

MATERIAL SAFETY DATA SHEET

CYPERMETHRIN 15% EC

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Name of the product	:	Cypermethrin 15% EC
Product use	:	A Pyrethroid Insecticide
Company	:	The Scientific Fertiliser Co.(P) Ltd "Sudarsanam" No.8, Ponnurangam Road, R.S.Puram, Coimbatore, 641002, INDIA. Tele : 0422 2547312 Factory: 136/2A&2B, Pudukottai Road, Gundur Village. Trichy-620007. India. Tele: 0431 2660326 Fax : 0431 2660123

Section 2. COMPOSITION/ INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NOS.	%
Cypermethrin	67375 – 30 - 8	15
EMULSIFIERS A mixture of Anionic – Alkylaryl sulphonate and Nonionic Polyoxy ethylene ether	25155 – 30 – 0 9016 – 45 – 9	10
Masking fragrance	-----	1
Solvent – Naphtha	64742-94-5	74
Total		100

Ingredients not precisely identified are proprietary or non hazardous. Values are not product specifications. The information contained here in is for the concentrate as packaged, unless otherwise noted.

Section 3 : Recommended uses

BARRIKIR (Cypermethrin 15% EC) apart from the usual agriculture use as a synthetic pyrethroid, also recommended as a pesticide use in animal husbandary for the control of ticks, lice and other mites attacks on cattle, pets etc. The dosage is as per the recommendation of the veterinary experts according to the level of ailment and as per the recommendation of the importing country.

Section 4. HAZARD IDENTIFICATION

Physical hazards	:	Combustible liquid
Health hazards	:	Irritant (eye, skin sensitization), Harmful (oral). Inhalation (TLV). irritating to respiratory system. Based on the aromatic petroleum solvent, harmful (central nervous system depression, gastrointestinal disturbance).

Section 5. FIRST AID MEASURES

If in Eyes	:	Immediately flush with plenty of water for at least 15 minutes. If redness, itching or a burning sensation develops, have eyes examined and treated by medical personnel. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
If on Skin	:	Wash material off the skin with plenty of soap and water. If redness, itching or a burning sensation develops, get medical attention.
If swallowed	:	Provided the patient is conscious, wash out mouth with water. Vomiting should only be induced under the direction of a physician or a poison control center. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer water.

If Inhaled	:	Remove victim to fresh air. Apply artificial respiration if breathing has ceased or shows signs of failing. Obtain medical attention.
Medical advice	:	Inducing vomiting to remove this preparation from the stomach can increase the risk of chemical pneumonitis and pulmonary edema due to aspiration of stomach contents.

Section 6. FIRE FIGHTING MEASURES

Auto ignition temperature	:	No data
Flash point	:	63 ° C
Extinguishing media	:	Water fog, alcohol foam, carbon dioxide, dry chemical or halogenated agents. Water spray should be used to cool containers.
Protective equipment	:	Self-contained breathing apparatus with full face piece and protective clothing.
Usual fire and explosion hazards	:	Combustible liquid by OSHA 29 CFR 1910.1200. If heated above the flash point, heavy vapors can flow along surfaces to distant ignition sources and flash back. Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.
Special precaution	:	Follow procedures specified in the National Fire Protection Association codes and standards for handling combustible liquids. Prevent skin and eye contact. Avoid breathing vapors or aerosols.

PERSONAL PRECAUTIONS:

Recommended steps to be taken when concentrate material is released or spilled:

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. Use adequate ventilation and wear a properly fitted half face or full face NIOSH/MSHA respirator approved for pesticides. Wear proper protective clothing, gloves made of materials such as rubber or neoprene, and chemical protective eye protection (refer to section 8).

Recommended steps to be taken when diluted concentrate material is released or spilled:

Keep unprotected persons and animals out of the spill area. Make sure the area is adequately ventilated for large spills. Wear proper protective clothing, water-proof gloves and eye protection (refer to section 8). Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Ensure suitable personal protection (including respiratory protection) during removal of spillages. Wear suitable protective clothing and eye protection to prevent skin and eye contact.

ENVIRONMENTAL PRECAUTIONS:

Washings must be prevented from entering surface water drains.

ADDITIONAL INFORMATION:

PROCEDURES FOR CLEANING UP:

1. Spread a suitable absorbent such as clay on the spill, and shovel into an open drum.
2. Generously cover the contaminated areas with common, household detergent (e.g. TIDE, registered trademark of Proctor & Gamble Co.). Using a stiff brush and small amounts of water, work the detergent into the remaining spilled material forming a slurry. Brush the slurry into cracks and crevices and allow to stand for 2–3 minutes. Be careful to completely avoid skin or eye contact. Do not splatter on oneself or bystanders.
3. Spread absorbent on the slurry liquid and shovel mixture into the opendrum.
4. Repeat #2 and 3 if necessary.
5. Rinse with a small amount of water and use absorbent to collect the wash solution. Shovel into the drum.
6. Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan.

Section 8. HANDLING AND STORAGE

SAFE HANDLING ADVICE:

Do not get on skin or clothing. Avoid contact with eyes. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

REQUIREMENTS FOR STORAGE ROOMS:

Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs. Containers should be stored in a cool, dry, well-ventilated area away from flammable materials and sources of heat or flame. Exercise due caution to prevent damage to or leakage from the container.

9. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE PROTECTION:

MANUFACTURING: Chemical tight goggles; full faceshield in addition if splashing is possible.

END-USER: When making applications of diluted material in non-ventilated spaces or when rodding or subslab injecting, wear protective eyewear (goggles and/or safety glasses with side shields and/or face shield)

BODY PROTECTION:

MANUFACTURING: When handling or when exposure to concentrate is possible, wear: long-sleeved shirt and long pants, waterproof gloves, shoes and socks, face shield and chemical-resistant apron. Remove contaminated clothing and wash before re-wearing. Wash separately from other laundry.

END-USER: When handling concentrate during mixing wear coveralls over minimum of short pants and short sleeve shirt or chemical-resistant apron, chemical-resistant gloves, socks and chemical-resistant footwear. After concentrate is diluted, applicators may wear regular work clothes, socks, shoes and water-resistant gloves.

RESPIRATORY PROTECTION:

MANUFACTURING: Use MSHA–NIOSH approved respirator for pesticides.

END–USER: When making applications of diluted material in non–ventilated spaces, refer to label for recommended MSHA–NIOSH approved respirators to use.

OTHER PROTECTIVE EQUIPMENT:

MANUFACTURING:

Eyewash station and safety shower in manufacturing work area. Use ventilation adequate to maintain safe levels in manufacturing workplace.

VENTILATION:

Use ventilation adequate to maintain safe levels.

Section 10. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Liquid
Colour	:	Light yellow
Odour	:	Mild Aromatic Odour
Boiling point	:	155 ° C
Vapour pressure	:	NA
Vapour density	:	NA
Specific gravity	:	0.92 ±0.01(25°C)
pH (1% solution)	:	5.6
Solubility	:	Organic solvents - Soluble Water – forms emulsion

Section 11. STABILITY AND REACTIVITY

Stability	:	Stable under normal storage condition
Hazardous polymerization	:	Will not occur
Hazardous reactions (materials to avoid)	:	strong oxidizing agents
Hazardous decomposition products	:	Combustion products – Carbon dioxide, carbon monoxide, nitrogen oxides , sulfur oxides , ammonia halogens , halogen acids , possible trace amounts of carbonyl halide

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Section 12. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)	:	LD50 Oral rats: 2375 mg/kg
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Additional inform	:	Moderately toxic
LD50 Dermal rat	:	> 5000 mg/kg
LC50 Inhalation male rats	:	> 25 mg/l
General information about acute or other toxicities Other effects of overexposure:	:	Ingestion can induce nausea, vomiting, abdominal pain and diarrhea. Large doses ingested may cause disturbance of the nervous system. Skin exposures may cause a skin sensation called paresthesia, which is usually described as tingling, itching, burning, prickling, glowing, flushing, numbness or a chapped feeling. There is no evidence of any long-term or cumulative effects on the skin. Symptoms may develop shortly after exposure or can be delayed up to four hours and can persist between 2 and 30 hours following contact. The effect may result from transferring the material to the face from contaminated gloves and hands.

Section 13. ECOLOGICAL INFORMATION

ECOTOXICITY

Additional inform. : This material is extremely toxic to fish and other aquatic organisms.

Section 14. DISPOSAL CONSIDERATION

Do not contaminate waterways by cleaning of equipment or by disposal of wastes. Untreated effluent should not be discharged where it will drain into lakes, streams, or ponds. Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

CONTAINER DISPOSAL:

Empty container retains product residue. Observe all hazard precautions. Do not distribute or make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from containers by triple rinsing or equivalent and puncture or otherwise destroy empty containers before disposal. For non-refillable end-use plastic containers: Completely empty container into application equipment then triple rinse (or equivalent). Then offer for recycling or puncture and dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state and local authorities.

15. TRANSPORT INFORMATION

ROAD TRANSPORT DOT

Inform. applies to: NON-BULK:

Pesticides, liquid, toxic, n.o.s. (contains cypermethrin,15%), 6.1, UN 3352, PGIII.

ROAD TRANSPORT DOT

Inform. applies to: BULK:

Pesticides, liquid, toxic, n.o.s. (contains cypermethrin, 15%), 6.1, UN 3352, PGIII, Marine pollutant.

Section 16. REGULATORY INFORMATION

HAZARDOUS INGREDIENTS

Cypermethrin Technical

Petroleum Solvent

Section 17. OTHER INFORMATION

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Notes:

1. CAS - Chemical Abstract Service Number
2. UN - United Nations Number
3. LD50 - Lethal Dose— 50% (Specify animal and routes For tests)
4. LC50 - Lethal Concentration 50 % (Specify animal species and routes for tests)
5. TDG - Transport of dangerous goods flammability ,Flammability - Classification by United Nations
6. NFPA - National Fire Protection Agency
7. STEL - Short Term Exposure Limit
8. ACGIH - American Conference of Government International hygienists.
9. TLV - Threshold Limit Value
10. NA - Not Available

Revised on: Feb 2015