



## MATERIAL SAFETY DATA SHEET

### **RIDOXYL<sup>®</sup> 240EC**

ASTRA INDUSTRIAL COMPLEX CO., LTD. (ASTRACHEM)  
P.O. BOX 30447, AL-KHOBAR 31952  
KINGDOM OF SAUDI ARABIA

#### 1. PRODUCT IDENTIFICATION

**Product Name:** **RIDOXYL<sup>®</sup> 240EC**

**Chemical Class:** Phenylamide: acylalanine

**Use:** Ridoxyl 240 EC is used to control diseases caused by air- and soil-borne *Peronosporales* on a wide range of crops.

**Producer:** **Astra Industrial Complex Co., Ltd.**  
P.O. Box 30447, Al-Khobar 31952  
Kingdom of Saudi Arabia  
Emergency Tel # (+966) 3 8121 406

#### 2. COMPOSITION / INFORMATION INGREDIENTS

Substance	Proportions (% w/w)	Chemical structure
<b>Metalaxyl-M Technical</b> <b>CAS No.</b> 70630-17-0 <b>Chemical Name:</b> methyl <i>N</i> -(methoxyacetyl)- <i>N</i> -(2,6-xylyl)- <i>D</i> -alaninate; methyl ( <i>R</i> )-2-[[[2,6-dimethylphenyl) methoxyacetyl] amino]propionate (IUPAC) <b>EC hazard</b> (Xn; R22, R41)	24.91 (240 12 g/L)	
Blend of anionic and nonionic Surfactants	6.94	
Organic Solvent	68.16	



### 3. HAZARD IDENTIFICATION

#### **Symptoms of Acute Exposure**

May cause eye irritation

#### **Hazardous Decomposition Products:**

Can decompose at high temperature forming toxic gases

#### **Unusual fire, Explosion and Reactivity Hazards:**

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### 4. FIRST AID MEASURES

**Have the product container, label or Material Safety Data Sheet with you when you calling a Poison control center or doctor, or going for treatment.**

#### **Ingestion:**

If swallowed, call a Poison control center or a Doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless to do so by a Poison Control center or Doctor. Do not give anything by mouth to an unconscious person.

#### **Eye:**

If in eyes, 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.

#### **Skin:**

Wash affected area with plenty of soap and water for 15 – 20 minutes. Remove contaminated clothing. Launder contaminated clothing separately. Get medical attention.

#### **Inhalation:**

Move person to fresh air. If person is not breathing give artificial respiration, preferably mouth to mouth if possible. Call a Poison control center or doctor for further treatment advice.

#### **Note to Physician:**

There is no specific antidote if this product is ingested. Treat symptomatically.

#### **Medical conditions likely to be aggravated by Exposure:**

None known



## 5. FIRE FIGHTING MEASURES

### Fire and Explosion:

Flash point :	>40 C
Flammable Limits (% in Air):	Not Available
Auto ignition Temperature:	Not Available
Flammability:	Combustible Liquid

### Unusual Fire, Explosion and Reactivity Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

### In case of Fire:

Use dry, chemical, foam or CO<sub>2</sub> extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

## 6. ACCIDENTAL RELEASE MEASURES

### In Case of Spills or Leak:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in protective equipment section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

## 7. HANDLING AND STORAGE

Store the product in a well-ventilated, secure area out of reach of children and domestic animals. Do not use or store near heat or open flame. Do not store food, beverages, tobacco or feed in storage area. Prevent eating, drinking, smoking and cosmetic application in areas where there is a potential exposure to the product. Wash thoroughly with soap and water after handling.



## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The following Recommendations for Exposure Controls/ Personal Protection are intended for the manufacture, formulation, packaging and use of this product.

For commercial applications and or on farm applications consult the product label.

### **Ingestion:**

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

### **Eye Contact:**

Where eye contact is likely use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### **Skin Contact:**

Where contact is likely, wear chemical resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant headgear.

### **Inhalation:**

Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below exposure limits. A NIOSH-certified combination air-purifying respirator with an N, P or R 95 or HE class filter and an organic vapor cartridge may be permissible under certain circumstances where air borne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

### **Engineering Control Statements:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural Pesticides [40 CFR 170.240 d(d)(4-6)], the handler requirements may be reduced or modified as specified in the WPS.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

Assay:	<b>Metalaxyl - M 240</b> 12 g/L
Appearance:	Clear Yellow Liquid free of visible impurities.
Odour:	Sweet Wax
Density:	0.9392 – 1.0592 Kg/L
Flash Point:	>40°C
Water contents:	<5.0 g/Kg
Acidity as H <sub>2</sub> SO <sub>4</sub> :	<5.0 g/Kg

## 10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Condition to avoid:	None known.
Materials to avoid:	None known.

