
Call a poison control center or doctor for further treatment advice.
If person is not breathing, call 911 or an ambulance, then give artificial respiration.

Ingestion

Call a physician or Poison Control Centre immediately
Never give anything by mouth to an unconscious person
Do not induce vomiting unless told to do so by a poison control center or doctor

Notes to Physician

Contains aromatic hydrocarbon: Do not induce vomiting due to aspiration hazard, consideration should be given to gastric lavage. Ingestion of large amount might result in central nervous system stimulation.

5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties

Flash Point

50°C / > 122°F

Method

Pensky Martin Closed Cup

Autoignition Temperature

Not available

Flammability Limits in Air

Not established

Extnguishing Media

Foam, Carbon dioxide (CO2) Dry chemical.

Fire/Explosion Hazard

Combustible material Heated material can form flammable and explosive vapors with air.

Hazardous Combustion Products

Carbon monoxide, Carbon dioxide (CO2), Hydrogen chloride, chlorine, hydrogen cyanide.

NFPA

Health 2

Flammability 2

Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with the skin and the eyes. Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions	Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbant such as clay, sand or soil. . Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits..
Methods for Clean-up	Remove all ignition sources. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	Keep out of reach of children. Wear personal protective equipment. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Keep away from flames and hot surfaces. Remove and wash contaminated clothing before re-use.
Storage	Store in cool/well-ventilated place. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Engineering Controls	Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. .
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Personal Protective Equipment

Eye/face Protection

Where there is potential for eye contact have eye flushing equipment available.. Use eye protection to avoid eye contact. .

Skin Protection

Wear protective gloves/clothing.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. .

General Hygiene Considerations

Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Wash hands and face before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow	Odor	Aromatic
Physical State	Liquid	pH	4.71
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	0.971	Solubility	Emulsifies
Evaporation Rate	Not available	Vapor Pressure	Not available
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	8.095 lb/gal
Bulk Density	No data available	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
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Conditions to Avoid	Heat, flames and sparks
Incompatible Materials	No materials to be especially mentioned
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). hydrogen cyanide. Hydrogen chloride. chlorine.
Possibility of Hazardous Polymerization	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Up-Cyde 2.5 EC
 Acute oral LD50: 355 mg/kg
 Acute dermal LD50: > 2,000 mg/kg (rabbit)
 Acute inhalation LC50: >2.02 mg/L (4 hr rat)
 Eye and skin irritation: Moderately irritating
 Dermal sensitization: Not a sensitizer

Signs of toxicity in laboratory animals included hypertonicity, ataxia, lethargy, convulsions, gasping, salivation, dyspnea and alopecia.

Chronic Toxicity

Carcinogenicity

Cypermethrin: In animal studies cypermethrin did not cause reproductive toxicity, teratogenicity, neurotoxicity or carcinogenicity in male and female rats and male mice. Cypermethrin caused an increase in benign lung tumors in female mice at 1600 ppm in the diet. The EPA concluded on a weight of evidence approach that cypermethrin represents a low oncogenic potential to female mice at this dose level (approximately 228 mg/kg/day). Liver enlargement is often noted in laboratory animals that have ingested large doses of cypermethrin in their life span. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosome aberrations. .

12. ECOLOGICAL INFORMATION

Ecotoxicity

Cypermethrin:

Is rapidly degraded in soil with a half life of 2-4 weeks. It is readily hydrolyzed under basic conditions; hydrolysis half-life period can be 20-29 days. Cypermethrin has a high affinity for organic matter and a Log Pow of 5.0; yet, because of the ease with which the material undergoes degradation, it has very low potential for bioconcentration (BCF= 17), and it is not mobile in soil.

Cypermethrin is considered extremely toxic to fish and aquatic arthropods, and has LC50 values which range from 0.004 ug/L to 3.6 ug/L. The aquatic arthropods tended to be some of the more sensitive species. Care should be taken to avoid contamination of the aquatic environment. Cypermethrin is slightly toxic to birds and oral LD50 values are greater than 10,248 mg/kg. .

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. . Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Do not apply directly to wetlands or water..

Contaminated Packaging

Empty containers may contain hazardous residues. Containers should be handled as instructed by following all container disposal directions .

14. TRANSPORT INFORMATION

DOT	When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated. When shipped in bulk use IMDG shipping description
Marine Pollutant:	This product contains a chemical which is listed as a severe marine pollutant according to DOT.
ICAO	
UN-No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s (aromatic hydrocarbon)
Hazard Class	3
Packing Group	III
IATA	
UN-No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s (aromatic hydrocarbon)
Hazard Class	3
Packing Group	PG III
ERG Code	3L
IMDG/IMO	
Proper Shipping Name	Flammable liquid, n.o.s (aromatic hydrocarbon)
Hazard Class	3
UN-No	UN1993
Packing Group	PG III
EmS No.	F-E,S-E
Special Provisions	223, 274, 330, 944, 955
Marine Pollutant	This product contains a chemical which is listed as a severe marine pollutant according to IMDG/IMO (Cypermethrin)

15. REGULATORY INFORMATION

International Inventories

cypermethrin technical	
EINECS/ELINCS	Listed
CHINA	Listed
KECL	Listed
Mineral oil	
DSL	Listed
EINECS/ELINCS	Listed
CHINA	Listed
KECL	Listed
Aromatic hydrocarbons	
DSL	Listed
EINECS/ELINCS	Listed
CHINA	Listed
KECL	Listed

USA**Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

CERCLA**RCRA****Pesticide Information****State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
cypermethrin technical	Listed.				
Mineral oil	Listed.				

International Regulations**Mexico - Grade**

Not available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

Revision Date

19-Jun-2008

Revision Summary

Update section 14

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End of MSDS