



## TECHNICAL DATA BULLETIN

### PRODUCT TECHNICAL INFORMATION AND APPLICATIONS

## **SNAP<sup>®</sup> 230SC**

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

### 1. PRODUCT IDENTIFICATION

<b>Product Name:</b>	<b>SNAP 230SC</b>	
<b>Chemical Class:</b>	Pyrethroid Insecticide	
<b>Active Ingredients:</b>	PERMETHRIN	11%
	TETRAMETHRIN	1%
	PIPERONYL BUTOXIDE	11%

**Use:** **SNAP 230SC** is used for the control of a wide spectrum of Public Health Insect Pests. Mainly Flying insects such as Mosquitoes and flies.

### 2. INTRODUCTION:

**SNAP<sup>®</sup>230SC** is an effective combination of two synthetic pyrethroids with Piperonyl Butoxide (synergist). It contains Permethrin with its exceptional killing properties and Tetramethrin that has a rapid knockdown effect. Both pyrethroid ingredients synergised by Piperonyl Butoxide, which inactivate the detoxication system in the insect body.

**SNAP<sup>®</sup>230SC** is very effective in control of flying insects, such as mosquitoes and flies. It can be diluted with a carrier like C-Deck, Kerosene or Diesel at the rate of 1: 9 for ULV applications or 1: 99 for thermal fogging applications.

### 3. MODE OF ACTION:

**SNAP<sup>®</sup>230SC** is an effective, fast acting non-systemic insecticide with stomach and contact action. It has a rapid Knockdown and long residual activity with a moderately low mammalian toxicity formula.



#### 4. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, light yellow liquid free of visible impurities.
<b>Odour:</b>	Slightly aromatic
<b>Boiling point:</b>	Not available
<b>Melting point:</b>	Not applicable
<b>Vapor pressure:</b>	Not available
<b>Density:</b>	0.938-0.950 g / ml
<b>Flash point:</b>	> 40 °C
<b>Acidity as H<sub>2</sub> SO<sub>4</sub>:</b>	< 0.5 g/Kg
<b>Water Contents:</b>	< 2 gm / Kg
<b>Solubility in water:</b>	Emulsifiable

#### 5. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	Chemical Name (IUPAC)	Chemical structure	Contents (g / Liter)
<b>Permethrin</b> CAS No. 7696-12-0	3-phenoxybenzyl (1 <i>RS</i> ,3 <i>RS</i> ;1 <i>RS</i> ,3 <i>SR</i> )-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate <b>Roth:</b> 3-phenoxybenzyl (1 <i>RS</i> )- <i>cis-trans</i> -3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate		99.0 -121.0
<b>Tetramethrin</b> CAS No. 52645-53-1	cyclohex-1-ene-1,2-dicarboximidomethyl (1 <i>RS</i> ,3 <i>RS</i> ;1 <i>RS</i> ,3 <i>SR</i> )-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate <b>Alt:</b> cyclohex-1-ene-1,2-dicarboximidomethyl (±)- <i>cis-trans</i> -chrysanthemate <b>Roth:</b> cyclohex-1-ene-1,2-dicarboximidomethyl (1 <i>RS</i> )- <i>cis-trans</i> -2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate 3,4,5,6-tetrahydrophthalimidomethyl (±)- <i>cis-trans</i> -chrysanthemate		9.0 -11.0
<b>Piperonyl Butoxide</b> CAS No. 51-03-6	5-[2-(2-butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole; 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether		99.0 -121.0
<b>Organic solvents</b>			652.66
<b>Formulation aid</b>			50.02

#### 6. USES:

SNAP<sup>®</sup>230SC is used for the control of a wide spectrum of Public Health Insect Pests. Mainly Flying insects such as Mosquitoes and flies. SNAP<sup>®</sup>230SC is formulated in a safe way to man, animals and the environment if used as prescribed on the container label. Therefore, can be used in residential areas and animal place. SNAP<sup>®</sup>230SC is toxic to fish.



## 7. APPLICATIONS:

Pest	Dilution Rate	Application
<b>Flying Insects:</b> Flies and Mosquitoes	Dilute 1: 19	Residual Spray (Use 350 ml / 1000 m <sup>3</sup> )
	Dilute 1: 99 in carrier like C-Deck, Kerosene or Diesel.	Thermal Fogging (Use 0.5 liter solution / ha)
	Dilute 1: 9 in carrier like C-Deck, Kerosene or Diesel.	ULV application (Use 0.5 liter solution / ha)
<b>Crawling Insects:</b> Ants and Cockroaches	Dilute 1: 19	Residual Spray (Use 2.25 L / 1000 m <sup>3</sup> )

## 8. COMPATIBILITY:

SNAP<sup>®</sup>230SC is not recommended to be mixed with other pesticides.

