



## MATERIAL SAFETY DATA SHEET

### **TRANSACT<sup>®</sup> 18EC**

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

#### 1. PRODUCT IDENTIFICATION

**Product Name:** **TRANSACT 18EC**

**Chemical Class:** Avermectin (Acaricide / Insecticide)

**Use:** Transact 18EC is used as an acaricide / insecticide for the control of Mites, Leafminers, Pear Psylla, Leafhoppers, Fire ants and others on several agricultural 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 ON INGREDIENTS

Substance	Proportions (% w/w)	Chemical structure
<b>Abamectin</b> CAS No. 71751-41-2 <b>Chemical Name:</b> (10 <i>E</i> ,14 <i>E</i> ,16 <i>E</i> ,22 <i>Z</i> )-(1 <i>R</i> ,4 <i>S</i> ,5' <i>S</i> ,6 <i>S</i> ,6' <i>R</i> ,8 <i>R</i> ,12 <i>S</i> ,13 <i>S</i> ,20 <i>R</i> ,21 <i>R</i> ,24 <i>S</i> )-6'-[( <i>S</i> )- <i>sec</i> -butyl]-21,24-dihydroxy-5',11,13,22-tetramethyl-2-oxo-3,7,19-trioxatetracyclo[15.6.1.1 <sup>4,8</sup> .0 <sup>20,24</sup> ]pentacosa-10,14,16,22-tetraene-6-spiro-2'-(5',6'-dihydro-2' <i>H</i> -pyran)-12-yl 2,6-dideoxy-4- <i>O</i> -(2,6-dideoxy-3- <i>O</i> -methyl- $\alpha$ - <i>L</i> -arabino-hexopyranosyl)-3- <i>O</i> -methyl- $\alpha$ - <i>L</i> -arabino-hexopyranoside (i) mixture with (10 <i>E</i> ,14 <i>E</i> ,16 <i>E</i> ,22 <i>Z</i> )-(1 <i>R</i> ,4 <i>S</i> ,5' <i>S</i> ,6 <i>S</i> ,6' <i>R</i> ,8 <i>R</i> ,12 <i>S</i> ,13 <i>S</i> ,20 <i>R</i> ,21 <i>R</i> ,24 <i>S</i> )-21,24-dihydroxy-6'-isopropyl-5',11,13,22-tetramethyl-2-oxo-3,7,19-trioxatetracyclo[15.6.1.1 <sup>4,8</sup> .0 <sup>20,24</sup> ]pentacosa-10,14,16,22-tetraene-6-spiro-2'-(5',6'-dihydro-2' <i>H</i> -pyran)-12-yl 2,6-dideoxy-4- <i>O</i> -(2,6-dideoxy-3- <i>O</i> -methyl- $\alpha$ - <i>L</i> -arabino-hexopyranosyl)-3- <i>O</i> -methyl- $\alpha$ - <i>L</i> -arabino-hexopyranoside (ii) (4:1)	1.86 (18 ± 2.5 g/L)	<p>(i) R = -CH<sub>2</sub>CH<sub>3</sub> (avermectin B<sub>1a</sub>)  (ii) R = -CH<sub>3</sub> (avermectin B<sub>1b</sub>)</p>
<b>Blend of anionic and nonionic emulsifiers</b>	10.37	
<b>Antioxidant</b>	1.04	
<b>Organic solvents</b>	86.67	



### 3. HAZARD IDENTIFICATION

#### **Signs of Poisoning:**

As observed in laboratory animals include pupil dilation vomiting, convulsions, tremor and coma.

#### **Primary Routes of Entry:**

Ingestion, skin and eye contact.

#### **Effects of single overexposures;**

##### **Skin Absorption**

May cause Sensitization

##### **Inhalation**

May cause irritation of eyes, nose and throat

##### **Eyes**

May cause moderate eye irritation

### 4. FIRST AID MEASURES

#### **Emergency and First aid Procedures**

##### **Swallowing:**

Do not induce vomiting. If the victim is fully conscious give large quantity of water to drink. Call a physician or poison control center.

##### **Skin:**

Wash affected area with plenty of soap and water. Remove contaminated clothing. Launder contaminated clothing separately. Get medical attention.

