

# SAFETY DATA SHEET



## Fumasol<sup>®</sup> Soil fumigant

Date of Issue: 5 January 2018

### 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

**Chemical name of active ingredient(s):** Metam sodium  
Sodium N-methyldithiocarbamate

**Recommended use:** Soil Fumigation

**Supplier:** Etec Crop Solutions Limited  
PO Box 51584  
Pakuranga, Auckland  
Phone 0800 100 325

**Emergency telephone number:** 0800 Poison (0800 764 766) 24 Hours

### 2. HAZARDS IDENTIFICATION

**Hazard Classification:** Toxic: 6.1D, 6.3A, 6.4A, 6.5B, 6.7B, 6.8B, 6.9A,  
Ecotoxic: 9.1A, 9.2C, 9.3C

**Required identification Details:**

Approved Handler applies  
This product needs to be tracked  
**HARMFUL**  
**KEEP OUT OF REACH OF CHILDREN**  
**ECOTOXIC**  
May be harmful if swallowed, inhaled or absorbed through the skin.  
May cause skin and eye irritation.  
May cause sensitization from prolonged skin contact.  
Causes burns. Contact with acids liberates toxic gas.  
Repeated oral exposure at high doses is suspected of causing cancer and reproductive damage.  
TOXIC – repeated exposure at high doses is suspected of causing damage to the respiratory system.  
ECOTOXIC - very toxic to aquatic organisms. May cause long-term effects in the aquatic environment.  
Harmful to the soil environment and to terrestrial vertebrates.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/preparation Information on hazardous ingredients**

Common name	CAS No	%
Metam sodium	137-42-8	42

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## 4. FIRST-AID MEASURES

### Description of necessary first aid measures:

If symptoms persist seek medical help. Show this safety data sheet to the medical practitioner.

### Effects and symptoms

#### First-aid measures

**Inhalation** of product mist may cause irritation of the nose, throat and respiratory tract.

**Ingestion** of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea.

**Fumasol** is classified as slightly toxic to humans.

**Skin** contact with product may cause skin irritation.

Repeated/prolonged skin contact may cause hypersensitivity type dermatitis. Skin absorption is unlikely to occur.

**Eyes:** Contact with the eyes by may cause irritation or a burning sensation.

#### **Inhalation:**

Remove victim from contaminated atmosphere. Move to fresh air. If breathing is laboured, administer oxygen. If breathing has ceased, clear airway and start mouth to mouth resuscitation. If heart has stopped beating, external heart massage should be applied. Obtain immediate medical attention.

#### **Ingestion:**

If swallowed, seek medical advice and show this safety data sheet or label. DO NOT INDUCE VOMITING. Give 1 or 2 glasses of water. If vomiting does occur, repeat fluid administration. Treat symptomatically. If unconscious or convulsing, do not give fluids. Obtain immediate medical attention.

#### **Skin contact:**

Immediately flush with large quantities of water for 15 minutes. Remove contaminated clothing (under a safety shower). Do not neutralize with chemical agents. Obtain medical attention if irritation occurs.

#### **Eye contact:**

Immediately flush with large quantities of water for 15 minutes. Remove contact lenses if present and easy to do. Hold eyelids apart during irrigation to insure thorough flushing of the entire area of the eye and lids. Do not attempt to neutralize with chemical agents or use oils or ointments. Obtain immediate medical attention. Continue flushing if medical help not immediately available.

#### **Notes to a physician:**

Treat symptomatically.

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## 5. FIRE-FIGHTING MEASURES

#### **HAZCHEM Code:**

2XE

#### **Extinguishing media:**

Fine water mist or fog, carbon dioxide, alcohol-resistant foam, dry chemicals.

DO NOT USE HIGH VOLUME WATER JET.

#### **Specific methods:**

The product itself doesn't burn. Cool container/tanks with water spray. Do not flush into surface water or sewer system. Keep product and empty container away from heat and sources of ignition.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

#### **Protection of fire-fighters:**

In the event of fire, wear self contained breathing apparatus.

Wash, decontaminate removed clothing before re-use.

#### **Specific hazards**

Heating or fire can release toxic gas. Flammable.

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## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Avoid contact with skin, eyes and clothing. Wear protective gloves/clothing and eye/face protection. Evacuate personnel to safe areas. Keep people away from upwind of spill/leak.
<b>Environmental precautions:</b>	Remove immediately adhering matter. Prevent product from entering sewers, drains or surface waterways. Toxic to fish.
<b>Methods for cleaning up:</b>	Confine and absorb small releases on sand, earth or other inert absorbent material. Place in a chemical waste container. Large spills should be collected mechanically (remove by pumping) for disposal.

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## 7. HANDLING AND STORAGE

<b>Handling:</b>	In accordance with local and national regulations. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment.  Avoid contact with skin, eyes or clothing. Wear personal protective equipment. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.
<b>Storage:</b>	In accordance with local and national regulations. Store in cool, dry, well ventilated areas in closed container. Do not reuse empty containers.  Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Do not store near acids or metals. Keep at temperatures below 35°C.
<b>Packaging materials:</b>	Dispose of in compliance with local and national regulations. Metal Drums

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace Exposure Guidelines

<b>Workplace exposure standards:</b>	Not Established
<b>Exposure Standards outside: The workplace:</b>	<b>TEL:</b> Not Established <b>EEL:</b> Not Established

### Engineering measures

<b>Exposure control measures:</b>	Use adequate exhaust ventilation to prevent inhalation of product.
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### Personal Protective Equipment

