



**Material Safety Data Sheet (MSDS)**  
**Cymbaz 20 EC**

**IDENTIFICATION OF THE SUPPLIER:**

**AGRO CHEMICALS INDUSTRIES LTD**  
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**PRODUCT IDENTIFICATION:**

**Common Name:** Cypermethrin 20% w/v  
**Trade Name:** Cymbaz 20 EC  
**Chemical Name:** (RS) - \* - Cyano-3- phenoxybenzyl (1RS , 3RS ; 1RS , 3 SR) -3- (2,2-dichlorovinyl ) = 2,2- dimethylcyclopropanecarboxylate  
**Chemical Formula:** C<sub>22</sub>H<sub>19</sub>Cl<sub>2</sub>NO<sub>3</sub>  
**Molecular Weight:** 416.3

**PRODUCT COMPOSITION:**

<b>Active Ingredient:</b>	<b>% w/v</b>	<b>CAS #</b>
Cypermethrin	20 %	[52315-07-8]
<b>Inert ingredient:</b>		
Emulsifier	8%	--
Solvent	Up to 100%	--

**HAZARDOUS IDENTIFICATION:**

Physical hazards: Combustible liquid  
Health hazards: irritant (eye, skin sensitization), Harmful (oral). Toxic (inhalation).



## FIRST-AID MEASURES:

**INHALATION:** First aid is not generally required. If in doubt, contact a doctor.

**EYE CONTACT:** Flush the contaminated eye with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**SKIN CONTACT:** Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until the product removed. Under running water, remove contaminated clothing, shoes and lather goods and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

**INGESTION:** If swallowed, do NOT induce vomiting. Wash mouth with water and call a doctor.

## FIRE-FIGHTING MEASURES: -

**Fire and explosion Hazards:** This product is classified as C1 combustible product. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water steam on hot liquids. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.

**Fire fighting:** If significant quantity of this product is involved in a fire, call the fire brigade.

**Flash Point:** >46 °C

**Upper Flammability Limit:** No data

**Lower Flammability Limit:** No data

**Autoignition temperature:** No data

**Flammability Class:** C1

## ACCIDENTAL RELEASE:

In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise at a minimum,



protective goggles. If there is a significant chance that vapors or mists are likely to build up in the cleanup area, we recommended that you use a respirator. Usually, no respirator is necessary when using this product.

### **PERSONAL PROTECTION/SAFTETY:**

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the environment remains clean and that vapor and mists are minimized.

**Eye Protection:** Protective glasses or goggles should be worn. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and preferably, apron. Make sure that all skin areas are covered.

**Protective material types:** We suggest that protective clothing be made from the following: rubber, PVC.

**Respirator:** Usually, no respirator is necessary when using this product.

### **HANDLING AND STORAGE:**

**Handling:** Keep exposure to this product to minimum, and minimize the quantities kept in work areas. Avoid contact or contamination of product with incompatible material listed.

**Storage:** Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

### **TOXICOLOGICAL INFORMATION:**

**Acute Toxicity:** Cypermethrin is a harmful material by dermal absorption or ingestion. The oral LD<sub>50</sub> for cypermethrin in rats is 250 mg/kg (in corn oil) or 4123 mg/kg (in water). The oral LD<sub>50</sub> varies from 367 to 2000 mg/kg in female rates, 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 material tested. The dermal LD<sub>50</sub> in rats is 1600 mg/kg and in rabbits is greater than 2000 mg/kg.

**Chronic Toxicity:** Not available.

**Reproductive effects:** No adverse effects on reproduction were observed in a three-generation study with rats given doses of 37.5 mg/kg/day, the highest dose tested.



**Fate in human 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. Studies in rats have shown that cypermethrin is rapidly metabolized by hydroxylation and cleavage, with over 99% being eliminated within hours. The remaining 1% becomes stored in body fat. This portion is eliminated slowly, with half life of 18 days for the cis-isomer and 3.4 days for the trans-isomer.

### **ECOLOGICAL INFORMATION: -**

**Effects on birds:** Cypermethrin is practically non-toxic to birds. No adverse reproductive effects occurred in mallards or bobwhite quail given 50 ppm, the highest dose tested.

**Effect on aquatic organisms:** Cypermethrin is very highly toxic to fish and aquatic invertebrates. Cypermethrin is metabolized and eliminated significantly more slowly by fish than by mammals or birds, which may explain this compound's higher toxicity in fish compared to other organisms. The half-lives for elimination of several pyrethroids by trout are all greater than 48 hours, while elimination half-lives in birds and mammals range from 6 to 12 hours.

Elimination of half of the accumulated amount of the compound took nearly eight days.

**Effect on other organisms:** Cypermethrin is highly toxic to bees.

### **Environmental Fate:**

**Breakdown in soil and groundwater:** Cypermethrin has a moderate persistence in soil. Under laboratory conditions, cypermethrin degrades more rapidly on sandy clay and sandy loam soils than on clay soils, and more rapidly in soils low in organic material. In aerobic conditions, its soil half-life is 4 days to 8 weeks. Cypermethrin is not soluble in water and has a strong tendency to adsorb to soil particles. It is therefore unlikely to cause groundwater contamination.

### **DISPOSAL CONSIDERATIONS:**

**Disposal:** There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws in operation in their area. The product label will give general advice regarding disposal of small quantities, and how to clean containers.

