



# Material Safety Data Sheet

CS: 1.5.27

Infosafe No™ 3NU1H	Issue Date : August 2011	ISSUED by CRPCARE
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Product Name **TRIFOLAMINE Selective Herbicide**

Classified as hazardous

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** TRIFOLAMINE Selective Herbicide  
**Product Code** 0272  
**Product Type** Group I Herbicide  
**Company Name** Crop Care Australasia Pty Ltd (ABN 53 061 362 347)  
**Address** Unit 15/16 Metroplex Avenue Murarrie  
 Queensland 4172 Australia  
**Emergency Tel.** 1800 033 498 (24hr Australia)  
**Telephone/Fax Number** Tel: +61 7 3909 2000  
 Fax: +61 7 3909 2010  
**Recommended Use** For the control of broadleaf weeds in seedling and established lucerne, medic and clover pastures and cereal crops undersown with lucerne, medic or clover as specified in the Directions for Use table on the label.  
**Other Information** This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

## 2. HAZARDS IDENTIFICATION

**Hazard Classification** Classified as hazardous  
 HAZARDOUS SUBSTANCE.  
 NON-DANGEROUS GOODS.  
 Hazard classification according to the criteria of NOHSC.  
 Dangerous goods classification according to the Australia Dangerous Goods Code.  
**Risk Phrase(s)** Classified as hazardous  
 R22 Harmful if swallowed.  
 R41 Risk of serious damage to eyes.  
**Safety Phrase(s)** S13 Keep away from food, drink and animal feeding stuffs.  
 S2 Keep out of reach of children.  
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S37/39 Wear suitable gloves and eye/face protection.  
**Other Information** Poisons Schedule S5

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization** Liquid

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	2,4-DB (present as the dimethylamine salt)	94-82-6	500 g/L
	Water		Balance
	Other ingredients (considered non-hazardous)		10-30 %

## 4. FIRST AID MEASURES

**Inhalation** Remove affected person to fresh air until recovered.

**Ingestion** If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.  
 The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been



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<b>Skin</b>	swallowed (more than about one tablespoon for an adult person) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.
<b>Eye</b>	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
<b>Advice to Doctor</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice. Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
<b>Hazards from Combustion Products</b>	Non-combustible. If involved in a fire, it will emit carbon monoxide, phosgene and possibly oxides of phosphorous.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

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## 6. ACCIDENTAL RELEASE MEASURES

<b>Spills &amp; Disposal</b>	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect in sealed open top containers for disposal.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.

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## 7. HANDLING AND STORAGE

<b>Conditions for Safe Storage</b>	Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
<b>Other Information</b>	Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses. Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. Care should be taken especially where capeweed, Paterson's curse and variegated thistles predominate in the pasture. Always read the label and any attached leaflet before use.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards</b>	No exposure standard for this product has been set, however, an exposure standard has been set for dimethylamine vapour at 2 ppm.
<b>Engineering Controls</b>	Use in a well ventilated area only.
<b>Personal Protective Equipment</b>	When opening the container and preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.
<b>Hygiene Measures</b>	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	Liquid
<b>Appearance</b>	Brown liquid
<b>Odour</b>	Faint ammoniacal odour.



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<b>Melting Point</b>	Approx -5°C
<b>Boiling Point</b>	100°C
<b>Solubility in Water</b>	Soluble in water.
<b>Specific Gravity</b>	1.179 - 1.181
<b>pH Value</b>	9.8 - 10.1
<b>Vapour Pressure</b>	Active ingredient considered non volatile
<b>Volatile Component</b>	16 - 30%
<b>Flash Point</b>	Not flammable
<b>Flammability</b>	Not flammable.
<b>Flammable Limits - Lower</b>	Not flammable

## 10. STABILITY AND REACTIVITY

<b>Incompatible Materials</b>	Reaction of the concentrate or spray mix with acids will precipitate solid 2,4-DB acid and largely de-activate the product and cause blockages in spray equipment. The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour. Dimethylamine is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV of 2 ppm (TWA) has been set.
<b>Hazardous Reactions</b>	Keep away from strong oxidising agents.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicology Information</b>	No harmful effects are expected if the precautions on the label and this MSDS are followed.
<b>Inhalation</b>	When applying the product as a spray avoid breathing in spray mist.
<b>Ingestion</b>	May cause irritation to mouth, throat and stomach.
<b>Skin</b>	Prolonged contact with the concentrate may cause irritation and cause skin eruptions.
<b>Eye</b>	The concentrate will cause severe irritation and possible damage unless washed off immediately.
<b>Chronic Effects</b>	Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.
<b>Acute Toxicity - Oral</b>	LD50 (rat) 700 mg/kg for technical 2,4-DB LD50 (rat) 700 mg/kg for dimethylamine
<b>Acute Toxicity - Dermal</b>	LD50 (rat) 800 mg/kg for technical 2,4-DB
<b>Human Effects</b>	Symptoms of acute overexposure may include: headache, nausea, dizziness and vomiting. In extreme cases, possibly twitching and spasms, dyspnea, cyanosis and exhaustion.
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for 2,4-DB for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.9 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety and Environmental Health, 'ADI List', June 2006).

## 12. ECOLOGICAL INFORMATION

<b>Persistence / Degradability</b>	Average field half life of 2,4-DB dimethylamine salt is 10 days.
<b>Other Precautions</b>	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product.
<b>Environ. Protection</b>	Spray drift can cause damage, read the label for more information.



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**Acute Toxicity - Fish** The following is data for the active ingredient, 2,4-DB amine salt and esters. LC50 (96hr) for rainbow trout is 4 mg/l.

**Acute Toxicity - Other Organisms** Not toxic to bees.

### 13. DISPOSAL CONSIDERATIONS

**Product Disposal** On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

**Container Disposal** Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

### 14. TRANSPORT INFORMATION

**Transport Information** It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

**Storage and Transport** Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

### 15. REGULATORY INFORMATION

**Poisons Schedule** S5

**Packaging & Labelling** CAUTION  
KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

**Hazard Category** Harmful, Irritant

**AICS (Australia)** All of the components in this product are listed on the Australian Inventory of Chemical Substances.

### 16. OTHER INFORMATION

**Date of preparation or last revision of MSDS** Reviewed 26/08/2011

**Contact** Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000

**Person/Point** After Hours: Shift Supervisor Phone: 1800 033 498

**Revisions** The MSDS was reviewed. Minor changes were made to the information.

**Highlighted**

...End Of MSDS...

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