

This SDS adheres to the standards and regulatory requirements of Great Britain and may not meet regulatory requirements in other countries.

-- SAFETY DATA SHEET --

REF. 000003415/N/GB

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PRINT DATE 2000-10-21

AGRICULTURAL PRODUCTS DEPARTMENT

REVISION DATE: 1998-11-12

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: TRUSTAN* WDG MAFF 05050

Supplier: Du Pont (U.K.) Limited Emergency telephone number: (02871) 861.313

Wedgwood Way
Stevenage, Herts. SG1 4QN / Great Britain
Tel: 01438 734000

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name of the substance: dithiocarbamate based fungicide

Hazardous components	Classification	Weight %	CAS-No	EC-No.
Mancozeb (a.i.)	Xi; R 37-43	56.0	8018-01-7	
Oxadixyl (a.i.)	Xn; R22	8.0	77732-09-3	
Cymoxanil (a.i.)	Xn; R 22	3.2	57966-95-7	261-043-0

Chemical nature of the preparation:

Mancozeb; Manganese ethylenebisdithiocarbamate polymeric complex with zinc salt
Oxadixyl; 2-Methoxy-N-(2-oxo-1,3-oxazolidin-3-yl)-acet-2',6'-xylylidide
Cymoxanil; 1-(2-Cyano-2-methoxyiminoacetyl)-3-ethylurea

3. HAZARDS IDENTIFICATION

Most important hazards: Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

Specific hazards: None known.

4. FIRST AID MEASURES

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

Skin contact: Wash off immediately with soap and plenty of water. Take off all contaminated clothing immediately. Consult a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

Ingestion: Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician for severe cases.

Notes to physician: For specialist advice physicians should contact the National Poisons Information Service, (24-hr), London, Tel: 020-7635-9191 or Birmingham, Tel: 0121-507-5588.

* DuPont's registered trademark

(a.i.) = (active ingredient)

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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: foam, carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons: water spray.

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

Specific methods: (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 spray water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.

Environmental precautions: Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Clean up promptly by scoop or vacuum. Shovel into suitable container for disposal. Use approved industrial vacuum cleaner for removal.

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions: Provide appropriate exhaust ventilation at places where dust is formed.
Safe handling advice: Keep away from heat and sources of ignition. Use personal protective equipment.

Storage

Technical measures/Storage conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures below 40 °C. Store in a place accessible by authorized persons only.

Incompatible products: Incompatible with acids.

Packaging material: No materials to be specially mentioned.

Further information: Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ensure adequate ventilation, especially in confined areas.

Control parameters:

Mancozeb; DuPont's acceptable exposure limit: AEL(8-h TWA, total dust) = 2 mg/m3; AEL(12-h TWA, total dust) = 1.5 mg/m3; DuPont(1999)

Cymoxanil; DuPont's acceptable exposure limit: AEL(8-h and 12-h TWA) = 2 mg/m3; DuPont(1999)

Personal protective equipment

Respiratory protection: respirator with P2 filter.

Eye protection: goggles or face-shield.

Hand protection: Neoprene gloves.

Skin and body protection: protective suit.

Hygiene measures: Wash hands before breaks and immediately after handling the product. Avoid contact with skin. Do not breathe dust or spray mist. Keep away from food, drink and animal feeding stuffs. When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Dispose of rinse water in accordance with local and national regulations.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: solid (water dispersible granules)

Colour: white

Odour: none

pH: (20 °C) (at 10 g/l H ₂ O)	6
Flash point:	Not applicable
Autoignition temperature:	360 °C
Explosive properties:	no data available
Bulk density:	600 kg/m ³
Solubility	
Water solubility:	dispersible

10. STABILITY AND REACTIVITY

Stability: No decomposition if stored and applied as directed.

Conditions to avoid: Decomposes slowly on exposure to water. Avoid temperatures above 40 °C. Keep away from heat and sources of ignition.

Materials to avoid: acids.

Hazardous decomposition products: hydrogen sulphide, carbon disulphide, carbon oxides, nitrogen oxides, sulphur oxides.

Further information: During processing, dust may form explosive mixture in air. Decomposition by contact with water may generate vapours which can be ignited by heat or open flame.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

LD₅₀/oral/rat = > 2000 mg/kg

LD₅₀/dermal/rat = > 2000 mg/kg

LC₅₀/inhalation/4h/rat = > 16.4 mg/l

Local effects: Irritating to eyes, respiratory system and skin.

Sensitization: May cause sensitisation by skin contact.

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12. ECOLOGICAL INFORMATION

Ecotoxicity effects:

Mancozeb

Toxicity to fish and other aquatic fauna:
LC50/ 48 h/ Rainbow trout = 2.2 mg/l
LC50/96h/bluegill sunfish = 1.63 mg/l
EC50/48h/daphnia = 1.3 mg/l

Toxicity to algae:
EC50/72h/algae = 0.43 mg/l

Toxicity to birds:
LC50/ 10 days/ Mallard duck = > 6400 ppm
LC50/ 10 days/ Japanese quail = > 3200 ppm

Oxadixyl

Toxicity to fish and other aquatic fauna:
LC50/96h/rainbow trout = > 320 mg/l
LC50/96h/bluegill sunfish = 360 mg/l
EC50/48h/daphnia = 530 mg/l

Toxicity to algae:
EC50/72h/algae = 45.7 mg/l

Toxicity to birds:
LC50/8 days/mallard duck = > 5620 mg/l

Bioaccumulation:
log POW = 0.65 - 0.79

Cymoxanil

Toxicity to fish and other aquatic fauna:
LC50/96h/rainbow trout = 61 mg/l
LC50/96h/bluegill sunfish = 29 mg/l
EC50/48h/daphnia = 27 mg/l

Toxicity to algae:
EC50/72h/algae = 0.35 mg/l

Toxicity to birds:
LC50/8 days/mallard duck = > 2250 mg/l
LC50/8 days/bobwhite quail = > 2250 mg/l

Bioaccumulation:
log POW = 0.66 (pH7)

Further information: Harmful to fish.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: As in Code of Practice under FEPA 1985. Do not allow material to contaminate ground water system. Do not contaminate surface water.

Contaminated packaging: Do not re-use empty containers Do not contaminate ponds, waterways or ditches with chemical or used container.

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14. TRANSPORT INFORMATION UN-No: 3077

ADR/RID

Class: 9 Item: 12(c) TREM-CARD: 90 G 02 B
ADR/RID-Labels: 9 HI-No: 90 SI-No: 3077
Packaging group: III
Proper shipping name: 3077 Environmentally hazardous substance, solid, n.o.s. (contains mancozeb) 9, 12(c), ADR

IMO:

Class 9 UN 3077 Packing group: III
IMDG Page 9029 MFAG: 506 EmS: -
IMO-Labels: 9, MARINE POLLUTANT mark
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (contains mancozeb)

ICAO: not regulated

15. REGULATORY INFORMATION

According to Part III of the Food and Environment Protection Act 1985 and the Control of Pesticides Regulations 1986, the product has to be classified and labelled as follows:

Contains: Mancozeb, Oxadixyl, Cymoxanil
Symbol(s): Xi - Irritant
R-phrases: R36/37/38 - Irritating to eyes, respiratory system and skin.
R43 - May cause sensitization by skin contact.
S-phrases: S2 - 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.
S24 - Avoid contact with the skin.
S36/37 - Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

Recommended use: Agricultural Fungicide

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.