## 9. HAZARD IDENTIFICATION

### ACUTE EFFECTS

#### Physical hazards:

None

#### Health hazards:

- Inhalation:** Vapour or spray mist may be harmful if inhaled
- Eye:** Mild irritating to the eyes
- Skin:** Prolonged or repeated skin contact may cause irritation or sensitization
- Ingestion:** May be harmful if swallowed.

## 10. HANDLING AND STORAGE

Keep out of Reach of Children:  
Use only in a well-ventilated area. Do not reuse empty containers. Keep the container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated, dry place away from heat and other sources of ignition. Keep from freezing.



## 11. FIRST AID MEASURES

### First Aid:

#### Swallowed:

Provided the patient is conscious, wash out mouth with water. Do not induce vomiting. Vomiting should only be induced under the direction of a physician. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus. Immediately transport victim to an emergency facility.

#### Eye:

Irrigate for 15 minutes with copious quantities of water with eyelids held open. If irritation persists, seek medical attention immediately.

#### Skin:

Remove contaminated clothing. Flush skin with running water for a minimum of 20 minutes. If swelling, redness, blistering or irritation occurs seek medical attention immediately.

#### Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. If breathing is labored, give oxygen. Obtain immediate medical attention.

#### Advice to doctor:

This product contains materials that may cause severe pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed. Symptomatic treatment and supportive therapy as indicated.

## 12. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Standards:

For hydrocarbon solvent: 8 h, TWA, 150 mg/m<sup>3</sup>

### Engineering Controls:

Natural ventilation only required when handling the concentrate. A local exhaust should be used in confined areas to keep the level of solvent within acceptable limits.



### Personnel Protection:

Eye Protection:	Safety glasses or goggles
Clothing:	Long sleeved shirt and long pants, shoes plus socks
Gloves:	Chemical resistant gloves
Respirator:	All pesticide handlers must wear a respiratory protection device when working

### User Safety Recommendations:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

## 13. STABILITY AND REACTIVITY

**Stability:** Stable at room temperature.

**Incompatibility:** Strong oxidizing agents. Acids and alkaline materials

**Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Keep away from heat. Keep away from sources of ignition: No smoking.

**Hazardous Decomposition Products:** Thermal decomposition products are toxic and may include hydrocarbons ammonia, organic and acid halides, oxides of carbon, nitrogen and sulphur.

## 14. TOXICOLOGICAL INFORMATION

LD<sub>50</sub> Oral rat: >5,000 mg/Kg



## 15. ECOLOGICAL INFORMATION

Keep out of water supplies ground water or open water. This product is very toxic to aquatic organisms

Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

## 16. ACTIVE INGREDIENTS PROPERTIES

### Permethrin:

A broad-spectrum contact, non-systemic, synthetic pyrethroid insecticide effective against a wide range of insect pests of public health importance. Good residual activity, since sunlight does not break it down rapidly. With no fumigant activity. Has repellent activity. Fast action. May be applied by air as a ULV application in vegetable oil.

#### Environmental Guidelines:

HAZARDS: Fish, Bee: Highly toxic in laboratory tests; low in field tests. Bird: Practically nontoxic.

### Tetramethrin

A synthetic-pyrethrin derivative. Non-systemic insecticide with contact action. Gives rapid knock down. Normally used in combination with synergists (e.g., piperonyl butoxide) and other insecticides for control of flies, cockroaches, mosquitoes, wasps, and other insect pests in public health and home and garden use. Compatible with many other insecticides and synergists. Incompatible with mineral carriers such as kieselguhr, acidic clays and kaolin. Has essentially the same characteristics as allethrin or pyrethrum. Pyrethrum-like odor. Long storage ability. Processes fast knock down activity.

#### Environmental Guidelines:

In rats, around 95% of Tetramethrin (metabolised) is eliminated in the urine and faeces within 5 days

Do not use on food or feed crops. Toxic to fish. Toxic to bees.



### **Piperonyl Butoxide**

Action: Synergist.  
Use: Highly synergistic action on pyrethrins, allethrin, permethrin, tetramethrin, rotenone, and others when combined with these insecticides.

Environmental Guidelines  
HAZARDS: Fish, Bee: Nontoxic.

## 17. TRANSPORT INFORMATION

Proper Shipping Name:	Insecticide, Liquid; Toxic, Flammable
UN Number	3082
Class	6.1
Packing Group	III
Marine Pollutant	

## 18. REGULATORY INFORMATION.

Public Health Pest Control Product

## 19. OTHER INFORMATION

PRECAUTIONS: Toxic to fish. Toxic to bees.

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