### Hazardous Decomposition products:

Can decompose at high temperatures forming toxic gases..

## 11. TOXICOLOGICAL INFORMATION

### Toxicology Data:

#### Formulation:

<b>Ingestion:</b>	Slightly Toxic
Acute Oral LD <sub>50</sub> (rat):	2,300 mg/kg body weight
<b>Dermal:</b>	Slightly Toxic
Acute Dermal LD <sub>50</sub> (rabbit) :	>4,000 mg/Kg body weight
<b>Inhalation:</b>	Practically Non Toxic
Acute Inhalation (4 h rat):	>5.0 mg/l air.
Eye Irritation:	Moderately Irritating (Rabbit)
Skin Irritation:	Slightly irritating (Rabbit)
Skin Sensitization:	Not a Sensitizer (Guinea Pig)

### Chronic/Sub chronic Toxicity Studies:

Metalaxyl-M: Liver effects at high dose levels.



## 12. ECOLOGICAL INFORMATION

### Summary of Effects:

Metalaxyl-M: Practically non-toxic to aquatic organisms and wildlife.

### Eco-Acute Toxicity: (Technical)

Bees:	LC <sub>50</sub> / EC <sub>50</sub> . > 25 µg/bee
Invertebrates (Water Flea):	LC <sub>50</sub> /EC <sub>50</sub> . > 113 ppm
Fish (Trout):	LC <sub>50</sub> /EC <sub>50</sub> . > 121 ppm
Birds (8-d dietary–bobwhite quail):	LC <sub>50</sub> /EC <sub>50</sub> . 5,620 ppm

### Environmental Fate:

#### Metalaxyl-M:

No data available for the formulation. The information presented here is for the active ingredient. A through review of environmental information is not possible in this document.

Does not bioaccumulate: No persistent in soil or water. moderate mobility in soil. Mixes / sinks (after 24 h).

### Environmental Hazards;

For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Apply only as specified on this label. Do not apply when whether conditions favor drift from treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

This chemical is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.



### 13. DISPOSAL CONSIDERATION

Pesticide wastes are toxic. Do not reuse product containers. Dispose of product containers, waste containers and residues according to local health and environmental regulations.

Characteristic Waste: Not applicable

Listed Waste: Not applicable

### 14. TRANSPORT INFORMATION

<b>UN. No:</b>	<b>UN 2902</b>		
<b>Proper Shipping name:</b>	<b>Pesticide</b> , liquid, toxic, N.O.S (Metalaxyl-M)		
<b>Class:</b>	<b>6.1</b>		
<b>Classification Code:</b>	<b>T6</b>		
<b>Packing group:</b>	<b>III</b>		
<b>Subsidiary Risks:</b>	<b>6.1</b>		
<b>Special provisions:</b>	<b>61</b>		
<b>Limited quantities:</b>	<b>LQ19</b>		
<b>Packaging:</b>	Packing instructions	P001 IBC03 LP01	
		R001	
	Special packing provisions	-	
	Mixed Packaging Provisions	MP15	
	Instructions	T7	
<b>UN Portable tanks:</b>	Special Provisions	TP2 TP28	
	Tank Code	L4BH	
<b>ADR Tank:</b>	Special Provision	TU15 TE1 TE15 TE19	
	Vehicle for tank carriage	AT	
	Transport Category	2	
<b>Special provision carriage:</b>	Packages	-	
	Bulk	-	
	Loading, unloading	& CV13 CV28	
	Handling		
	Operation	S9	
<b>Hazard Identification</b>	<b>60</b>		



## 15. REGULATORY INFORMATION.

### EPCRA SARA Title III Classification

Section 311/312 hazard Classes:

Acute Health hazard  
Chronic Health Hazard  
Fire Hazard

Section 313 Toxic Chemicals: Not Applicable.

CERCLA/ SARA 302 Reportable Quantity (RQ): None

RCRA Hazardous Waste Classification (40 CFR 261) Not Applicable

TSCA Status: Exempt from TSCA, Subject to FIFRA

## 16. OTHER INFORMATION

**Ridoxyl**<sup>®</sup> 240EC should be transported its original labeled, tightly closed container. Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions.