

MATERIAL SAFETY DATA SHEET

PRODUCT : Azoxystrobin 23% SC

PRODUCT DESIGNATION : Fungicide

Section 1. Product & Company Identification

Common Name : Azoxystrobin
Grade : Formulation
Active Ingredient : Azoxystrobin
Chemical Name of Active Ingredient (IUPAC) : methyl(E)-2-[2-[6-(2-cyanophenoxy)pyrimidin-4-yl]oxyphenyl]-3-methoxyprop-2-enoate
Chemical Family of A. I. : aryloxy pyrimidine
Molecular Formula of A. I. : C₂₂H₁₇N₃O₅
Molecular Mass of A. I. : 403.4 g/mol
Manufacturer & Supplier : **M/s United Chemicals**
Head office: B-371, 1st Floor, Meera Bagh, New Delhi,
Factory: 15/1, 15/2, 15/3, Industrial Estate, Vidisha, (M.P)
Telephone Number : +91-11-25258770

Section 2. Composition / Information on Ingredients

Name of Components	Concentration% w/w
Azoxystrobin a.i.	23.00% w/w
Inert ingredient	77.00% w/w
TOTAL	100.00% w/w

Section 3. Hazards Identification

Health Hazards:

Very toxic to aquatic life with long lasting effects.

Precautionart statements:

Keep out of reach of children.

Dispose of contents / container to an approved waste disposal plant.

Section 4. First Aid Measures

If in Eyes : Flush immediately with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

If in Skin : Wash thoroughly with soap and water. Remove contaminated clothing and shoes and launder.

If Inhaled : Remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If Swallowed : Offer a glass of water or milk to drink. Call a physician or poison control center. Do not induce vomiting unless directed.

Antidote: There is no specific antidote. Treat symptomatically.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

Section 7. Handling & Storage

Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

Section 8. Exposure Control, Personal Protection

Occupational Exposure Controls:

Ventilation: Provide local exhaust ventilation system.

Eye protection: Employee must wear splash-proof or dust-resistant safety goggles to prevent eye contact with this substance.

Emergency eye wash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain within the immediate work area for emergency use.

Clothing: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

Gloves:

Employee must wear appropriate protective gloves to prevent contact with this substance.

Section 9. Physical and Chemical Properties

Appearance / state	: Off white, smooth creamy liquid
Colour	: Off white
Odour	: Odourless
Flammability:	: Non flammable
Density	: 1.09
Ph	: 7-8
Solubility	: Emulsifies in water

Section 10. Stability & Reactivity

Reactivity: No hazardous reactions are expected because the product is stable under recommended storage conditions

Chemical stability: Stable under standard conditions.

Possibility of hazardous reactions: Under the specifies conditions, hazardous reactions that lead to excessive temperature or pressure are not expected.

Section 11. Toxicological Information

Acute Oral Toxicity : LD₅₀ for rats : >2000mg/kg

Acute Dermal Toxicity : LD₅₀ for rats : >2000 mg /kg

Acute Inhalation : LC₅₀ (4h) rats : >6.32 mg/l

Eye Irritation : Irritating to Eyes

Skin Irritant : mild irritatant

Skin sensitization : sensitizer

Section 12. Ecological Information

Birds Acute oral LD₅₀ for Bobwhite Quail >2000 mg/kg

Fish LC₅₀ (96h) for Rainbow trout 1.76 mg/l

Daphnia magna LC₅₀ 0.83 mg/l

Bee LD₅₀ (oral and contact): >25µg/bee

Section 13. Disposal Consideration

Waste from residues/unused products : disposal should be in accordance wit applicable regional, national and local laws and regulations.

Contaminated packaging : improper disposal or reuse of this container may be dangerous and illegal

Other information : waste codes should be assigned by the user based on the application for which the product was used.

Section 14. Transport Information

IMDG Classification

Shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S. (Azoxystrobin)

Class : 9
Packing group : III
UN number : 3082
Marine pollutant : Yes

Section 15. Regulatory Information

Hazard statements

H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

P102: Keep out of reach of children

P270: Do not eat, drink or smoke when using this product.

P264: Wash your hands thoroughly after handling.

P280: Wear protective gloves and personal protective equipment for eyes.

P501: Dispose of contents / container according to the national legislation.

P405: Store locked up.

Section 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Safety Division : UNITED CHEMICALS, SAFETY DIVISION