#### **Detail specifications for equipment:**

<b>Respiratory system:</b>	Wear full protective gear and self-contained breathing apparatus with filter model ABEKP3; face shield.
<b>Skin and body:</b>	Wear suitable protective equipment. Choose body protection according to the amount and concentration of the substance at the workplace – protective suit and boots.
<b>Hands:</b>	Neoprene gloves to meet specifications of EU Directive 89/689/EEC and the standard EN374 derived from it. Choose body protection according to the amount and concentration of the substance at the workplace.
<b>Eyes:</b>	Chemical goggles and a full face shield.
<b>Environmental exposure controls:</b>	Prevent product from entering drains, sewers and mixing with surface water. Avoid subsoil penetrations.
<b>General hygiene:</b>	Do not eat, drink or smoke while handling. Wash face, hands and exposed skin after work and before eating or drinking.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state, odour &amp; colour:</b>	Amber to green liquid with slightly sulphurous odour.
<b>pH:</b>	7.5 – 10.5 (42% solution)
<b>Vapour Pressure:</b>	0.0575 Pa @ 25°C (99.9%)
<b>Boiling Point:</b>	97 - 102°C
<b>Freezing/melting point:</b>	NA
<b>Solubility:</b>	578.29 g/L (99.9%)
<b>Specific gravity or density:</b>	1.15 – 1.21 g/ml
<b>Viscosity:</b>	3.54cSt @20°C
<b>Flashpoint:</b>	>NA
<b>Octanol/water partition coefficient:</b>	Log Pow -2.91
<b>Explosion properties:</b>	Not Explosive
<b>Oxidation properties:</b>	Not an oxidizer
<b>Density:</b>	1.15 – 1.21 g/cm <sup>3</sup>
<b>Flammability:</b>	Not auto-flammable

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## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Conditions to avoid:</b>	Heat
<b>Materials to avoid:</b>	Metam sodium solutions are corrosive to copper, zinc, or aluminum or any of their alloys such as brass, or galvanized materials. These materials of construction should not be used in handling systems or storage containers for this product. Decomposes by reaction with strong acids.
<b>Hazardous decomposition Products:</b>	Combustible material. Contact with acids liberates toxic gas. Avoid subsoil penetration. MITC vapour can be released during processing. Other hazardous decomposition products: carbon oxides, nitrogen oxides, sulphur oxides.
<b>Hazardous polymerization:</b>	Will not occur
<b>Specific Data:</b>	
<b>Hazardous reactions :</b>	None known.

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## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity – Oral :</b>	Acute Oral LD50 = 870 mg/kg (Rat)
<b>Acute toxicity - Dermal :</b>	Acute Dermal LD50 > 2,000 mg/kg (Rat)
<b>Acute toxicity – Inhalation:</b>	Acute Inhalation LC50 = 2.54 mg/L, 4 hr (Rat)
<b>Skin irritation :</b>	Corrosive (rabbit)
<b>Eye irritation:</b>	None (rabbit)
<b>Sensitization :</b>	Causes sensitisation on guinea pigs.
<b>Human experience:</b>	Causes severe burns, headache, nausea, respiratory disorders, eye irritation.
<b>Target Organ Effects:</b>	Nasal inner lining, Kidney, Liver, Bladder.
<b>Chronic toxicity</b>	
<b>Carcinogenicity:</b>	Did not show mutagenic or carcinogenic effects in animal experiments.
<b>Reproductive toxicity:</b>	Possible risk of harm to unborn child.
<b>Other information:</b>	Repeated oral exposure at high doses is suspected of causing cancer and reproductive damage. Repeated exposure at high doses is suspected of causing damage to the respiratory system.

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## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	
<b>E.E.L</b>	Not established
<b>T.E.L</b>	Not established
<b>Fish</b>	LC <sub>50</sub> /96h : 0.10 – 100 mg/L
<b>Daphnia magna</b>	EC <sub>50</sub> /48h 1 – 10 mg/L (48h)
<b>Algae</b>	EC <sub>50</sub> /72h 0.56 mg/L (72h)
<b>Bacteria</b>	IC <sub>50</sub> : 4.36 mg/L (3h)
<b>Mobility</b>	Koc = <50
<b>Persistence/degradability Soil</b>	Aquatic environment: According to the results of tests of biodegradability this product is considered a being readily biodegradable.
<b>Bioaccumulative potential:</b>	minimum

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## 13. DISPOSAL CONSIDERATIONS

<b>Waste from Residues / Unused product</b>	Dispose of in accordance with local regulations. Waste codes should be assigned by the user based on the application for which the product was used. Classified as hazardous waste according to national equivalent of EC-Dir. 91/689; disposal of toxic and hazardous waste.
<b>Container disposal:</b>	Triple rinse container and add residue to spray tank. Burn if permitted and circumstances, especially wind direction permit, otherwise bury in landfill.

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## 14. TRANSPORT INFORMATION - International transport regulations

**UN number:** UN3082  
**Class or Division:** 9  
**Sub Class:**  
**Packing Group:** III  
**Marine Pollutant:** Yes  
**Proper shipping name :** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (Contains 51% metam sodium)  
**Other Information:**

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## 15. REGULATORY INFORMATION

**ACVM Registered Number:** Registered pursuant to ACVM Act 1997, No. P4234  
**HSNO Approval Code:** HSNO Approval Code HSR000628

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## 16. OTHER INFORMATION

**Additional information:** **Original Issue Date:** 14<sup>th</sup> December 2005  
**Revision Date:** 5 January 2018  
**Replaces:** ES245

### ***Disclaimer***

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