

SAFETY DATA SHEET

Preparation Date Jan. 8, 2016

Revision Date Jan. 8, 2016

1. Identification of the Substance/Preparation and of the Company

Product identifier

Product Description: MCC 3-Way Fungicide

US EPA Registration number 87845-8

Recommended use of the chemical and restrictions on use

Recommended use Agricultural fungicide

Uses advised against Use contrary to label directions

Supplier of this Safety Data Sheet

Agromarketing Company, Inc.

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Toronto ON CANADA 416-628-1616

EMERGENCY PHONE NUMBER (CHEMTREC) 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

(OSHA Hazard Communication Standard (29 CFR 1910.1200))

Acute toxicity oral	Category 4 H303
Acute toxicity - Dermal	Category 4 H313
Dermal irritancy	Category 3 H316
Eye irritancy	Category 2B H315
May cause allergic skin reaction	Category 1 H317
Possible human carcinogen (mancozeb)	Category 2
Suspected reproductive toxicant (mancozeb)	Category 2

Environmental Hazards

Toxic to aquatic organisms Category Acute 2

Label elements

CAUTION

Hazard Pictograms:



Hazard statements

Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Precautionary Statements - Prevention

Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Applicators and other handlers must wear

- long-sleeved shirt
- long pants
- shoes and socks
- chemical-resistant gloves made of any waterproof material. Some materials that are chemical-resistant to this product are nitrile rubber, natural rubber, or butyl rubber.
- For aerial application of MCC 3-WAY FUNGICIDE to lettuce (head and leaf), occupational handlers performing mixing / loading operations must wear a particulate respirator with an N, R, P or HE filter NIOSH approval prefix TC-84A.

Precautionary Statements - Response

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a Poison Control Center or doctor for treatment advice.

IF SWALLOWED:

- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

If medical advice is needed, have container and /or booklet label at hand.

Precautionary Statements - Storage

Store out of reach of children and domestic animals

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. Composition / information on ingredients

Chemical Name	% w/w	CAS No.	Trade secret
copper oxychloride	29 %	1332-40-7	N
mancozeb	12 %	8018-01-7	N
cymoxanil	4%	57966-95-7	N
lingnosulfonate dispersant	3%	8061-52-7	N
kaolin clay	50%	1332-58-7	N

4. FIRST AID MEASURES

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
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IF SWALLOWED:

- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
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IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

If medical advice is needed, have container and /or booklet label at hand.

5. FIRE FIGHTING MEASURES

Non-flammable product

EXTINGUISHING MEDIA: For surrounding fires, any fire extinguishing media (water, foam, dry chemical, CO₂) may be used based on other products that might be present.

Decomposition Products

Carbon dioxide, carbon monoxide, nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:

Large spill: Dyke around spill as necessary. If wet, absorb product with a clay-based absorbent. Remove dry product, absorbent and contaminated soil for disposal in accordance with applicable local regulations.

Small spill: Remove contaminated soil and place in containers for disposal in accordance with applicable local regulations.

Avoid contamination of water bodies during cleanup and disposal. Personal protective equipment is **not** needed to cleanup land spills.

SPILLAGE ONTO HARD SURFACES: Limit area of spillage by barricading if necessary. Absorb product with a clay-based absorbent.

Sweep up or vacuum, and place product into containers for disposal in accordance with applicable local regulations. Clean surface with water.

SPILLAGE INTO WATER: Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the copper, mancozeb, and cymoxanil values to a negligible level.

IN ALL CASES

Wear protective equipment as needed (see section 8).

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Copper oxychloride:

TLV Inhalable = 1 mg / m³; Alveolar = 0.1 mg /m³, Short term = 4 mg /m³

ENGINEERING CONTROLS: Enclosed Cockpits: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)].

Mechanical Flagging Engineering Controls: Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

PERSONAL PROTECTION:

Personal protective equipment

Eye/Face Protection Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields. If splashes are likely to occur, wear goggles.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before reuse. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid (granules)
Appearance:	Pale green
Odor:	Musty
Density:	350 - 450 g/L
Vapor Pressure (mm/Hg):	Negligible @ 20°C
Solubility in Water:	disperses, does not dissolve
Melting Point:	Not applicable
pH @ 20°C:	7.5 @ 1% suspension

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (Conditions to avoid): Stable under normal conditions. Avoid extreme heat (>120°F)

INCOMPATIBILITY: Strong acids, strong oxidizing agents, galvanized metal.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, nitrogen oxides

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

The following information is available for the formulation:

INGESTION:	Oral LD ₅₀ (rat)	>2000 mg/kg
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DERMAL:	Dermal LD ₅₀ (rat)	>2000 mg/kg
INHALATION:	Inhalation LC50 (rat)	> 0.5 mg / L
SENSITIZATION:	Skin sensitization (LLNA)	weak sensitizer
IRRITATION:	Primary eye irritation (rat) Primary skin irritation (rat)	moderate reversible irritation mild iritant

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA

General: MCC 3-Way Fungicide toxic to aquatic organisms.

