



## MATERIAL SAFETY DATA SHEET SUPERA 40 EC

### IDENTIFICATION OF THE SUPPLIER:

AGRO CHEMICALS INDUSTRIES LTD  
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### PRODUCT IDENTIFICATION:

**Common Name:** Methidathion 40% w/v  
**Trade Name:** Supera 40 EC  
**Type of formulation :** Emulsifiable Concentrate (EC)  
**Chemical Name:** 0,0 -dimethyl-S-[5-methoxy-2-oxo- 1,3,4-thiadiazol -3 (2H)-yl-methyl]- dithiophosphate.  
**Chemical Formula:** C<sub>6</sub>H<sub>11</sub>N<sub>2</sub>O<sub>4</sub>PS<sub>3</sub>  
**Molecular Weight:** 302.3

### PRODUCT COMPOSITION:

<i>Active Ingredient:</i>	<i>% w/v</i>	<i>CAS #</i>
Methidathion	40 %	[950-37-8]
<i>Inert ingredient:</i>		
Emulsifier	11 %	--
Solvent	Up to 100%	--

### HAZARDS IDENTIFICATION:

#### Symptoms of Acute Exposure:

Symptoms of organophosphate poisoning include headache, dizziness, blurred vision, weakness, nausea, diarrhea, cramps, discomfort in the chest, nervousness, sweating, miosis (pinpoint pupils), tearing, salivation, uncontrollable muscle twitches, convulsions, coma, and loss of reflexes and sphincter control. If swallowed and aspirated into lungs, chemical pneumonia can occur. Supera 40 EC can cause irreversible eye injury.



### **Medical Conditions Likely to be Aggravated by Exposure:**

Exposure to cholinesterase inhibitors should be restricted in persons with hemolytic anemias or pre-existing depression of cholinesterase. Also individuals with pre-existing respiratory disorders should use extra care in handling this product.

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

Skin uptake is the main route of exposure. Inhalation of spray mist is a possible route of exposure.

### **Skin Absorption:**

May be cause irritation and facial skin sensations.

### **Inhalation:**

May be cause irritation to the respiratory system.

### **Eyes:**

May be cause eye irritation.

## **FIRST AID MEASURES:**

If poisoning is suspected, immediately contact a physician, or the nearest hospital, Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

**Ingestion:** If victim is fully conscious, give a large quantity of water to drink and induce vomiting. Never give anything by mouth to an unconscious person. Avoid contact with contaminated skin or clothing- wear rubber gloves.

**Inhalation:** Move victim from contaminated area to fresh air. Apply artificial respiration if necessary, preferably by mechanical means. Avoid mouth-to-mouth resuscitation.

**Eye Contact:** Immediately rinse eyes with a large amount of running water. Hold lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

**Skin Contact:** Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

### **Note to physician**

This product is an organophosphate (cholinesterase- inhibiting) insecticide. Atropine is antidotal and should be given I.V. in multiple doses as necessary until the patient is atropinized. In severe cases, 2-PAM may be given provided therapy begins within 24 hours of exposure. Monitor serum and RBC cholinesterase. Morphine, theophylline, aminophylline, phenothiazines, reserpine, furosemide or ethacrynic acid are contraindicated in organophosphate poisonings. Administer I.V. fluids cautiously if needed to correct dehydration. Induce emesis or lavage stomach.



## **FIRE FIGHTING MEASURES:**

**Flash point (test method) :** > 40 °C

**Flammable limits (% in air) :** N.A

**Autoignition Temperature:** > 982°F

**Flammability:** moderate.

**Appropriate Extinguishing media:**

Use dry chemical, foam (alcohol, polymer or ordinary) or Carbon dioxide (CO<sub>2</sub>) extinguishing media.

**Fire Fighting Guidance**

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.

## **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.

## **HANDLING AND STORAGE:**

Store the product in a well-ventilated, secure area out of reach of children and domestic animals. Do not 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.

## **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS.**

**Ingestion:** Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, drink, or feed in the storage area. Prevent eating, drinking, tobacco usage and cosmetic application in areas a



potential for exposure to the material. Always wash thoroughly after handling.

**Eye Contact:** To avoid eye contact, wear safety glasses with side shields or chemical goggles.

**Skin Contact:** To avoid skin contact, wear rubber boots, long-sleeved shirt, long pants and a head covering.

**Inhalation:** To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CFR Part 84.

Select P-100 type as appropriate for the air contaminants present. Filter efficiency will be 99.97% as appropriate for the size distribution of dusts present.

**Personnel Protection:**

The product is very dangerous, particularly the concentrate. It is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect.

**PHYSICAL AND CHEMICAL PROPERTIES:**

**Appearance :** Colorless- Light brown liquid.

**Odor :** characteristic odor.

**Density:** 1.04 g/ml

**Solubility in water:** Emulsion.

**Emulsion Stability:** Stable.

**STABILITY AND REACTIVITY:**

**Stability:** Rapidly hydrolysed in alkaline and strongly acidic media; DT<sub>50</sub> (25 °C) 30 minutes at PH<sub>13</sub>.

Relatively stable to hydrolysis in neutral & slightly acidic media.

**Hazardous:** Will not occur.

**Conditions to Avoid:** Excessive heat and direct sunlight.

**TOXICOLOGICAL INFORMATION:**

**Acute toxicity:**

Oral LD50 (Rat) 25-54mg/kg

Highly toxic

Dermal LD50 (Rat) 1546mg/kg

Slightly toxic

Inhalation (LC50) (Rat) 3.6 mg/kg

Moderately toxic

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Skin irritation (Rabbit) mild skin irritant  
Eye irritation (Rabbit) Non irritant  
But Corrosive on contact.

**Carcinogenicity:** non carcinogenic (Methidathion)

**Mutagenicity:** None observed. (Methidathion)

**Reproduction:** Impaired mating performance, decreased pup weights and viability at high doses (rats) .

**Teratogenic:** None observed.

## ECOLOGICAL INFORMATION:

### Aquatic toxicity

LC<sub>50</sub> (96h) for rainbow trout 0.01 mg/L

For bluegill sunfish 0.002 mg/L

**Bee toxicity:** Slightly toxic to bees.

**Effect on birds:** for mallard ducks 23.6-28 mg/kg

## DISPOSAL CONSIDERATION:

### Disposal:

Pesticide wastes are toxic, do not reuse product containers.

Dispose of product containers, waste containers, and residues according to local health and environmental regulations.

