



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **CUTLASS HERBICIDE**
Chemical name of active: Dicamba is a benzoic acid derivative
Product Use: Herbicide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, 7011, Nelson
Telephone: +64 3 543 8275
Email: nzorders@adama.com

**Emergency Telephone: 0800 764 766 (National Poison Centre)
0800 734 607 (24hr Emergency Response)**

Date of SDS Preparation: 4 September 2023

Section 2. Hazards Identification

This substance is hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020

HSNO Approval No: HSR000442

Pictograms



Signal Word: Warning

HSNO Classification	Hazard Code	Hazard Statement
Skin irritation Category 2	H315	Causes skin irritation.
Eye irritation Category 2	H319	Causes serious eye irritation.
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Category 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	H421	Very toxic to the soil environment.
Hazardous to terrestrial vertebrates	H432	Toxic to terrestrial vertebrates.
Hazardous to terrestrial invertebrates	H442	Toxic to terrestrial invertebrates.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label carefully before use and follow all instructions.
P260	Do not breathe fume, mist, vapours and spray.
P264	Wash hands thoroughly after handling.
P273	Avoid unintended release into the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P302 + P313 + P332 + P352	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention.
P305 + P313 + P337 + P338 P351+	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P362 + P364	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.

Storage Code	Storage Statement
None Allocated	

Disposal Code	Disposal Statement
P501	Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container.

Section 3. Composition / Information on Ingredients

Ingredients	Value	CAS NUMBER.
Dicamba *	250g/l	55219-65-3
Other ingredients not contributing to the overall classification of the substance or non-hazardous	10-30	NA
Water	To bal	7732-18-5

* Dicamba is present as the dimethylamine salt.

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If on Skin Take off contaminated clothing and wash before re-use. Wash off immediately with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.

If Swallowed Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Not applicable.
Skin: Causes skin irritation.
Inhalation: Not applicable.
Eyes: Causes severe eye irritation.
Chronic: May cause damage to organs through prolonged or repeated exposure.

Notes to physician: There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable.
Hazardous thermal (de)composition products	There is no risk of explosion from this product under normal circumstances if it is involved in a fire. This product is likely to decompose only after heating to dryness, followed by further strong heating. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Suitable Extinguishing media	Use extinguishing media suited to burning materials.
Precautions for firefighters and special protective clothing	Wear proper protective equipment. Self-contained breathing apparatus.
HAZCHEM CODE	3Z

Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Absorb remainder in sand or other inert material. Avoid using sawdust or other combustible materials. Dispose of in an authorized waste collecting point.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Do not breathe fumes, mist, vapours and spray.
- Wash hands thoroughly after handling.
- Avoid unintended release into the environment.
- Remove protective clothing and wash hands, arms and face with soap and water before meals and after work.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Store in original, unopened container in a cool, dry place, out of direct sunlight and away from stock feed or foodstuffs.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
1-Methyl-2-pyrrolidone (skin) [872-50-4]	25	103	75	309

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

Engineering Controls

No special ventilation requirements are normally necessary for this product.

Personal Protection Equipment



Eyes	Safety goggles or Chemical goggles.
Hands and Skin	Wear chemical resistant gloves, suitable protective clothing and boots.
Respiratory	Respirator is recommended.
General	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

Section 9 Physical and Chemical Properties

Appearance	Clear, almost colourless liquid
Odour	Mild, Characteristic
Odour Threshold	Not applicable
pH	Not applicable
Boiling Point	Approximately 100°C at 100kPa
Melting Point	Approximately 0 °C
Flash Point	Not applicable
Flammability	Not applicable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	2.37 kPa at 20°C (water vapour pressure)
Specific Gravity	Not applicable
Bulk Density	Not applicable
Relative Density	Not applicable
Solubility in water	Completely soluble in water
Auto-ignition Temperature	Not applicable
Octanol/water partition coefficient	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is unlikely to react or decompose under normal conditions.
Conditions to Avoid	Protect from (sun) light, open flame and sources of heat. Decomposes upon heating.
Incompatible Materials	This product should be kept in a cool place, preferable below 30 °C. Avoid strong acids, strong bases and strong oxidizing agents.
Hazardous Decomposition Products	This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable
Eye	Causes severe eye irritation.
Skin	Causes skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	No applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Preparation

Acute toxicity -

Dicamba

Oral: LD50 (rats) 757 to 1707 mg/kg
LD50 (mice) 1190 mg/kg
LD50 (rabbits) >2,000 mg/kg
LD50 (guinea pigs) 566 to 3,000 mg/kg

