



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Information

Product Name	: Cypermethrin TECHNICAL
Chemical Name	: (RS)- α -cyano-3-phenoxybenzyl (1RS, 3RS; 1RS, 3SR)-3-(2,2-dichlorovinyl)-2, 2-dimethylcyclopropanecarboxylate
Chemical Formula	: CYPERMETHRIN: $C_{22}H_{19}O_3NCl_2$
Mol. Wt.	: CYPERMETHRIN: 416.3
Chemical Family	: CYPERMETHRIN: Synthetic pyrethroid (cyano ester)
Use	: Insecticide
Company	: HPM Chemicals & Fertilizers Ltd.
Address	: 209-219, Anupam Bhawan, Azadpur Commercial Complex, Azadpur, Delhi- 110033
Telephone	: (011)-45071800, 899
Fax	: (011)- 27681800
Website	: www.hpmindia.com
E-mail	: info@hpmindia.com

2. Composition / Information on Ingredients

Chemical Name	CAS No	Concentration [%]
Cypermethrin A.I.	52315-07-8	93.0
Impurities/Bi-products	-----	Q.S.

3. Hazards Identification

Symptoms of poisoning: Accidental ingestion or large quantities could produce tumours, anxieties and weakness of limbs, nervousness convulsion and allergic manifestation.

Skin: Coetaneous parenthesis may occur including numbness, itching, burning, tingling and warmth.

Eyes: Mild irritant.

Inhalation: May cause, after heavy exposure, hypersensitivity, ataxia, Urinary incontinence.

Ingestion: May cause hypersensitivity, ataxia, urinary incontinence.

Other information: -

Physical/chemical effects: Flammable product.

Environmental effects: Toxic to aquatic organism.

4. First Aid Measures

Inhalation: Remove the victim to fresh air immediately. In case of difficulty in breathing perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

Ingestion: Empty the stomach by gastric lavage with the aid of cuffed endotracheal tube using isotonic 5% sodium bicarbonate. Establish and maintain airway. Treat respiration difficulty with artificial respiration and oxygen.

Skin Contact: Remove all contaminated clothes and shoes. Wash the affected area(s) and clothing with soap and plenty of water. If irritation persists, get medical attention.

Eye Contact: Flush promptly with plenty of clean water for at least 15 minutes. Seek medical advice if symptoms of irritation persist.

Antidote: If ingested, take the patient to hospital and give gastric lavage with care to prevent aspiration. Give symptomatic and supportive treatment. Administer antihistamine



MATERIAL SAFETY DATA SHEET

in case of allergic symptoms occur. Phenobarbital may be used to control nervous symptoms. Treat symptomatically.

5. Fire Fighting Measures

Flash point : 160⁰C

Fire and explosion hazard : Fire hazard may occur when exposed to intense heat or open flame and may cause violent rupture of package.

Upper explosion limit : NA

Lower explosion limit : NA

Extinguishing media : Dry chemical, carbon dioxide, halon, standard foam

Extinguishing procedure : Wear full personnel protective equipment and clothing. Evacuate people to a safe area. Move the unaffected containers, if possible without taking risk. Fight fire from a maximum distance. Water spray may be used to cool unaffected containers. Dike the area to prevent the spread of fire fighting material. After extinguishing the fire collect the material for proper disposal.

Caution : Do not use water spray on the fire, it may spread the fire due to solvent in formulated material.

6. Accidental Release Measures

Personal Precautions: Use personal protective equipments.

Environmental Precautions: Do not allow entering drains or watercourses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

Occupational spill: For **Soil** spills, Dike the area. Absorb on sand or other absorbent media and place in close container for proper disposal. For **Water** spills, Absorb the material by activated carbon using suction hoses to remove trapped material. For **Large spills** contact the manufacturer. Do not touch spilled material. Stop leak, if possible. Absorb on sand or saw dust and put in clean container for later disposal.

7. Handling and Storage

Handling: Do not drop the containers. Keep the material in original container and tightly closed. Avoid breathing of vapours and bodily contact. Wear full protective clothing while handling the material. Do not reuse the protective clothing without proper washing with detergent.

Storage: Keep in a cool dry place in original packing store under lock and key. Keep out of reach of children. Do not store near foodstuff. Poultry and domestic animals. Do no load with foodstuff while transportation. Check that containers are sound and labels undamaged before dispatch.

