

Material Safety Data Sheet

CS: 1.4.21

Page: 1 of 5

Infosafe No™ NU0H3 Issue Date :December 2008 ISSUED by CRPCARE CS: 1.4.21

Product Name **HAMMER® HERBICIDE**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name HAMMER® HERBICIDE
Product Code 0590
Product Type Group G 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 improvement in the control of marshmallow and certain other broadleaf weeds prior to establishment of crops or fallows or forest plantations, in commercial, industrial and public service areas, around agricultural buildings and yards, in treefruits, nuts, grapevines in tank mixture with knockdown herbicides; control of marshmallow and annual nettles in grass pastures and rough grass/turf areas; desuckering of grapevines and control of volunteer cotton seedlings including Roundup Ready® cotton and desiccation of cotton re-growth as per 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
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness and cracking.
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 Wear suitable gloves.
S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	Carfentrazone-ethyl	128639-02-1	240 g/L
	Liquid Hydrocarbon	64742-94-5	736 g/L
	N-methyl pyrrolidone	872-50-4	20 g/L
	Other ingredients (considered non-hazardous)		Balance

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered.

Material Safety Data Sheet

CS: 1.4.21

Page: 2 of 5

Infosafe No™ NU0H3	Issue Date :December 2008	ISSUED by CRPCARE	CS: 1.4.21
--------------------	---------------------------	-------------------	------------

Product Name **HAMMER® HERBICIDE**

Classified as hazardous

Ingestion	If symptoms develop or persist, seek medical advice. Rinse mouth and then drink plenty of water. 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.
Skin	Remove contaminated clothing and launder before re-use. Wash affected areas thoroughly with soap and water.
Eye	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor	Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	If involved in a fire, it may emit hydrogen chloride, phosgene and hydrogen fluoride.
Special Protective Equipment for fire fighters	Breathable air apparatus should be worn when fighting a fire in which this product is involved.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Do NOT spray in high winds. Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.
Conditions for Safe Storage	Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
Tank Cleaning	See label for detailed information on cleaning of spray equipment.
Other Information	Always read the label and any attached leaflet before use. Mix only as much herbicide solution as needed at the time. Do not store the sprayer for any extended period of time, especially overnight, with Hammer Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing or spray nozzles or strainers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m ³ ; 15ppm TWA, as total hydrocarbon. NOHSC has set the following exposure standard for N-methyl pyrrolidone : TLV (TWA) 103 mg/m ³ , STEL 309.
Engineering Controls	Handle in well ventilated areas, generally natural ventilation is adequate.
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length rubber gloves and face shield or goggles. Re-entry period: Do not enter treated area until spray has dried.

Material Safety Data Sheet

CS: 1.4.21

Page: 3 of 5

Infosafe No™ NU0H3	Issue Date :December 2008	ISSUED by CRPCARE	CS: 1.4.21
--------------------	---------------------------	-------------------	------------

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Hygiene Measures 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.

Requirements Concerning Special Training NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance Yellow orange liquid.

Boiling Point 220-290°C (for solvent)

Solubility in Water Forms an emulsion in water.

Specific Gravity 1.074

Vapour Pressure 0.016 mPa @ 25°C for carfentrazone ethyl

Vapour Density (Air=1) >1 (solvent)

Octanol/Water Partition Coefficient Kow Log P is 3.36 for carfentrazone-ethyl

Flash Point 88°C

Flammability Combustible liquid C1.

Auto-Ignition Temperature >450°C (solvent)

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
Hydrolyses at pH >7.

Hazardous Reactions Keep away from strong oxidising agents.

Hazardous Polymerization Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No harmful effects are expected if the precautions on the label and this MSDS are followed.

Inhalation High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.

Ingestion If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.

Skin Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.

Eye The concentrate will cause irritation of the eyes.
Possible symptoms include redness, swelling, tearing and pain.

Chronic Effects Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Acute Toxicity - Oral LD50 (female rat) 5143 mg/kg for carfentrazone-ethyl

Acute Toxicity - Dermal LD50 (rabbit) >4000 mg/kg for carfentrazone-ethyl

Acute Toxicity - Inhalation LC50 (rat) (4hr) >5 mg/l

Eye Irritation The product is an eye irritant.

Other Information The Australian Acceptable Daily Intake (ADI) for carfentrazone-ethyl for a human is 0.03 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 3 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, 'ADI List', September 2007).

Material Safety Data Sheet

CS: 1.4.21

Page: 4 of 5

Infosafe No™ NU0H3 Issue Date :December 2008 ISSUED by CRPCARE CS: 1.4.21

Product Name **HAMMER® HERBICIDE**

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12. ECOLOGICAL INFORMATION

Other Precautions	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environ. Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	The following is data for the active ingredient, carfentrazone-ethyl. Not toxic to fish. LC50 (96 hr) for various species is 1.6 - 43 mg/l.
Acute Toxicity - Daphnia	LC50 (96hr) for daphnia is 9.8 mg/l.
Acute Toxicity - Algae	EC50 for algae is 0.012 - 0.018 mg/l for carfentrazone-ethyl
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for quail is >1000 mg/kg Bees: Not toxic to bees. LD50 >35 (oral); >100 (contact) µg/bee.

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 Storage and Transport	It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport. Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Exempt from classification as a Dangerous Good in packs less than 3,000 kg or L as per ADG7, SP no. AU01. For bulk shipments as Class 9, use UN 3082, HazChem code •3Z.
UN Number (Sea Transport)	3082
IMO Marine Pollutant	Marine Pollutant
IMO Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains carfentrazone-ethyl)

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

16. OTHER INFORMATION

Material Safety Data Sheet

CS: 1.4.21

Page: 5 of 5

Infosafe No™ NU0H3	Issue Date :December 2008	ISSUED by CRPCARE	CS: 1.4.21
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Date of preparation Revised 11/12/2008

or last revision of

MSDS

Contact

Normal Hours: Mr Volker Maier Phone: (03) 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

Other Information

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...End Of MSDS...

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