

Preparation Date 22-Nov-2011

Revision Date 09-Sep-2016

Revision Number:2

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

### Product Identifier

**Product Description** Mancozeb 75DF

### Other means of Identification

**Synonyms** Manzate 75DF Fungicide  
Manzate 200DF Fungicide  
Manzate Evolution  
Manzate 75WG  
Manzate DF  
Manzate 200WG  
Innova Mancozeb 750  
Manzate GRDA  
Dithane DG 75  
Dithane 75 DF Rainshield  
M70 DF

**UN-No** UN 3077

### Recommended use of the chemical and restriction on use

**Recommended use** Fungicide  
**Uses advised against** Activities contrary to label recommendations

### Details of the Supplier of the Safety Data Sheet

#### **Supplier Address**

**UPL Limited**  
Uniphos House, Madhu Park,  
Khar (W), Mumbai, India  
Tel: +91-(022)- 2646-8000

**E-mail address** info.in@uniphos.com

### Emergency Telephone Number

**Company Phone Number** +91-(022)- 2646-8000  
**Emergency telephone number** +91-(022)-2646-8000 (Office Hours 9:00 A.M - 5.00 P.M.)

## 2. Hazard Identification

### Classification

**Preparation Date** 22-Nov-2011**Revision Date** 09-Sep-2016**Revision Number:**2Reproductive Toxicity  
Acute aquatic toxicity  
Chronic aquatic toxicityCategory 2- (H361)  
Category 1 - (H400)  
Category 1 - (H401)**Label elements****Signal word****Warning****Hazard Statements****H361d** - Suspected of damaging fertility or unborn child**H400** - Very toxic to aquatic life**H410** - Very toxic to aquatic life with long lasting effects**Precautionary Statements****Prevention****P201** Obtain special instruction before use.**P280** Do not handle until all safety precautions have been read and understood**P273** Avoid release to the environment.**Response****P308+P313** IF exposed or concerned : Get medical advice/attention**P391** Collect spillage.**Storage****P405** Store locked up**Prevention****P501** Dispose of contents/container to an approved waste disposal plant.**Other Information**

No other Hazards known

**3. Composition/information on Ingredients**

<b>Chemical name</b>	<b>CAS-No</b>	<b>Weight %</b>
Mancozeb	8018-01-7	75

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

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## 4. First aid measures

### First-aid measures

<b>Eye contact</b>	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce vomiting unless told by physician. If vomiting occurs ensure patient can breathe. Get medical attention.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

### Most Important Symptoms and Effects, Both Acute and Delayed

**Most Important Symptoms and Effects** The most important known symptoms and effects are described in labeling see section (2) and/or in section 11.

### Indication of immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically and supportively.

## 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** Dry chemical, CO<sub>2</sub>, Water spray or regular foam

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire

### Special hazards arising from the substance or mixture

**Special Hazard** Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.  
Hazardous decomposition products formed under fire conditions:  
Carbon disulphide  
Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen sulphide  
Carbon oxides

### Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit. Use standard firefighting procedures and consider the hazards of involved material.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### Personal Precautions

Avoid contact with skin and eyes. Avoid dust formation. Remove all sources of ignition. Provide adequate ventilation. Wash thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection

#### Environmental precautions

Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

### Methods and material for containment and cleaning up

#### Methods for Clean-Up

Avoid dust formation. Take up mechanically and collect in suitable container for disposal. Remove all ignition sources.

### Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## 7. Handling and Storage

### Precautions for safe handling

#### Handling

Avoid dust formation. Avoid contact with skin and eyes. Provide adequate ventilation. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep out of reach of children.

### Conditions for safe storage, including any incompatibilities

#### Storage

Store locked up. Keep in a dry, cool and well-ventilated place. Keep out of the reach of children.

#### incompatible materials

Alkaline, Strong acids, Strong oxidizing agents, Quaternary ammonium salts, Sequestering agents

## 8. Exposure Controls/Personal Protection

### Exposure guidelines

Apply technical measures to comply with the occupational exposure limits

Chemical name	Eu	United Kingdom	France	Spain	Germany
Mancozeb			5 mg/m <sup>3</sup>		

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**Engineering controls**

Ensure adequate ventilation, especially in confined areas. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Personal protective equipment**

**Eye/Face Protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

**Skin/Hand protection**

Long-sleeved clothing. Preventative skin protection is recommended. Wear suitable protective glove/clothing. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Environmental exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Local authorities should be advised if significant spillage cannot be contained.

**General hygiene considerations**

Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

## 9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

<b>Appearance</b>	Greyish-yellow, Free flowing microgranules
<b>Physical state</b>	solid
<b>Odor</b>	Woody
<b>Color</b>	Greyish-yellow
<b>odor threshold</b>	No information available.

<b><u>Property</u></b>	<b><u>VALUES</u></b>	<b><u>Remarks/ Method</u></b>
<b>pH</b>	6.5-7.5	CIPAC MT 75 (1% aq)
<b>Melting point/freezing point</b>	No information available	Decomposes without melting.
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point</b>	Not applicable	
<b>flammability (solid, gas)</b>	Not highly flammable	CE A.10
<b>Upper/lower flammability or</b>	No information available	
<b>Specific gravity/Density</b>	0.65 kg/l	Pour density / Tap density 0.62 kg/l / 0.68 kg/l
<b>Vapor density</b>	No information available	
<b>Vapor pressure</b>	<5.6 x 10 <sup>-7</sup> hPa (25 °C)	
<b>Water solubility</b>	Negligible	
<b>Solubility in Other Solvents</b>	No information available	
<b>Partition coefficient: n-octanol/water</b>	No information available	
<b>Autoignition temperature</b>	156°C	CE A.16

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No information available

**Viscosity, kinematics**

No information available

**Dynamic viscosity**

No information available

**Oxidizing properties**

The substance or mixture is not classified as oxidizing.

**Explosive properties**

According to the chemical structure no explosion reaction is expected

## 10. Stability and Reactivity

### Reactivity

None under normal use

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reaction

None under normal processing.

### Conditions to avoid

Do not store near strong acids  
Keep away from children  
Keep away from heat and sources of ignition  
Avoid dust formation

### Incompatible Materials

Alkaline  
Strong acids  
Strong oxidizing agents  
Quaternary ammonium salts  
Sequestering agents

### Hazardous decomposition products

Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Oxides of sulfur  
Carbon disulphide  
Hydrogen sulphide  
Ethylenethiourea

## 11. Toxicological Information

### Information on Toxicological Effects

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LD50 Oral = > 2000 mg/kg

LD50 Dermal = > 2000 mg/kg

LC50 Inhalation= 3.13 mg/L (maximum breathing zone concentration - No mortality)

## Local effect

**Inhalation** May be harmful if inhaled.  
**Eye contact** No eye irritation  
**Skin contact** No skin irritation  
**Ingestion** May be harmful if swallowed.

## Chronic toxicity

**Skin Corrosion/Irritation** No skin irritation  
**Eye damage/irritation sensitization** No eye irritation  
**Mutagenic effects** Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.  
**Carcinogenic effects** Based on available data, the classification criteria are not met.  
**Reproductive effects** There are no known carcinogenic chemicals in this product.  
**STOT - Single Exposure** Suspected of damaging fertility or unborn child.  
**STOT - repeated exposure** Based on available data, the classification criteria are not met.  
**Aspiration hazard** Based on available data, the classification criteria are not met.

## 12. Ecological Information

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

EC50/72h/algae = 7.76 ug/l (Chlorella vulgaris)

LC50/48h/daphnia = 0.18 mg/l

LC50/fish/96 h = 8.90 mg/l (Poecilia reticulata)

### Persistence and Degradability

No information available.

### Bioaccumulative Potential

Does not bioaccumulate

Chemical name	Log Pow
Mancozeb	1.38

### Other Adverse Effects

No information available.

## 13. Disposal Considerations

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### Waste Treatment Methods

**Waste Disposal Method** Dispose of in accordance with all applicable federal, state, and local laws and regulations.

**Contaminated packaging** Discharge, treatment, or disposal may be subject to national, state, or local laws

## 14. Transport Information

### ADR/RID

14.1 UN-No	UN 3077
14.2 Proper Shipping name	Environmentally hazardous substance, solid, n.o.s. (Mancozeb)
14.3 Hazard class	9
14.4 Packing group	III
14.6 Environmental Hazard	Yes

### IMDG/IMO

14.1 UN-No	UN 3077
14.2 Proper Shipping name	Environmentally hazardous substance, solid, n.o.s. (Mancozeb)
14.3 Hazard class	9
14.4 Packing group	III
14.5 EMS-No	F-A,S-F
14.6 Environmental Hazard	Marine Pollutant

### IATA/ICAO

14.1 UN-No	UN 3077
14.2 Proper Shipping name	Environmentally hazardous substance, solid, n.o.s. (Mancozeb)
14.3 Hazard class	9
14.4 Packing group	III
14.6 Environmental Hazard	Yes

## 15. Regulatory Information

### International Inventories

USINV	Complies
DSL/NDSL	Complies
EINECS/ ELINCS	Complies
ENCS	Complies
China	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
TSCA	Complies

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TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List



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<b>Revision Summary</b>	Update to GHS format

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**End of Safety Data Sheet**