

# Material Safety Data Sheet

## Cypermethrin %95 TC

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Chemical product name:** Cypermethrin %95 TC  
**Company information:** Choice Chemicals Ltd.  
 Centre of City, No.249 Wuyi Road, Furong District,  
 Changsha, Hunan 410011, P.R.China  
 Tel: 0086 731 89856736  
 Fax: 0086 73189878447  
 E-mail: info@choice-chem.com  
**24 hr Emergency number:** 0086 13298652316

### SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

Component	Percentage
Cypermethrin	95%

### SECTION 3 - HAZARDS IDENTIFICATION

**Major Health Hazards:** The onset of symptoms varies depending upon such factors as the route of absorption and quantity involved. In patients with occupational poisoning, skin symptoms usually develop within 4-6 hours after exposure, with systemic symptoms occurring as late as 48 hours after exposure. Paraesthesia of the facial skin can develop approximately 30 minutes after exposure and does not usually last beyond 24 hours when exposure is terminated. Following ingestion, the initial symptoms involve the gastrointestinal tract, developing 10-60 minutes after exposure. Patients suffering from acute oral poisoning usually develop prominent digestive symptoms such as epigastric pain, nausea and vomiting. Severely poisoned patients may have frequent convulsive attacks, coma, or pulmonary oedema. The prognosis is good if treated, with usually full recovery even in severely poisoned patients. (The hospitalization period is usually longer than 4 weeks).

### SECTION 4 - HAZARDS IDENTIFICATION

#### General Information:



You should call The Poisons Information Center if you feel that you may have been poisoned, burned or irritated by this product. Have this MSDS with you when you call.

**Inhalation:** If vapors or mists have been inhaled, and irritation or unusual symptoms have developed, remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

**Skin Contact:** If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and water to remove material. If you begin to feel unwell, seek medical attention.

**Eye Contact:** If product gets in eyes, wash material from them with running water. If they begin watering or reddening, take special care in washing thoroughly.

**Ingestion:** If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Center, or call a doctor.

**Advice to Doctor:** Treat symptomatically. Note the nature of this product.

## SECTION 5 - FIRE FIGHTING MEASURES

**Extinguishing Media:** carbon dioxide, dry chemical, foam, and water fog.

**Special Fire fighting procedures:** If a significant quantity of this product is involved in a fire, call the fire brigade. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and respirator. All skin areas should be covered.

**Unusual Fire & Explosion Hazards:** Fire decomposition products from this product may form toxic mixtures in confined spaces. Vapors from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

**Stability:** This product is unlikely to spontaneously decompose.

**Fire Decomposition:** Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Avoid contact with the spilled material or contaminated surfaces. Do not smoke, eat or drink during the cleanup process. Personnel involved in cleanup should wear full body protective

CHOICE CHEMICALS LTD.

Add: Centre of City, No.249 WUYI Road, Furong District, Changsha, Hunan Province, P.R.China  
Tel: 0086 731 89856736 Fax: 0086 731 89878447 Website: [www.choice-chem.com](http://www.choice-chem.com)

clothing and equipment as described in Section 8 – PERSONAL PROTECTION.

Keep people and animals away. Consider evacuation and obtain assistance from emergency services if needed. Prevent spilled material from entering drains or watercourses.

Contain spill and sweep up carefully. Avoid creating dust. Collect and store in recovery drums.

Clean floor with detergent and water, absorbing wash water with clay granules and transfer this to the drum. Seal and label drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

Decontaminate tools, equipment and clothing used in the cleanup. Dispose of any heavily soiled clothing, placing it in disposal drum.

## SECTION 7 - HANDING AND STORAGE

Store in cool, clean, ventilated, fireproof storage area. Keep away from heat, spark, open flame and incompatible materials. (Strong oxidizing agents). Protect containers against physical damage.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL, PROTECTION

### Exposure Standards:

A time weighted average (TWA) concentration for an 8-hour day, there is a blanket limit of 10mg/m<sup>3</sup> for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. The ADI (Acceptable Daily Intake) for Cypermethrin is set at 0.05 mg/kg/day. The corresponding NOEL (No- observable-effect-level) is set at 5 mg/kg/day.

### Engineering Controls:

In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high; you are advised to modify the process or environment to reduce the problem.

### Personal Protection:

Respiratory Protection : If there is a significant chance of dusts, vapours or mists accumulating in the area where this product is being used, a mask or respirator should be used. For help in selecting suitable equipment.

Protective Gloves : Impermeable elbow length PVC gloves should be worn when you are

using this product, since absorption through the skin is harmful. For help in selecting suitable equipment.

Eye Protection : Protective eyewear is suggested when using this product. It is always prudent to use protective eyewear.

Clothing : Clean overalls or protective clothing should be worn, preferably with an apron.

Safety Boots : Wearing safety boots in industrial situations is advisory.

Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** yellow-brown viscous semi-solid at ambient temperatures.

