

Material Safety Data Sheet



1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: DACONATE (R) POST EMERGENCE HERBICIDE

Synonyms: Crop Care MSDS No. 42321

CAS-No.:

Molecular Formula:

Supplier: Crop Care Australasia Pty Ltd

ACN: 061 362 347

Street Address: 77 Tingira Street
Pinkenba 4008
Australia

Telephone: + 61 7 3867 9100

Facsimile: + 61 7 3867 9110

Emergency telephone number: 1 800 033 111 (ALL HOURS)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Post emergence herbicide.

Appearance: Pink, slightly viscous liquid, with a pleasant fruity odour.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Monosodium methyl arsonate	2163-80-6	88.7% (800 g/L)
Surfactant	-	LOW
Water	7732-18-5	LOW
		100%

PROPORTION (% weight per weight):

VHIGH >60, HIGH 30-60, MED 10-29, LOW 1-9, VLOW <1

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are National Registration Authority (NRA) approved active constituents.

3. HAZARDS IDENTIFICATION

Hazardous according to criteria of Worksafe Australia.

Hazard Category

Xn Harmful

R-phrases(s)

Product name: DACONATE (R) POST EMERGENCE HERBICIDE

Substance Key: 000504232101

Issued: 01.04.1998

Version: 1.1

Page: 1 of 6

Material Safety Data Sheet



R22 Harmful if swallowed.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Poisons Schedule (Aust)/Toxic Substance (NZ): S7

This material is a Scheduled Poison S7 and must be stored, maintained and used in accordance with the relevant regulations.

4. FIRST AID MEASURES

Poison Information Centres in each State capital city can provide additional assistance for scheduled poisons.

Ingestion: Rinse mouth with water. Give plenty of water to drink. If more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF. Seek immediate medical assistance.

Eye contact: Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Skin contact: Wash contaminated skin with plenty of water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Specific hazards: Non combustible liquid.

Fire fighting further advice: Not combustible. Decomposes on heating emitting toxic fumes including arsine gas. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of decomposition.

Suitable extinguishing media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Wash area down with detergent and excess water.

LARGE SPILLS: Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material).

Material Safety Data Sheet



Collect and seal in properlylabelled drums for disposal. Wash area down with detergent and excess water. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture.

7. HANDLING AND STORAGE

Storage: Store in the closed, original container in a well ventilated area as cool as possible and away from children, animals, food, feedstuffs, seed and fertilizers. Do not store for prolonged periods in direct sunlight.

This material is a Scheduled Poison S7 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering measures: Use in a well ventilated area. Keep containers closed when not in use.

Personal protection equipment: Orica Personal Protection Guide No.1, 1998: B - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES (S).

MANUFACTURE, PACKAGING AND TRANSPORT: Avoid skin and eye contact and the inhalation of vapour. Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet.

If risk of inhalation exists, wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

PREPARATION AND USE OF PRODUCT: Avoid contact with skin and eyes. When preparing the spray and using the preparedspray wear cotton overalls buttoned to the neck and wrist and a washable hat and rubber gloves. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Pink, slightly viscous liquid, with a pleasant fruity odour.

Solubility: Soluble in water and methanol. Insoluble in most other organic solvents.

Specific Gravity (20 C)	: 1.55	Melting Point (C)	: N Av
Rel Vapour Density (air=1)	: N Av	Boiling Point (C)	: 100
Vapour Pressure (20 C)	: N Av	Decomp. Point (C)	: N Av
Flash Point (C)	: N Av	Sublimation Point	: N App
Flammability Limits (%)	: N Av	pH	: N Av
Autoignition Temp (C)	: N Av	Viscosity	: N Av
% Volatile by volume	: N Av	Evaporation Rate	: N Av

Material Safety Data Sheet



Solubility in water (g/L) : N Av (n-Butyl acetate=1)
(Typical values only - consult specification sheet)
N Av = Not available N App = Not applicable

10. STABILITY AND REACTIVITY

Stability: Reacts with strong oxidising and reducing agents.

11. TOXICOLOGICAL INFORMATION

Main symptoms: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

Ingestion: Swallowing can result in nausea, headache, dizziness, stupor, vomiting, diarrhoea, convulsions, paralysis or death. (1)

Eye contact: Maybe an eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Where this material is used in a poorly ventilated area or at elevated temperatures or confined spaces vapour may cause irritation to mucous membranes and respiratory tract, headache and nausea. Inhalation of mists or aerosols may produce respiratory irritation.