##### **Inhalation:**

Remove victim to fresh air. If not breathing administers artificial respiration. Avoid unprotected mouth to mouth resuscitation. GET MEDICAL ATTENTION.

##### **Eye**

Hold eyelids open and flush with a steady stream of water for at least 15 minutes. GET MEDICAL ATTENTION.



## 5. FIRE FIGHTING MEASURES

### Fire and Explosion:

Flash point >60°C

### Flammable limits in air:

Not determined.

### Auto ignition Temperature:

Not determined.

### Extinguishing Media:

Use carbon dioxide or dry chemical for small fires and water fog or foam (alcohol, polymer or ordinary) for large fires.

### Unusual fire and explosion hazards:

Noxious fumes may be emitted under fire conditions.

### Special fire fighting procedures:

Fire fighters should use self-contained breathing apparatus and full turnout gear. Prevent runoff of fire - water. Avoid exposure to smoke.

## 6. ACCIDENTAL RELEASE MEASURES

### Steps to be taken if material is released or spilled:

Dike the area using absorbent materials such as sand or clay. Recover and contain as much product as possible using absorbent. Clean spill area using a solution of water and detergent. Collect and contain wash water and all contaminated absorbent for disposal. If spilled on the ground, the affected area should be excavated to a depth of 1-2 inches. Prevent the spilled product or washing from reaching public sewers or waterways. Wear appropriate protective equipment during the cleanup. Ensure that tools and equipment are adequately decontaminated.

### Waste disposal method:

Dispose of in accordance with local regulations.

### Container disposal:

Dispose of in an approved facility according to local regulations.



## 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 or feed in storage area. Prevent eating, drinking or smoking in areas where there is a potential exposure to the product. Wash hands before eating, drinking or smoking after using the product.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Protective equipment should be used during the following procedures:**

- Manufacture, formulation or application of this product.
- Repair and maintenance of contaminated equipment
- Clear up of leaks and spills.
- Any other activity that may result in hazardous exposures.

### **Respiratory Protection:**

Use NIOSH / MSHA approved respirator for organic vapors. Use positive pressure contained breathing apparatus where emergency conditions or where exposure limits are exceeded.

### **Ventilation:**

Exhaust appropriate for removal of vapors.

### **Protective clothing:**

Chemical resistant gloves, coveralls, apron and foot coverings.

### **Eye Protection:**

Safety goggles or face shield.

### **User safety recommendations:**

Safety showers and eye wash should be easily accessible.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Assay	Abamectin 18 ± 2.7 g/L
Appearance	Clear yellow Liquid free of visible impurities
Odour	Mild
Density	0.970 ± 0.006 Kg/L
Flash Point	>60°C
Acidity as H <sub>2</sub> SO <sub>4</sub>	< 5.0 g/Kg
Water contents	<10.0 g/Kg



10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Condition to avoid:	Excessive heat.
Materials to avoid:	Strong oxidizers, acids, and alkalis.

**Hazardous decomposition products:**

Not known.

11. TOXICOLOGICAL INFORMATION

**Toxicology Data (Abamectin tech.):**

Acute Oral LD <sub>50</sub> (rat)	10 mg/kg
Acute Dermal LD <sub>50</sub> (rabbit)	>2000 mg/Kg
Eye Irritation (rabbit)	Mild irritant
Dermal sensitization	Sensitizer for Guinea Pig

**Mutagenicity**

Non-mutagenic in the Ames test.

**Reproductive effect**

It may have potential to cause reproductive effect at high doses.

**Carcinogenicity**

Not carcinogenic in rats and mice.

**Teratogenicity**

Not likely to cause teratogenic effects except at doses to the mother

12. ECOLOGICAL INFORMATION

- Non-toxic to birds
- Highly toxic to fish and aquatic invertebrates.
- Highly toxic to bees.

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.



14. TRANSPORT INFORMATION

<b>UN. No:</b>	<b>UN 2902</b>				
<b>Proper Shipping name:</b>	<b>Pesticide, liquid, toxic, N.O.S (Abamectin)</b>				
<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 & Handling	CV13	CV28		
	Operation	S9			
<b>Hazard Identification</b>	<b>60</b>				

15. REGULATORY INFORMATION.

SARA Title III classification  
Section 311/312

16. OTHER INFORMATION

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