

Preparation Date 21-Sep-2016

Revision Date 29-Aug-2016

Revision Number:01

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product Identifier****Product Description** Azoxystrobin 50 + Mancozeb 700 g/kg WG**Other means of Identification****UN-No** UN3077**Recommended use of the chemical and restriction on use****Recommended use** Fungicide**Uses advised against** Activities contrary to label recommendation**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- (02645) 226011 to 226015**2. Hazard Identification****Classification**Reproductive toxicity Category 2 - (H361d)
Aquatic Acute Hazard Category 2 - (H401)
Aquatic Chronic Hazard Category 2 - (H411)**Label elements****Signal word****Warning****Hazard Statements****H361** - Suspected of damaging the unborn child.
H401 - Toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.**Precautionary Statements**

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Prevention

P201 Obtain special instruction before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

Chemical name	CAS-No	Weight %
Mancozeb	8018-01-7	70
Azoxystrobin	131860-33-8	5

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

4. First aid measures

First-aid measures

Eye contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.
Skin contact	Remove contaminated clothing and shoes immediately, then wash with plenty of water. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned. If skin irritation or rash develops, get medical attention.
Ingestion	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.
Inhalation	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 the labelling (See section 2) and/or in section 11.

Indication of immediate medical attention and special treatment needed

Notes to physician Treat symptomatically and supportively.

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5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media** CO₂, Dry chemical. Water spray or fog.**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 toxic gases and vapor.**Hazardous combustion products** Carbon disulphide, Carbon oxides, Nitrogen Oxides(NO_x), Sulphur Oxides, Hydrogen sulphide**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.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures****Personal Precautions** Do not breath dust/mist. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Use personal protective equipment.**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. Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbant such as clay, sand or soil. Local authorities should be advised if significant spillages cannot be contained.**Methods and material for containment and cleaning up****Methods for Clean-Up** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).**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** KEEP OUT OF REACH OF CHILDREN. Wear suitable personal Protective Equipment when handling and spraying. Avoid contact with skin and eyes. Avoid breathing dust/mist. Ensure adequate ventilation. While using do not eat drink or smoke. Wash thoroughly after handling. Empty containers may contain hazardous residues. Handle in accordance with good industrial and safety practice.**Conditions for safe storage, including any incompatibilities****Storage** Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Store locked up. Do not store material near food, feed or drinking water.

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Incompatible materials

Oxidizing agents, acids, polar solvent such as alcohol

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

Apply technical measures to comply with the occupational exposure limit.

Chemical name	Qubec	France
Mancozeb	5mg/m ³	5 mg/m ³

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**

Avoid contact with eyes. Where there is potential for eye contact have eye flushing equipment available. Use eye protection to avoid eye contact.

Skin/Hand protection

Wear impervious protective clothing, including boots, gloves, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

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

Environmental exposure controls

Local authorities should be advised if significant spillages 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**

Appearance	Greyish yellow granules
Physical state	Granules
Odor	non-characteristic
Color	Greyish yellow
Odor threshold	No information available

Property**VALUES****Remarks/ Method**

pH	7.02 at 21°C	
Melting point/freezing point	No information available	
Boiling Point/Range	Not applicable	
Flash Point	No information available	
flammability (solid, gas)	Non-flammable	
Upper/lower flammability or	Non-explosive	
Explosive limit	No information available	
Bulk Density	0.7115 g/ml	
Vapor density	No information available	
Vapor pressure	No information available	
Water solubility	Dispersible	
Solubility in Other Solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
decomposition temperature	No information available	
Viscosity	Not applicable	
Surface tension	44.86 mN/m	

10. Stability and Reactivity

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Reactivity

Stable under normal temperatures and pressures.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reaction

None under normal processing.

Conditions to avoid

Avoid dust information. Incompatible material, Excessive heat and open flame.

Incompatible Materials

Oxidizing agents, acids, polar solvent such as alcohol

Hazardous decomposition products

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:

Oxides of Carbon

Oxides of Nitrogen

Oxides of sulphur

Hydrogen Sulphide

11. Toxicological Information

Information on Toxicological Effects

LD50 Oral: >5000 mg/kg

LD50 Dermal: >2000 mg/kg

LC50 Inhalation: 5.218 mg/l (Maximum breathing zone concentration - No mortality)

Local effect

Inhalation	May be harmful if inhaled
Eye contact	Causes mild eye irritation.
Skin contact	Causes mild skin irritation.
Ingestion	May be harmful if swallowed

Chronic toxicity

Skin Corrosion/Irritation	Causes mild skin irritation.
Eye damage/irritation	Causes slight eye irritation.
Sensitization	No additional information available.
Mutagenic effects	No additional information available.
Carcinogenic effects	No additional information available.
Reproductive effects	Suspected of damaging the unborn child
STOT - Single Exposure	No additional information available.
STOT - repeated exposure	No additional information available.

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Aspiration hazard No additional information available.

12. Ecological Information

Ecotoxicity

Toxic to aquatic life with long lasting effect.

LC50/96hr/Fish= 2.47 mg/l (Cyprinus Carpio)

EC50/48hr/Daphnia Magna = 2.02 mg/l

ErC50/72hr/Algae = 6.72 mg/l (Pseudokirchneriella Subcapitata)

Persistence and Degradability

No information available.

Bioaccumulative Potential

No information available.

Other Adverse Effects

No information available.

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method Dispose of in accordance with applicable Federal, State, local laws and regulations**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal. Do not re-use the container. Dispose of empty containers in a sanitary landfill or incineration so as to avoid environmental or water pollution.

14. Transport Information

IMDG/IMO

UN-No	UN 3077
Proper Shipping name	Environmentally hazardous substance, solid, n.o.s. (Mancozeb, Azoxystrobin)
Hazard class	9
Packing group	III
EMS No.	F-A,S-F
Marine pollutant	Yes

IATA/ICAO

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

15. Regulatory Information

International Inventories

TSCA	Complies
EINECS	Complies
ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies



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ENCS	Complies
IENCS	Complies
AICS	Complies
KECL	Complies

Legend

- :- Not Listed, Not determined

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

16. Other Information

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Revision Summary	Update to GHS Format

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End of Safety Data Sheet