



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Produced for: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(928) 783-8844

Emergency Phone: (928) 783-3803
For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®:
For MEDICAL Emergency:

Inside the U.S.: (800) 424-9300
Outside the U.S.: (703) 527-3887
(888) 478-0798

Product: Yukon® Herbicide
EPA Signal Word: Caution
EPA Registration No.: 81880-6-10163

Active Ingredient: *Halosulfuron methyl
Chemical Name: Methyl 3-chloro-5-(4,6-dimethoxypyrimidin-2-ylcarbamoylsulfamoyl)-1-methylpyrazole-4-carboxylate (IUPAC)
Chemical Class: Sulfonylurea

Active Ingredient: Sodium salt of dicamba
Chemical Name: 3,6-Dichloro-*o*-anisic sodium (IUPAC)
Chemical Class: Benzoic Acid

CAS No.: 100784-20-1
CAS No.: 1982-69-1

2. Hazards Identification

Physical Properties

Appearance: Beige granules

Odor: Slight odor

Medical Conditions Likely to be Aggravated by Exposure

A very small percentage of particularly sensitive people may suffer skin or respiratory reactions.

Primary Routes of Exposure

Skin contact, eye contact, inhalation.

Hazardous Decomposition Products

Carbon monoxide (CO), sulphur oxides (SO_x), hydrogen chloride (HCl), nitrogen oxides (NO_x), ammonia (NH₃)

Unusual Fire, Explosion, and Reactivity Hazards

None

3. Composition/Information On Ingredients

INGREDIENT NAME	CAS No.	OSHA – PEL	ACGIH – TLV	NTP/IARC/OSHA CARCINOGEN
Halosulfuron-methyl (12.5%)	100784-20-1	None	None	No
Sodium salt of dicamba (55.0%)	1982-69-0	None	None	No

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

4. First Aid Measures

IF IN EYES:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.• Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">• Call poison control center or doctor immediately for treatment advice.• Remove visible particles from mouth.• Have person rinse mouth thoroughly with water, spit out rinse water.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: 1-888-478-0798.	

5. Fire Fighting Measures

Flash Point

Not applicable.

Appropriate Extinguishing Media

In case of fire, use water, dry chemical, carbon dioxide (CO₂), or foam.

Special Fire Fighting Procedures

Firefighters and others that may be exposed to vapors, mists, dusts, or products of combustion should wear full protective clothing and self-contained breathing apparatus. Equipment should be thoroughly cleaned after use.

Unusual Fire or Explosion Hazards

None

6. Accidental Release Measures

In Case of Spills or Leaks

Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment described in Section 8. Sweep up spill, scoop or vacuum and remove. Flush residual spill area with water. Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush residual spill area with water. Refer to Section 13 for disposal information and Section 15 for reportable quantity information.

7. Handling and Storage

Handling

Avoid contact with eyes, skin, or clothing. Wash hands thoroughly after handling or contact. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Wash contaminated clothing before re-use. Thoroughly clean equipment after use. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Storage

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Store under cool, dry conditions (below 120°F). Do not store under moist conditions.

8. Exposure Controls/Personal Protection

Personal Protective Equipment:

Eye Protection: If there is significant potential for contact, wear dust goggles.

Skin Protection: No special requirement when used as recommended. For repeated or prolonged contact, wear chemical resistant gloves.

Respiratory Protection: No special requirement when used as recommended. If airborne exposure is excessive, wear respirator. Respiratory protection programs must comply with all local, regional, and national regulations.

9. Physical and Chemical Properties

Appearance: Beige granules

Odor: Slight

pH: 6.1 @ 20°C 10 g/l

Density: 0.79 g/cm³; (tap density)

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. Stability and Reactivity

Stability: Stable under normal conditions of handling and storage.

Hazardous decomposition products: Carbon monoxide (CO), sulphur oxides (SO_x), hydrogen chloride (HCl), nitrogen oxides (NO_x), ammonia (NH₃).

Conditions to avoid: Store under cool, dry conditions (below 120°F). Do not store under moist conditions.

11. Toxicological Information

Oral LD₅₀ (Rat, female): >2,606 mg/kg body weight

Dermal LD₅₀ (Rat): >5,000 mg/kg body weight

Acute Inhalation (Rat, 4-hr, dust): >2.17 mg/L

Eye Irritation (Rabbit): Slightly irritating.

Skin Irritation (Rabbit): Slightly irritating

Dermal Sensitization (Guinea Pig): Not a Sensitizer.

12. Ecological Information

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on active ingredient are summarized below.

Aquatic toxicity - fish

Bluegill sunfish (*Lepomis macrochirus*):

Acute toxicity, 96 hours, flow-through, LC₅₀: > 118 mg/L

Practically non-toxic.

Rainbow trout (*Oncorhynchus mykiss*):

Acute toxicity, 96 hours, flow-through, LC₅₀: > 131 mg/L

Practically non-toxic.

Aquatic toxicity - invertebrates

Water flea (*Daphnia magna*):

Acute toxicity, 48 hours, flow-through, LC₅₀: > 107 mg/L

Practically non-toxic.

Aquatic toxicity - algae/aquatic plants

Green algae (*Selenastrum capricornutum*):

Acute toxicity, 120 hours, static, EbC₅₀ (biomass): 5.3 µg/L

Very highly toxic.

Avian toxicity

Mallard duck (*Anas platyrhynchos*):

Dietary toxicity, 5 days, LC₅₀: > 5,620 mg/kg diet

Practically non-toxic.

Bobwhite quail (*Colinus virginianus*):

Dietary toxicity, 5 days, LC₅₀: > 5,620 mg/kg diet

Practically non-toxic.

Arthropod toxicity

Honey bee (*Apis mellifera*):

Contact, 48 hours, LC₅₀: > 100 µg/bee

Practically non-toxic.

13. Disposal Considerations

Product disposal: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

Container disposal: Dispose of empty container in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.

14. Transport Information

DOT Classification

Not regulated

International Maritime Organization

Not regulated

International Civil Aviation Organization

Not regulated

15. Regulatory Information

SARA Title III Classification

Section 302/304:

Not applicable

Section 311/312:

Immediate (acute) health hazard

Delayed (chronic) health hazard

Section 313 chemical(s):

Sodium salt of dicamba (55.0%) CAS#:1982-69-0

Proposition 65

Not Applicable

CERCLA Reportable Quantity (RQ)

None

RCRA Classification

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA Status

Exempt from TSCA

16. Other Information

NFPA Hazard Ratings

Health: 1
Flammability: 0
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Notice: The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.

Prepared By:

Gowan Company
(928) 783-8844

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*Halosulfuron-methyl is manufactured by
Nissan Chemical Industries, Ltd.
Product is protected by
U.S. Patent No. 4,668,277