



## MATERIAL SAFETY DATA SHEET

### Manufacturer/information service:

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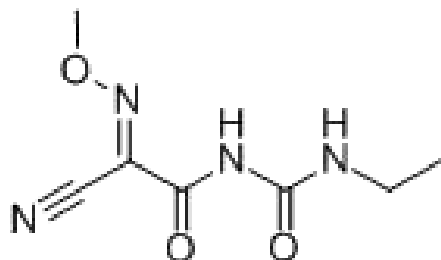
### 1. Chemical Product Identification

Product Name: Cymoxanil 98% Technical

Molecular Formula:  $C_7H_{10}N_4O_3$

Molecular Weight: 198.18

Structural Formula:



Chemical Name: 1-[(EZ)-2-cyano-2-methoxyiminoacetyl]-3-ethylurea

Form: Solid

Color: Pink powder

Odor: Odorless

### 2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Cymoxanil	57966-95-7	98.0
Balance		2.0



### **3. Hazards Identification**

Harmful by inhalation and if swallowed. May cause sensitization by skin contact. Danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### **4. First Aid Measures**

If poisoning occurs, immediately contact a doctor or Poisons Information Centre, and follow the advice given. Show this Material Safety Data Sheet to a doctor.

Swallowed: Seek medical advice immediately. Do not induce vomiting without medical advice. Give 2 glasses of water to drink. Never give anything by mouth to an unconscious person. Administration of gastric lavage or oxygen should be performed by qualified medical personnel.

Eye: Immediately flush the contaminated eyes with gently flowing lukewarm water for 15 to 20 minutes, occasionally lifting the upper and lower lids. If irritation persists, seek medical advice.

Skin: Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice. Persons who become sensitized may require specialized medical management with anti-inflammatory agents or cortisone containing emulsions.

Inhaled: Move the victim to fresh air or remove source of contamination. Monitor for respiratory distress. Keep person warm and at rest position. Treat symptomatically and supportively as and when required. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately if necessary.

Advice to physician: No specific antidotes are available. Treat supportively and symptomatically.

If a large amount has been ingested in the last few hours, and if copious vomiting has not already occurred, the stomach must be emptied and steps taken to limit gastrointestinal absorption. If the patient is fully alert and nervous system depression is not anticipated, oral administration of Syrup of Ipecac is probably the best way to empty the stomach

### **5. Fire-Fighting Measures**



**Fire Fighting Procedures:** Firefighters should wear full protective gear, including self-contained breathing apparatus. If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Whenever possible, contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water.

**Hazardous combustion products:** Thermal decomposition products may include carbon monoxide, carbon dioxide, nitrogen oxides, other pyrolysis products typical of burning organic material.

**Extinguishing Media:** Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock. Do not use direct jet of water. Avoid water coming in contact with the product. Contain water used for fire-fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

**Stability and Reactivity:** Stable under normal conditions of use. No dangerous reaction known under normal conditions of use. Avoid extreme heat and fire. Toxic thermal decomposition products may include carbon monoxide, carbon dioxide, nitrogen oxides, other pyrolysis products typical of burning organic material.

## **6. Accidental Release Measures**

**Personal Precautions:** Do not breathe in dust or fumes. Avoid contact with skin and eyes. For personal protection see Section 8 and see section 4 regarding First Aid Measures when exposed to material during clean-up operations.

**Procedures for dealing with release or spill:** Remove all sources of flames and sparks. For dry spills, shovel up and sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a labelled, clean, dry container and cover for subsequent disposal and store in a safe place to await proper disposal. All contaminated cleaning materials should be placed in closable receptacles. In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Do not contaminate water while cleaning equipment or disposing of wastes. Keep spectators away and upwind.

## **7. Handling and Storage**

**Handling:** Wear appropriate protective equipment when handling the product. Do not handle



material near food, feed or drinking water. Avoid contact with eyes, prolonged contact with skin, and inhalation of dust and vapour. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. Use with adequate ventilation to control dust and reduce exposure to vapours. Protect all equipment from explosions.

Storage: Store in original container only in a well-ventilated, cool, dry, secure area. Protect from heat, sparks and flame. Do not expose sealed containers to temperatures above 40 °C and prevent product from freezing. Keep separate from other products to prevent cross contamination. Rotate stock. Clean up spilled material immediately.

## **8. Exposure Controls/Personal Protection**

Exposure standards: No occupational exposure standards have been established for the product or its ingredients.

Engineering controls: This product is intended for use outdoors where engineering controls are not necessary. If necessary, ensure work areas have ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV. Warehouses, production area, parking lots and waste holding facilities must have adequate containment to prevent environmental contamination. Provide separate shower and eating facilities.

Personal Protective Equipment:

Eyes: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin: Where contact is likely, wear chemical-resistant gloves (such as nitrile or butyl), coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Respiratory: A respirator is not normally required when handling this substance.

## **9. Physical and Chemical Properties**

Appearance: Pink powder

Melting point: 160~161 °C (a.i.)

Density: approx. 1.32 g/cm<sup>3</sup> at 20 °C

Water solubility: 890mg/kg in water (pH=5, 20 °C).

Other solubility: In hexane 0.037, toluene 5.29, acetonitrile 57, ethyl acetate 28, n-octanol



1.43, methanol 22.9, acetone 62.4, dichloromethane 133.0 (all in g/l, 20°C).

Vapour pressure: 0.15mPa (20°C)

Flash point: 100°C.

## **10. Stability and Reactivity**

Materials to avoid Acids

Hazardous Decomposition Products: carbon monoxide, carbon dioxide, nitrogen oxides, other pyrolysis products typical of burning organic material.

Hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.

## **11. Toxicological Information**

Acute oral LD50 (rat): 760 a.i. mg/kg

Acute dermal LD50(rat): >2000 a.i. mg/kg

Acute Inhalation LC50(rat): > 5.6 a.i. mg/L air - 4 hours

Skin irritation: Non-Irritating (Rabbit)

Eye irritation: Non-Irritating (Rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

## **12. Ecological And Ecotoxicological Information**

Effect on birds: Acute oral LD50 (8 d) for Bobwhite quail is >2945 mg/kg.

Effect on fish: Acute LC50 (96 h) for Bluegill sunfish is 29 mg/l.

Effects on aquatic invertebrates: Acute EC50 (48 h) for Daphnia magna is 27 mg/l.

Effects on algae: Acute 72 hour EC50 for Anabaena flos-aquae is 0.254 mg/l.

Effects on bees: Contact acute 48 hour LD50 is >100 µg/bee, oral acute 48 hour LD50 is >85.3 µg/bee.

Effects on earthworms: Acute 14 day LC50 is >1000 mg/kg.

## **13. Disposal Considerations**

In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.



**14. Transport information**

UN No.: 3077

Hazard class: 9

Packing group: III

**15. Regulatory Information**

Not applicable

**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 presented 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 produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.