

Amgrow Chemspray Multiweed**Section 1 - Identification of Chemical Product and Company****Amgrow Pty Ltd**
PO Box 6390
Silverwater NSW 1811**Phone: (02) 9395 1200** (Business hours)
Fax: (02) 9395 1241**Trade Name:** Amgrow Chemspray Multiweed All Purpose Lawn Weeder
Product Use: Selective herbicide to control Mullumbimby couch and other broadleaf weeds in lawns
Issue Date: March 2013**Section 2 - Hazards Identification****Statement of Hazardous Nature****CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SWA (Xn Harmful, Xi Irritant)****NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE****Risk Phrases:** R22, Harmful if swallowed, R36 Irritating to eyes, R38 Irritating to skin, R41 Risk of serious eye damage**Safety Phrases:** S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S36/37/39 Wear suitable protective clothing and eye/ face protection**SUSMP Classification:** S5**ADG Classification:** None allocated. Not a Dangerous Good under the ADG Code.**UN Number:** None allocated**Emergency Overview****Physical Description & colour:** Brown coloured liquid.**Odour:** Phenoxy odour**Major Health Hazards:** Possible long term damage to eyes, harmful if swallowed**Potential Health Effects****Inhalation:** Data suggests that this product is harmful if inhaled. Prolonged exposure may lead to permanent health problems**Skin Contact:** Data suggests that this product may be absorbed through the skin and be harmful by skin absorption. Major skin exposure may lead to health problems.**Eye Contact:** This product is irritating to the eyes. It will cause discomfort such as stinging pain, watering and redness of the eyes. Effects may last after exposure has ceased, and in severe exposure, long lasting or even permanent effects such as corneal damage can occur.**Ingestion:** Data suggests that this product is harmful if swallowed**Carcinogen Status:****SWA:** No significant ingredient is classified as carcinogenic by SWA.**NTP:** No significant ingredient is classified as carcinogenic by NTP.**IARC:** No significant ingredient is classified as carcinogenic by IARC**Section 3 - Composition/Information on Ingredients**

Ingredients	CAS No	Conc. %
Bentazone	25057-89-0	19
MCPA (as dimethylamine salt)	2039-46-5	11
Dicamba (as dimethylamine salt)	1918-00-9	1.9
Other non hazardous ingredients	secret	<1
Water	7732-18-5	to 100

*This is a commercial product whose exact ratio of components may vary.***MATERIAL SAFETY DATA SHEET**

Section 4 - First Aid Measures

General Information: You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: If vapours or mists have been inhaled, and irritation or unusual symptoms have developed, remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

Skin Contact: If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and water to remove material. If you begin to feel unwell, seek medical attention.

Eye Contact: If this product comes into contact with eyes, hold open and wash with running water for at least 15 minutes. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. Seek medical attention.

Ingestion: If swallowed, do NOT induce vomiting unless requested to do so by medical advice. Wash mouth with water and contact a Poisons Information Centre, or call a doctor immediately.

Advice to Doctor: Treat symptomatically. Note the nature of this product.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Extinguishing Media: This product does not burn. Use extinguishing media suited to the materials that are burning. Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. Immediately evacuate the area of unnecessary personnel. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and respirator. All skin areas should be covered

Unusual Fire & Explosion Hazards: Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Likely to decompose only after heating to dryness followed by further strong heating.

Decomposition Products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Hydrogen chloride gas, chlorides, and in some circumstances, phosgene. Water.

Flash point: Does not burn

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including Face mask, face shield, gauntlets and self contained breathing apparatus. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those

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measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a S5 poison. Observe all relevant regulations regarding sale, transport and storage of this class of product. Containers should be kept closed in order to minimise contamination. Keep away from extreme heat and open flames and ensure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10.

Section 8 - Exposure Controls and Personal Protection

Exposure Limits	TWA (mg/m³)	STEL (mg/m³)	ADI (mg/Kg/day)	NOEL (mg/Kg/day)
Bentazone	not set	not set	0.1	10
MCPA	not set	not set	0.01	1.1
Dicamba	not set	not set	0.03	3

Exposure limits have been set for major ingredient in product. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. A TWA has not been established by Worksafe Australia for any of the major ingredients in this product. There is a blanket limit of 10mg/m³ for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, March 2012

Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: If there is a significant chance vapours or mists accumulating in the area where this product is being used, a local exhaust system should be used.

Eye Protection: Eye protection such as protective glasses or goggles is essential when this product is being used.

Skin Protection: You should prevent skin contact by wearing impervious gloves, protective clothing and, preferably, an apron. Make sure that all skin areas are covered

Protective Material Types: Suggest that protective clothing be made from the following materials: PVC, nitrile.

Respirator: If there is a significant chance vapours or mists accumulating in the area where this product is being used, a mask or respirator should be used.

Always wash hands before eating, drinking or smoking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Brown liquid.
Odour:	Phenoxy odour
Boiling Point:	No specific data. Expected to decompose before boiling.
Melting/softening point:	No specific data. Liquid at normal temperatures.
Volatiles:	No data. Expected to be low at 100°C
Vapour Pressure:	No data.
Vapour Density:	>1
Specific Gravity:	no data
Water Solubility:	Soluble
pH:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water distribution:	No data
Flashpoint:	Does not burn.

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Section 10 – Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions.

Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong acids, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Hydrogen chloride gas, chlorides, and in some circumstances, phosgene. Water.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Data below refers to active constituents only in concentrated form and is not indicative of product

Toxicity: *Dicamba* slightly toxic: LD₅₀ Oral (Rat) = 1707mg/kg, LD₅₀ Dermal (Rabbit) >2000mg/kg. *MCPA* is slightly toxic: LD₅₀ Oral (Rat) = 700-1160mg/kg, LD₅₀ Oral (mouse) = 550-880mg/kg, LD₅₀ Dermal (Rat) >1000mg/kg, LD₅₀ Dermal (Rabbit) >4000mg/kg. *Bentazone*: LD₅₀ Oral (rat): >1000 mg/kg Dermal LD₅₀ (rat): >2500 mg/kg

Reproductive effects: *Dicamba* The data suggest that dicamba is unlikely to cause reproductive effects in humans at expected levels of use. *MCPA*. It is unlikely that humans will experience effects under normal exposure conditions.

Teratogenic effects: *Dicamba* No teratogenic effects have been shown in lab animals such as rabbits and rats. *MCPA* Teratogenic effects in humans are unlikely at expected exposure levels.

Mutagenic effects: *Dicamba* has not been shown to be a mutagen. *MCPA*- It appears that the compound poses little or no mutagenic risk.

Carcinogenic effects: *MCPA* All of the available evidence on indicates that the compound does not cause cancer. *Dicamba* The data suggests that dicamba is not carcinogenic.

Organ toxicity: *MCPA* - Farm worker exposure has resulted in reversible anemia, muscular weakness, digestive problems, and slight liver damage

Fate in humans and animals:

MCPA is rapidly absorbed and eliminated from mammalian systems. Humans excreted about half of a 5 mg dose in the urine within a few days. No residues were found after day 5. *Dicamba* The data indicates that dicamba is rapidly absorbed into the bloodstream from the gastrointestinal tract. When daily intake stopped, storage in the organs declined rapidly. It is therefore concluded that dicamba does not bioaccumulate in mammalian tissues.

Section 12 - Ecological Information

Ecological Effects (for concentrated constituents only)

Effects on birds: *MCPA* is moderately toxic to wildfowl; LD₅₀ (bobwhite quail) = 377 mg/kg. *Dicamba* is practically nontoxic to birds. The LD₅₀ (mallard ducks) = 2009 mg/kg. The 8-day dietary LC₅₀ in mallards and in bobwhite quail is greater than 10,000 ppm.

Effects on aquatic organisms: *MCPA* is only slightly toxic to freshwater fish: LC₅₀ (rainbow trout) = 117 - 232mg/L. *MCPA* is practically nontoxic to freshwater invertebrates, and estuarine and marine organisms. *Bentazone* -Low toxicity to aquatic organisms. 48hr LC₅₀ (*Daphnia magna*) = 125 mg/L, 96hr LC₅₀ (rainbow trout) >100 mg/L. *Dicamba* is of low toxicity to fish. The LC₅₀ (48hr) (rainbow trout) = 35 mg/L, The LC₅₀ (*daphnia magna*) (48hr) = 110 mg/L

Effects on other organisms: *MCPA* is not toxic to bees. *Dicamba* poses little threat to wildlife and is not toxic to bees

Environmental Fate: Breakdown in soil and groundwater: *MCPA* and its formulations are rapidly degraded by soil microorganisms and it has low persistence, with a reported field half-life of 14 days to 1 month, depending on soil moisture and soil organic matter. *MCPA* readily leaches in most soils, but its mobility decreases with increasing organic matter. *MCPA* and its formulations show little affinity for soil. *Dicamba* is moderately persistent in soil. The half-life of dicamba in soil is typically 1 to 4 weeks It is stable to water and other chemicals in the soil. *Dicamba* does not bind to soil particles and is highly soluble in water. It is therefore highly mobile in the soil and may contaminate groundwater.

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Breakdown in water: MCPA - It is relatively stable to light breakdown, but can be rapidly broken down by microorganisms. Dicamba - Under conditions suitable for rapid metabolism, the half-life is less than 2 weeks. **Breakdown in vegetation:** MCPA is readily absorbed and translocated in most plants. It works by concentrating in the actively growing regions of a plant (meristematic tissue), where it interferes with protein synthesis, cell division, and ultimately the growth of non-resistant plants. It is actively broken down in plants. Dicamba is rapidly taken up by the leaves and roots of plants, and it is readily translocated to other plant parts.

Section 13 - Disposal Considerations

Disposal: There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. The Hierarchy of Controls seems to be common - the user should investigate: Reduce, Reuse, and Recycle and only if all else fails should disposal be considered. Note that properties of a product may change in use, so that the following suggestions may not always be appropriate. The following may help you in properly addressing this matter for this product. Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/>

Section 14 - Transport Information

ADG Code: This product is not classified as a Dangerous Good for transport by road or rail

IMDG/IATA: This product is not classified as a dangerous good for transport by sea or air

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The ingredients are mentioned in the SUSMP.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
ASCC	Australian Safety & Compensation Council
CAS number	Chemical Abstracts Service Registry Number
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters
IARC	International Agency for Research on Cancer
IATA	International Air Transport Authority
IMDG	International Maritime Dangerous Good
NOHSC	National Occupational Health and Safety Commission
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
SWA	Safe Work Australia (formerly ASCC and NOHSC)
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]

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