**Odour:** Not specific.

**Molecular Weight:** 416.3

**Molecular Formula:** C<sub>22</sub>H<sub>19</sub>Cl<sub>2</sub>NO<sub>3</sub>

**Melting point:** 61-83 °C, depending on isomer ratio.

**Vapour pressure:** 2.0 x 10<sup>-4</sup> mPa (20°C)

**Acidity:** Max. 1.5 g/kg calculated as H<sub>2</sub>SO<sub>4</sub>

**Flashpoint:** Not auto-flammable; non-explosive

**Density:** 1.24 at 20°C.

**Solubility in water:** In water 0.004 mg/l (pH 7).

**Corrosiveness:** Not corrosive.

## SECTION 10 - STABILITY AND REACTIVITY

**Stability:** This product is unlikely to spontaneously decompose.

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry.

**Incompatibilities:** Alkaline materials and strong oxidizing agents.

**Polymerization:** This product is unlikely to spontaneously polymerize.

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Oral LD<sub>50</sub> (rats):** 250 mg/kg (in corn oil) or 4150 mg/kg (in water). EPA reports an oral LD<sub>50</sub> of 187 to 326 mg/kg in male rats and 150 to 500 mg/kg in female rats. The oral LD<sub>50</sub> varies from 367 to 2000 mg/kg in female rats, and from 82 to 779 mg/kg in mice, depending on the ratio of cis/trans- isomers present. This wide variation in toxicity may reflect different mixtures

of isomers in the materials tested.

**Dermal LD50 (rats):** is > 4920 mg/kg and in rabbits is > 2460 mg/kg.

**Inhalation:** LC50 (4 h) for rats 2.5 mg/l.

**Eye irritation (rabbits)** - Slight eye irritant (rabbits).

**Skin irritation (rabbits)** - Slight skin irritant (rabbits).

**Sensitization (guinea pig)** - May be a weak skin sensitizer.

**Toxicity class:** WHO (a.i.) II

**Reproductive effects:** No adverse effects on reproduction were observed.

**Teratogenic effects:** Cypermethrin is not teratogenic.

**Mutagenic effects:** Cypermethrin is not mutagenic.

**Carcinogenic effects:** EPA has classified cypermethrin as a possible human carcinogen.

**Organ toxicity:** Pyrethroids like cypermethrin may cause adverse effects on the central nervous system.

**Fate in humans and animals:** In humans, urinary excretion of cypermethrin metabolites was complete 48 hours after the last of five doses of 1.5 mg/kg/day.

## SECTION 12 - ECOLOGICAL INFORMATION

### ENVIRONMENTAL FATE

Cypermethrin breaks down in plants to produce a variety of products. Biological degradation is rapid, and consequently levels of cypermethrin and its degradation products in soil and surface waters are very low.

**Birds:** Acute oral LD50 for mallard ducks >10000, chickens >2000 mg/kg.

**Fish:** LC50 (96 h) for rainbow trout 0.69, sheepshead minnow 2.37 mg/l; under field conditions, fish are not at risk from normal agricultural usage.

**Daphnia:** LC50 (48 h) 0.15 µg/l.

**Bees:** Highly toxic to honeybees in laboratory tests, but field applications at recommended dosages do not put hives at risk. LD50 (24 h) (oral) 0.035 µg/bee; (topical) 0.02 µg/bee.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**WASTE:** Pesticide wastes are toxic and hazardous. Dispose of in accordance with applicable and local laws and regulations. Do not discharge or pour into soil, drainage system or bodies of water.

**CONTAINER:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning (plastic containers). If burned, stay out of smoke.

## SECTION 14 - TRANSPORT INFORMATION

**DESCRIPTION:** Pyrethroid pesticide, Solid, Toxic.

**UN NUMBER:** 3352

**CLASS:** 6.1

**PACKING GROUP:** PG II

## SECTION 15 - REGULATORY INFORMATION

(for cis/trans- ratio 40:60)

**Risk Symbols:** Xn: Harmful, Xi: Irritant, N: Dangerous for the environment

**Risk Phrases:** R20/22: Harmful by inhalation and if swallowed.

**R37:** Irritating to respiratory system.

**R50:** Very toxic to aquatic organisms.

**R53:** May cause long-term adverse effects in the aquatic environment.

(for cis/trans- ratio 80:20)

**Risk Symbols:** Xn: Harmful, Xi: Irritant, N: Dangerous for the environment

**Risk Phrases:**

**R22:** Harmful if swallowed.

**R37/38:** Irritating to respiratory system and skin.

**R43:** May cause sensitization by skin contact.

**R50:** Very toxic to aquatic organisms.

**R53:** May cause long-term adverse effects in the aquatic environment.

## SECTION 16 - OTHER INFORMATION

*Disclaimer: Choice Chemicals Ltd.. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.*

CHOICE CHEMICALS LTD. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, CHOICE CHEMICALS LTD. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.