Acute toxicity - Dermal: LD50 (rabbits) >2000 mg/kg

Acute toxicity - Inhalation: LC50 (rat) > 200 mg/L

Skin irritation: Very irritating

Eye irritation: Very irritating

Sensitization: Skin sensitizer

Common name:

Dicamba

Chronic toxicity:

No toxic effects observed in rats given 25mg/kg/day for 2 years

Carcinogenicity:

No signs of cancer observed in rats given 25mg/kg/day for 2 years

Section 12. Ecotoxicological Information

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Ecotoxicity:

Fish Dicamba has a low toxicity to fish

LC50 (96 hours)	bluegill sunfish & rainbow trout = 135 mg/L
LC50 (48 hours)	rainbow trout = 35 mg/L
	bluegill = 40 mg/L
	carp = 465 mg/L

Birds Dicamba is practically nontoxic to birds

LC50 in both mallard and bobwhite quail	=	>10,000ppm
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Common name: Dicamba

Mobility: Soil - Moderately persistent

Persistence/degradability: The product is moderately persistent. Half-life time (t_{1/2}): Typically 1 to 4 weeks

Breakdown in soil and ground water: Under conditions suitable for rapid metabolism, the half-life is less than 2 weeks. Metabolism by soil microorganisms is the major pathway of loss under most soil conditions. The rate of biodegradation increases with temperature and increasing soil moisture and tends to be faster when soil is slightly acidic. When soil moisture increases above 50%, then rate of biodegradation declines. Dicamba slowly breaks down in sunlight. Volatilisation from soil surface is probably not significant, but some Volatilisation may occur from plant surface. 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. In humid areas, Dicamba will be leached from the soil in 3-12 weeks.

Breakdown in water: In water, microbial degradation is the main route of Dicamba disappearance. Photolysis may also occur. Aquatic hydrolysis, volatilization, adsorption to sediments, and bio-concentration are not expected to be significant.

Breakdown in vegetation: Dicamba is rapidly taken up by the leaves and roots of plants, and it is readily translocated to other plant parts. In some plant species, Dicamba accumulates in the tips of mature leaves. Desirable broadleaf plants such as fruit trees and tomatoes may be harmful during growth and development stages. Residues of Dicamba on treated plants can disappear through exudation from the roots into the surrounding soil, metabolism with the plant, or by loss from leaf surfaces.

Practically non toxic: birds. Low toxic: Fish. Non toxic: bees

Section 13. Disposal Considerations

Disposal Method: Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.



Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Do not allow product to enter waterways.

Section 14 Transport Information**This product is classified as a Dangerous Good for transport in NZ; NZS 5433****Road and Rail Transport**

UN No: 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicamba)

Air Transport

UN No: 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicamba)

Marine Transport

UN No: 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicamba)
 Marine Pollutant: Yes

Special Provisions:

If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information**This substance is hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020****HSNO Approval Code:** HSR000442

HSNO Classification: Skin irritation Category 2, Eye irritation Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates.

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handlers	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	100L (9.1A)
Emergency Response Plan	100L (9.1A)
Secondary Containment	100L (9.1A)
Hazardous Property Controls Notice 2017	
HPC Notice Part 1	Hazardous Property Controls preliminary provisions

HPC Notice Part 3	Hazardous substances in a place other than a workplace
HPC Notice Part 4 Subpart A	Substances that are hazardous to the environment: Site and storage controls
HPC Notice Part 4 Subpart B	Use of substances that are hazardous to the environment
HPC Notice Part 4 Clause 47	Equipment for environmentally hazardous substances must be appropriate
HPC Notice Part 4 Clause 48	Record of application of agrichemicals
HPC Notice Part 4 Clause 52	Agrichemicals that are hazardous to the aquatic environment must not be applied to water
HPC Notice Part 4 Subpart C	Qualifications required for the application of substances that are hazardous to the environment
ACVM Act and Regulations	
Registered pursuant to the ACVM Act 1997, See www.foodsafety.govt.nz for registration conditions	No. P7416
For all further controls	Refer to EPA website (www.epa.govt.nz) for controls document - HSR000442

Section 16 Other Information

Glossary

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997.
EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority.
HSNO	Hazardous Substances and New Organisms Act 1996.
HSW	Health and Safety at Work Act 2015.
HSW (HS) Regulations	Health and Safety at Work (Hazardous Substances) Regulations 2017.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level.
WES	Workplace Exposure Limit.

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer:

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