Long Term Effects: Repeated or prolonged exposure to monosodium methyl arsonate may result in a salty taste in the mouth, burning throat and stomach and intestinal pains. (1)

Acute toxicity / Chronic toxicity

No LD50 data available for the product. However, for the constituent, MONOSODIUM METHYL ARSONATE: (1)

Oral LD50 (rat): 700-14000 mg/kg.

Oral LD50 (mice): 300 mg/kg.

Oral LD50 (rabbit): 102 mg/kg.

Oral LD50 (cow): 230 mg/kg.

Dermal LD50 (rabbit): 2500 mg/kg.

Inhalation LC50 (rat): >22.1 mg/L/4hr.

Inhalation LD50 (rabbit): >20 g/m³/4hr.

TDL0 (Lowest published toxic dose)(Oral, cow) is 100 mg/kg.

SKIN: Mild irritant (rabbit).

EYES: Mild irritant (rabbit).

Although human health effects data are sparse, it is generally considered that organic arsenicals are substantially less toxic than the inorganic forms.

No studies were located regarding cancer in humans after oral, dermal and inhalation exposure to organic arsenicals.

Rats exposed to the organic arsenical, dimethyl arsinic acid, revealed an increased incidence of basophilic foci (believed to be a precancerous lesion) in the liver. This suggests that this compound may act as a tumour promoter. The data is too limited to draw firm conclusions, but indicates that organic arsenicals might possess weak carcinogenic

Material Safety Data Sheet



potential.

ADI (Acceptable Daily Intake) for humans is 0.0005 mg/kg/day. (2)

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

MONOSODIUM METHYL ARSONATE: (1)

AQUATIC TOXICITY:

Toxic to aquatic organisms.

96hr LC50 (bluegill sunfish): >51 mg/L.

96hr LC50 (trout): >167 mg/L.

No Observed Effect Concentration (NOEC) (bluegill sunfish): 93.2 mg/L.

No Observed Effect Concentration (NOEC) (trout): 167 mg/L.

48hr EC 50 (Daphnia magna): 77.5 mg/L.

TERRESTRIAL SPECIES:

Oral LD50 (quail): 425.2 g/kg.

5d Diet LC50 (quail): 1667 ppm.

5d Diet LC50 (mallard duck): >2866 ppm.

LD50 (bee): 68 ug/bee.

No Observed Effect Level (NOEL) (bee): 36 ug/bee.

LogPow is 2.40 (sandy soil) to 3.45 (silty loam).

ENVIRONMENTAL FATE, PERSISTENCE AND DEGRADATION:

Organoarsenical pesticides are metabolised by soil bacteria to alkylarsines, arsenate and monomethyl arsonic acid. The half life in soil is 55 days.

Bioconcentration of arsenic occurs in aquatic organisms.

Bioconcentration factors range from 0 to 17 in freshwater invertebrates and fish to 350 in marine oysters.

Biomagnification in aquatic food chains does not appear to be significant, although some fish and invertebrates contain high levels of arsenic compounds.

13. DISPOSAL CONSIDERATIONS

Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. Break, crush, or puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Material Safety Data Sheet



15. REGULATORY INFORMATION

Hazardous according to criteria of Worksafe Australia.

Hazard Category

Xn Harmful

R-phrases(s)

R22 Harmful if swallowed.

S-phrases(s)

S46 If swallowed, seek medical advice immediately and show this container or label.

S36 Wear suitable protective clothing.

Poisons Schedule (Aust)/Toxic Substance (NZ): S7

16. OTHER INFORMATION

Literary reference

- (1) Material Safety Data Sheet - Monosodium methyl arsonate (CDS 17493)
Orica Australia Pty Ltd. 02/98
- (2) ADI List, Commonwealth Department of Health and Family Services.
04/97

This Material Safety Data Sheet has been prepared by SHE Pacific Pty Ltd on behalf of Orica Ltd and its subsidiary companies.

Contact Point: SHE Pacific Pty Ltd, MSDS Services

Within Australia: Telephone 1 800 624 132

Facsimile (03) 9665 7929

Outside Australia: Telephone +61 3 9665 7500

Facsimile +61 3 9665 7929

Issue Date: 23/APR/98/JMK Supersedes Issue Date: 05/92

Reason(s) For Issue: Three Yearly Update.

Alignment to Worksafe Requirements.

New Toxicological Data.

Change in Environmental Data.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Orica Limited and its subsidiaries cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

Product name: DACONATE (R) POST EMERGENCE HERBICIDE

Substance Key: 000504232101

Issued: 01.04.1998

Version: 1.1

Page: 6 of 6