Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: CYMOXANIL 60G/KG+MANCOZEB 700G/KG WP

Fungicide

Section 2 - Composition, Information on Ingredients

Chemical Name CAS-No. Classification Concentration [%

Mancozeb 8018-01-7 R43 70%

Cymoxanil 57966-95-7 Xn; R22 R43,N; R50 -R53 6%

Inert ingredients - - up to 100

Section 3 - Hazards Identification

Irritating to eyes and respiratory system.

May cause sensitization by inhalation and skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Section 4 - First Aid Measures

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.

Skin contact : Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact : Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.

Ingestion: Do not induce vomiting without medical advice. Obtain medical attention. If victim is conscious: Rinse mouth with water. Drink 1 or 2 glasses of water.

Section 5 - Fire Fighting Measures

Suitable extinguishing media: Water spray, Dry chemical, Foam, Carbon dioxide (CO2), Extinguishing media which shall not be used for safety reasons: High volume water jet, (contamination risk),

Specific hazards during fire fighting : Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO2) nitrogen oxides

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers / tanks with water spray.

Section 6 - Accidental Release Measures

Personal precautions : Avoid dust formation. Avoid breathing dust. Use personal protective equipment.

Evacuate personnel to safe areas. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

Methods for cleaning up : Clean-up methods - small spillage Sweep up or vacuum up spillage and collect in suitable container for disposal.

Section 7 - Handling and Storage

Handling

Advice on safe handling : Use only clean equipment. Do not breathe dust or spray mist. Avoid contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed. Wear personal protective equipment. For personal protection see section 8.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition. During processing, dust may form explosive mixture in air.

Storage

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

Advice on common storage : No special restrictions on storage with other products. Do not store near acids.

Other data: Stable under recommended storage conditions.

Section 8 - Exposure Controls, Personal Protection

Personal Protective Equipment: Will irritate the eyes and skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water.

When opening the container and preparing spray wear:

- cotton overalls buttoned to the neck and wrist and a washable hat,
- elbow-length PVC gloves and
- goggles

When using (except aerial spraying) the prepared spray, wear • cotton overalls buttoned to the neck and wrist and a washable hat and

• elbow-length PVC gloves.

Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

Section 9 - Physical and Chemical Properties

Form: wettable powder,

Colour : yellow, Odour : none,

pH: 6-9

Melting point/range: no data available

Flash point: not applicable

Flammability (solid, gas): Does not sustain combustion. Thermal decomposition: Decomposes before melting.,

Explosive properties: Not explosive

Section 10 - Stability and Reactivity

Conditions to avoid: To avoid thermal decomposition, do not overheat. Decomposes slowly on exposure to water. Under severe dusting conditions, this material may form explosive mixtures in air.

Materials to avoid : Incompatible with acids.

Hazardous decomposition products : Sulphur compounds

Hazardous reactions : No dangerous reaction known under conditions of normal use. No decomposition if stored and applied as directed.

Section 11 - Toxicological Information

Acute oral toxicity : LD50/ rat: > 2 000 mg/kgMethod: OECD Test Guideline 401 (Data on the

product itself) Information source: Internal study report

Acute inhalation toxicity: LC50/4 h / rat: > 5,4 mg/l Method: OECD Test Guideline 403

(Data on the product itself) Information source: Internal study report

Acute dermal toxicity : LD50/ rat > 2 000 mg/kg Method: OECD Test Guideline 402

(Data on the product itself) Information source: Internal study report

Skin irritation: rabbit

Eye irritation: rabbit

Result: No skin irritation Method: OECD Test Guideline 404 (Data on the product itself) Information

source: Internal study report

Result: Irritating to eyes. Method: OECD Test Guideline 405 (Data on the product itself) Information

source: Internal study report

Sensitisation: Maximisation Test (GPMT) guinea pig Result: Causes sensitization. Method: OECD Test Guideline 406 May cause sensitization by inhalation and skin contact. (Data on the product itself) Information source: Internal study report

Mutagenicity assessment

Mancozeb

Evidence suggests this substance does not cause genetic damage in animals.

• Cymoxanil

Did not show mutagenic effects in animal experiments., Evidence suggests this substance does not cause genetic damage in cultured mammalian cells., Evidence suggests this substance does not cause genetic damage in cultured bacterial cells.

Carcinogenicity assessment

- Mancozeb: An increased incidence of tumours was observed in laboratory animals.
- Cymoxanil Did not show carcinogenic effects in animal experiments.

Toxicity to reproduction assessment

• Mancozeb: Animal testing showed no reproductive toxicity.

- Cymoxanil Animal testing did not show any effects on fertility.
- : Did not cause genetic damage in cultured bacterial cells., Evidence suggests this substance does not cause genetic damage in cultured mammalian cells.,

Section 12 - Ecological Information

Elimination information (persistence and degradability)

Biodegradability: Not readily biodegradable. Estimation based on data obtained on active

ingredient.

Bioaccumulation: This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Ecotoxicity effects Toxicity to fish : flow-through test LC50/ 96 h/ Oncorhynchus mykiss (rainbow trout) :: 0,46 mg/l Method: OECD Test Guideline 203 (Data on the product itself) Information source: Internal study report

Toxicity to algae : / ErC50/ 72 h/ Pseudokirchneriella subcapitata (green algae): 0,3 mg/l Method: OECD Test Guideline 201 (Data on the product itself) Information source: Internal study report / EbC50/ 72 h/ Pseudokirchneriella subcapitata (green algae): 0,029 mg/l Method: OECD Test Guideline 201 (Data on the product itself) Information source: Internal study report Toxicity to daphnia: flow-through test / EC50/ 48 h/ Daphnia magna (Water flea): 0,71 mg/l Method: OECD Test Guideline 202 (Data on the product itself) Information source: Internal study report

Section 13 - Disposal Considerations

Product: In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Do not re-use empty containers.

Section 14 - Transport Information

ADR Class: 9

Packaging group: III
Classification Code: M7

HI No:: 90

UN-Number: 3077 Labelling No.: 9

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Cymoxanil, Mancozeb)

IMDG Class: 9

Packaging group: III UN-Number: 3077 Labelling No.: 9

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Mancozeb, Mancozeb)

Marine pollutant: Marine pollutant.

Section 15 - Regulatory Information Labelling according to EC Directives

Symbol(s): Xn Harmful

N Dangerous for the environment Hazardous components: Mancozeb

Cymoxanil

R-phrase(s): R36/37 Irritating to eyes and respiratory system.

R42/43 May cause sensitization by inhalation and skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s): S 2 Keep out of reach of children.

S13 Keep away from food, drink and animal feeding stuffs.

S20/21 When using do not eat, drink or smoke.

S22 Do not breathe dust.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.

S35 This material and its container must be disposed of in a safe way.

S57 Use appropriate container to avoid environmental contamination.

Section 16 - Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.