8. Exposure Controls/Personal Protection

Personal protective eq.(PPE) must be worn by handlers coming in contact with pesticide.

Respiratory : Appropriate and approved respirator.

Eye and face : Goggles, face shield or safety glasses with front brow.

Hands : Chemical – resistant gloves

Body : Chemical – resistant coveralls, boots and hat.

Ventilation : Provide local exhaust to suck out vapours or gases.

Industrial hygiene : Safety shower and eye bath should be provided at work place. Do not eat, drink or smoke while working. Wash hands before meals and after work with soap.



MATERIAL SAFETY DATA SHEET

9. Physical and Chemical Properties

Physical state:	Liquid to semi solid mass
Colour:	Yellow-Brown
Acidity (pH):	5.26
Solubility:	In Water: 0.0038 mg/l at 25°C in Water.
Stability:	Stable at room temperature for 2 years
Compatibility:	Compatible with non –alkaline pesticides
Boiling point / range:	Upto 200°C no Boiling.
Melting point / range:	Not applicable.
Flash point:	160 °C°
Flammability:	Flammable/ > 160C°
Auto ignition:	NA
Oxidising properties:	None
Vapour pressure:	Negligible
Density:	1.20 g/ml at 20°C

10. Stability and Reactivity

Stability:	Stable for 2 years under optimum condition of storage.
Conditions to avoid:	No special precautions other than good housekeeping of chemicals.
Material to avoid:	Strong oxidizing agents.
Hazardous decomposition:	Thermal decomposition products may emit toxic fumes of hydrogen cyanide and oxides of carbon and nitrogen.
Incompatibility with other Material:	Incompatible with alkaline pesticides

11. Toxicological Information

LD50 Acute Oral:	Rat = 535.85 mg/kg b.w. Mice = 269.92 mg/kg b.w.
LD50 Acute Dermal:	Rat = >3000 mg/kg b.w. Rabbit = 2500 mg/kg b.w.
LD50 Acute Inhalation:	Rat = 3.00 mg/lit. air
Skin Irritation:	Rabbit = Slight irritation
Eye Irritation:	Rabbit = Slight irritation
Skin Sensitization:	Weak skin sensitizer.
CHRONIC TOXICITY	
Two Years study in Rat NOEL:	7.5mg/kg
Two Years study in dog NOEL:	5 mg/kg

12. Ecological Information

Bees:	Toxic to bees
Birds:	Bobwhite Quail LC50 = >20,000 ppm Mallard Duck LD50 Oral = >4640 mg/kg
The Aquatic Organisms: (Pitch, Daphnia, Algae ug/lit.)	Daphnia Magna LD50 = >0.0002 mg/lit Blue-Green Algac (Nostoc linckia)LC50 (20H)=20,000
Fishes:	Bluegill Sunfish LD50 (96H) = 0.0018 mg/lit Rainbow Trout LD50 (96H) = 0.0082 mg/lit



MATERIAL SAFETY DATA SHEET

13. Disposal Considerations

Pesticide Surplus disposal: Surplus and waste material should be neutralized by lime or caustic at pH 10 to 11 with proper stirring. Treated material should be analyzed for complete neutralization of active ingredients prior to incineration of residue material using good scrubbing system.

Container disposal: Empty containers should be neutralized as described above. After decontamination, containers should be broken and buried away from human habitation and underground water source. Observe all federal, state and local regulations when disposing off this substance. Do not contaminate water and environment.

14. Transport Information

UN No. : 2902
Class : 6.1
IMDG PG : 6219
Packing group : III
Proper shipping name : Pyrethroid pesticide, liquid, toxic, flammable
Marine pollutant : Marine pollutant

15. Regulatory Information

Hazard symbol : The harmful symbol (Xn).
Risk phrases : R10, R20/22, R43 R51/53, R57
Safety phrases : S1/2, S13, S20/21, S36/37/39, S29/56

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are resented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS. Accordingly, no guarantee or warrantee expressed or implied is made by HPM Chemicals & Fertilizers Ltd., as to the results to be obtained based upon the user's use of the information, nor does HPM Chemicals & Fertilizers Ltd., assume any liability arising out of user's use of the information.

Prepared by: HPM Chemicals & Fertilizers Ltd., Safety Division