Environmental fate: Copper is not biodegraded in soil and is moderately mobile.

Aquatic toxicity (96 hr LC50 copper)

Fish: 0.1 mg/L
 Daphnia >1 mg/L

Bird toxicity (dietary chronic copper)

5.05 mg/Kg

Bee Toxicity Contact LD50 > 100 mg / bee

13. DISPOSAL CONSIDERATIONS

Product

Excess product may be disposed of by agricultural use according to label instructions.
 Keep out of drains, sewers, ditches and water ways.
 Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.
 Follow all local/regional/national/international regulations.

Contaminated packaging Refer to product label.

14. TRANSPORTATION INFORMATION

DOT / TDG When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper oxychloride, mancozeb, cymaoxanil)

UN Number 3077

Class 9, PG III

Classification for SEA transport (IMO-IMDG): Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, N.O.S.(Glyphosate)

UN number

UN 3082

Class

9

Packing group

III

Marine pollutant

copper oxychloride

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Consult IMO regulations before transporting ocean bulk

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION
Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.
Keep out of Reach of Children. Harmful if inhaled or absorbed through skin. Harmful if swallowed. May irritate eyes, nose, throat and skin.

OSHA/Cal OSHA: This SDS document meets the requirements of both OSHA (29 CFR 1910.1200 and Cal OSHA (Title 8 CCR 5194 (g)) hazard communication standards. Refer to Sections 2 and 8 for regulatory exposure limits.

CHEMICAL INVENTORY LISTING: Copper oxychloride, mancozeb and cymoxanil appear on several chemical inventory lists (including the EPA TSCA inventory, Canadian DSL, European EINECS, Japanese MITI, Australian and Korean lists) under the CAS No. 99129-21-2

SARA TITLE III DATA

Sections 311 & 312 Hazard Categories

Health Hazard: Immediate, Delayed Health Effects

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: mancozeb CAS 8018-01-7, ethylene thiourea (trace) CAS 96-45-7

CERCLA/EHS Reportable Quantities (RQ):

Ethylene thiourea CAS 96-45-7 **RQ** 10 lb **Amount in product** <0.1%
mancozeb CAS 8018-01-7 75% **RQ** 5000 lb **Amount in product** <13 %

STATE REGULATIONS:

CALIFORNIA (Proposition 65): This product contains trace levels of a component known to the State of California to cause cancer, birth defects, or reproductive harm: ethylene thiourea (CAS 96-45-7). This product contains a substance known to the State of California to cause cancer, mancozeb (CAS 8018-01-7)

STATE RIGHT-TO-KNOW, ethylene thiourea: Massachusetts, New Jersey, Pennsylvania, Illinois

CANADA:

Hazardous Products Act Information: CPR Compliance

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Hazardous Products Act Information: WHMIS Classification

This product is exempt under WHMIS.

National Fire Code of Canada

Not applicable

Canadian Domestic Substances List (DSL) (DSL)

This product contains chemical substance(s) exempt from CEPA DSL Inventory requirements. The components are regulated as pesticides subject to Pest Control Products Act (PCPA) requirements.

16. OTHER INFORMATION

SDS Status:

Date of this Revision: Jan. 11, 2016

Date of Previous Revision: NA

Person Responsible for Preparation: Don O'Shaughnessy, Ph.D., DABT, President DOC Inc.

Reasons for Revision: Newly registered product

DISCLAIMER:

This information is provided for the limited guidance to the user. While Agromarketing Company, Inc. believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

ABBREVIATIONS:

a.i.	-	Active ingredient
ACGIH	-	American Conference of Governmental Industrial Hygienists
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
NTP	-	National Toxicology Program
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act
DOT	-	Department of Transportation
IMDG	-	International Maritime Dangerous Goods
IATA	-	International Air Transport Association

This is the last page of this SDS. There should be 7 pages.