

# SAFETY DATA SHEET

## METHAFOS 600 Organophosphate Insecticide

Date of Issue: 11<sup>th</sup> July 2018

### 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

<b>Chemical name of active ingredient(s):</b>	Methamidophos
<b>Chemical Family:</b>	Organophosphate
<b>Recommended use:</b>	Insecticide for insect control in various crops
<b>Supplier:</b>	Agrisource 2000 Limited 45 Kitchener Road Pukekohe Phone: 09 237 0422
<b>Emergency telephone number:</b>	0800 Poison (0800 764 766) 24 Hours

### 2. HAZARDS IDENTIFICATION

<b>Hazard Classifications:</b>	3.1D, 6.1B, 6.9A, 8.2C, 8.3A, 9.1A, 9.1D, 9.2B, 9.3A, 9.4A
<b>Required identification Details:</b>	3.1D: <b>WARNING</b> – combustible liquid. 6.1B: <b>TOXIC</b> – keep out of the reach of children. 6.9A: <b>TOXIC</b> – may cause target organ damage from repeated oral exposure at high doses. 8.2C: <b>CORROSIVE</b> – this product is corrosive to the skin and may cause burns. 8.3A: <b>CORROSIVE</b> – this product is corrosive and may cause eye damage. 9.1A: <b>VERY TOXIC</b> to aquatic organisms with long lasting effects. 9.1D: <b>Harmful</b> to aquatic organisms. 9.2B: <b>Toxic</b> to the soil environment. 9.3A: <b>Very toxic</b> to terrestrial vertebrates. 9.4A: <b>Very toxic</b> to terrestrial invertebrates.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
methamidophos	10265 - 92 -6	60%
hydrocarbons		>30%
Other ingredients		<10%

---

## 4. FIRST-AID MEASURES

**Description of necessary first aid measures:** In case of poisoning by any exposure route contact the National Poisons and Hazardous Chemicals Information Centre, PO Box 913, Dunedin. **Phone 0800 764 766, (0800 POISON).**

**Effects and symptoms:**

**Local:** eye contact may cause miosis and lacrimation.

**Systemic:** bradycardia, hypotension, salivation, bronchial secretion, nausea, vomiting, diarrhoea, sweating, muscle fibrillation, tics, myoclonus, paralysis of respiratory muscles, peripheral respiratory paralysis, somnolence, coma, respiratory depression and failure, hypothermia, convulsions. Repeated over-exposure may cause more severe cholinesterase inhibition with more pronounced signs and symptoms.

**First-aid measures**

**Inhalation:**

Wash out mouth with water. Keep patient at rest and seek **urgent** medical advice as above. **Transport patient to doctor or hospital quickly.** If advised by doctor or Poisons Centre, atropine tablets may be administered. **DO NOT** attempt to give anything by mouth to a semi-conscious or unconscious person.

**Ingestion:**

Wash out mouth with water. Keep patient at rest. Transport patient to doctor quickly. Give one atropine tablet every 5 minutes until dryness of the mouth occurs.

**Skin contact:**

Immediately remove contaminated clothing. Wash affected areas with soap and water. Seek urgent medical aid. Persons assisting the patient should protect themselves from contamination.

**Eye contact:**

If concentrate gets in the eyes, flush with running water for at least 15 minutes and obtain urgent medical aid.

---

## 5. FIRE-FIGHTING MEASURES

**HAZCHEM Code:**

2X

**Extinguishing media :**

Water spray, foam, dry chemical, Carbon dioxide, sand.

**Fire Hazard Properties:**

In a fire, hydrogen cyanide, carbon monoxide, phosphorous pentoxide, sulphur dioxide and nitrogen oxides may be formed.

**Protection of fire-fighters:**

Wear protective clothing and self contained breathing apparatus. Do not breathe smoke or gases.

---

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Avoid contact with skin and eyes. Do not inhale spray. Wear Full Personal Protective Equipment (**PPE**). Chemical resistant coveralls, chemical resistant gloves, chemical resistant footwear plus socks, chemical resistant headgear and chemical resistant eyewear. Respiratory protection equipment (**RPE**) appropriate to protect against respiratory

exposure to this substance in mist or vapour forms. Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing after work.

**Environmental precautions:**

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

**Methods for cleaning up:**

In the case of spillage, contain spilled material. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum or shovel waste into a drum. To decontaminate spill area, tools and equipment, wash with water. Dispose of drummed wastes in accordance with the requirements of Local Authorities

---

## 7. HANDLING AND STORAGE

**Handling:**

Avoid inhaling aerosols and vapors. Avoid contact with eyes and skin. Store work clothes and street clothes separately. Wash hand before breaks and at the end of work. Change contaminated protective clothing. Keep away from food, drinks and tobacco.

**Storage:**

Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed, seeds and foodstuffs. Keep out of reach of children. Store in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).

**Packaging materials:**

HDPE Plastic drum.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace Exposure Guidelines

**Workplace exposure standards:**

No exposure limit allocated.

**Exposure Standards outside:  
The workplace:**

No exposure standards have been set for this product or the active ingredients.

### Engineering measures

**Exposure control measures:**

Ensure ventilation is adequate, generally natural ventilation is adequate.

### Personal Protective Equipment (PPE)

**Detail specifications for equipment:**

**Respiratory system:**

Respiratory protection equipment (**RPE**) appropriate to protect against respiratory exposure to this substance in mist or vapour forms.

**Skin and body:**

Chemical resistant coveralls, chemical resistant footwear plus socks, chemical resistant headgear for overhead exposures.

**Hands:**

Chemical resistant gloves.

**Eyes:**

Chemical resistant eyewear.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid
<b>Colour:</b>	Slightly hazy straw coloured
<b>Odour:</b>	Slight characteristic odour, like rotten eggs
<b>pH:</b>	3.5
<b>Vapour Pressure:</b>	2.3 x 10 <sup>-5</sup> hPa at 20°C ( <i>methamidophos</i> )
<b>Vapour density:</b>	Not available
<b>Boiling Point:</b>	188°C
<b>Freezing/melting point:</b>	Not available
<b>Solubility:</b>	Miscible with water
<b>Specific gravity or density:</b>	Approx. 1.13-1.16 g/ml at 20° C
<b>Flashpoint:</b>	> 70° C
<b>Octanol/water partition coefficient:</b>	Log Pow = 0.80 at 20°C ( <i>methamidophos</i> )
<b>Explosion properties:</b>	Not an explosive
<b>Oxidation properties:</b>	Not an oxidizer

---

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of use.
<b>Conditions to avoid:</b>	Avoid sources of ignition and extreme heat.
<b>Materials to avoid:</b>	Oxidising agents, alkaline materials. Methamidophos is Slightly corrosive to mild steel and copper alloys.
<b>Hazardous decomposition Products:</b>	Mercaptans, disulphates, thioether. In a fire, hydrogen cyanide, carbon monoxide, phosphorus pentoxide, sulphur dioxide and nitrogen oxides may be formed.
<b>Hazardous reactions :</b>	Dangerous reactions are possible with strong oxidizing

---

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity – Oral : LD<sub>50</sub></b>	18mg/kg (rat)
<b>Acute toxicity - Dermal : LD<sub>50</sub></b>	49mg/kg (rat)
<b>Acute toxicity – Inhalation: LC<sub>50</sub></b>	Approx. 0.252mg/l aerosol
<b>Skin irritation :</b>	Non-irritant (rabbit) (similar product)
<b>Eye irritation:</b>	Non irritant (rabbit)
<b>Sensitization :</b>	Non sensitizing (Buehler test)
<b>Chronic toxicity</b>	Repeated minor exposure may have a cumulative poisoning effect. The main health effects from repeated exposure would be toxic symptoms of cholinesterase inhibition as described above. Animal studies with methamidophos showed no evidence of oncogenic, carcinogenic or teratogenic potential. It may be weakly mutagenic.

---

## 12. ECOLOGICAL INFORMATION

<b>Fish toxicity:</b>	LC50 (96 h): 25 mg/l rainbow trout ( <i>Oncorhynchus mykiss</i> ) LC50: 34 mg/l (96 h) ( <i>Lepomis macrochirus</i> )
<b>Daphnia toxicity:</b>	EC50 (48 h): 0.27 mg/l (Daphnia magna)
<b>Algae toxicity:</b>	ErC50 (96 h): > 178 mg/L ( <i>Scenedesmus subspicatus</i> )
<b>Bird toxicity:</b>	LD50: 10 mg/kg (bobwhite quail) (96h)
<b>Bee toxicity:</b>	Toxic to Bees
<b>Earthworm toxicity:</b>	LC50 (14 d): 44 mg/kg soil ( <i>Eisenia foetida</i> )
<b>Soil, Water, Air:</b>	Rapidly degraded in soil; field DT50 approx. < 2 days. In water, DT50 5 to 27 days (pH 7); photolysis may contribute to degradation. Rapidly degraded in air, DT50 0.578 days.

---

## 13. DISPOSAL CONSIDERATIONS

**Methods of disposal :** Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, follow the recommendations in NZS 8409.

**CONTAINER DISPOSAL:** Triple rinse container and add rinsate to spray tank. Dispose of cleaned container at your local AGRECOVERY container collection site.

---

## 14. TRANSPORT INFORMATION - International transport regulations

<b>UN number:</b>	3018
<b>Class:</b>	6.1
<b>Packing Group:</b>	II
<b>Marine Pollutant:</b>	Yes
<b>Proper shipping name :</b>	ORGANOPHOSPHOROUS PESTICIDE, LIQUID, TOXIC (contains methamidophos)

### INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

---

## 15. REGULATORY INFORMATION

<b>ACVM Registered Number:</b>	<b>P5915</b> (See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration Conditions).
<b>HSNO Approval Code:</b>	<b>HSR000226</b> (See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for controls).
<b>Approved Handler:</b>	This product must only be applied by an Approved Handler or under the supervision of an Approved Handler.

**Tracking:**

Location and movement of this product must be recorded at each stage of its lifecycle.

---

**16. OTHER INFORMATION****Disclaimer EXCLUSION OF LIABILITY: PLEASE READ**

This Material Safety Data Sheet is based on information available at the time of issue. To the extent permitted by law, users of this information accept that neither the manufacturer, Agrisource 2000 Limited as distributor, nor any other distributor have any liability or responsibility whatsoever for any loss, damage or injury whether in contract or tort, whether direct, indirect or consequential howsoever arising in connection with the supply of these information.