

1 Identification

· Product identifier

· Trade name: **Yukon® Herbicide**

· Article number: US34608

· CAS Number:

EPA Registration No.: 10163-355

Active Ingredient: Halosulfuron-Methyl (12.5%), CAS:100784-20-1

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

· Application of the substance / the mixture Agricultural herbicide

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Gowan Company, LLC.

P.O. Box 5569

Yuma, Arizona 85366-5569

(928) 783-8844

· Information department: sds@gowanco.com

· Emergency telephone number:

Chemtec® Emergency Telephone 24 - Hours: (Spills, leak or fire) Inside U.S. & Canada: (800) 424-9300

Outside the U.S. & Canada: +011 (703) 527-3887

For medical emergency (ProPharma Group®): (888) 478-0798

2 Hazard(s) identification

· Classification of the substance or mixture



Acute Toxicity - Oral 4 H302 Harmful if swallowed.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard-determining components of labeling:

Halosulfuron-methyl

· Hazard statements

H302 Harmful if swallowed.

· Precautionary statements

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Hazard description:**
CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED. AVOID CONTACT WITH EYES OR CLOTHING.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

HAZARD INDEX:

4 Severe Hazard
3 Serious Hazard
2 Moderate
1 Slight Hazard
0 Minimal Hazard

· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable in US.
- **vPvB:** Not applicable in US.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed.

· **Dangerous components:**

CAS: 1982-69-0	sodium salt of dicamba 3,6-dichloro-o-anisate Aquatic Chronic 3, H412	55.0%
CAS: 100784-20-1	Halosulfuron-methyl ☠ Toxic to Reproduction 1B, H360; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	12.5%

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact 1-888-478-0798 for emergency medical treatment information.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes.
 - Call a poison control center or doctor for treatment advice.

· **After swallowing:**

- Call a 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 a poison control center or doctor.
 - Do not give anything by mouth to an unconscious person.

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- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
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.
 - **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
This product is toxic to non-target vascular plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
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.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

None of the ingredients are listed.

· PAC-2:

None of the ingredients are listed.

· PAC-3:

None of the ingredients are listed.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Avoid contact with eyes or clothing. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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.
 - **Information about protection against explosions and fires:** No special measures required.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
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.
 - **Information about storage in one common storage facility:** Store away from foodstuffs.
 - **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **Additional information:**
The lists that were valid during the creation were used as basis.
CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED. AVOID CONTACT WITH EYES OR CLOTHING.
- **Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
 - **Breathing equipment:** Not required.
 - **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
Chemical-resistant made of any waterproof material
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:**
Applicators and other handlers must wear:
 - Long-sleeved shirt and long pants
 - Shoes plus socks
 - Chemical-resistant gloves (except for applicators using groundboom equipment, pilots, and flaggers).

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- Form: Granulate
- Color: Beige
- Odor: Slightly Vanilla
- Odor threshold: Not determined.

· pH-value at 20 °C (68 °F): 6.6

· Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not determined.

· Decomposition temperature: Not determined.

· Auto igniting: Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

- Lower: Not determined.
- Upper: Not determined.

· Vapor pressure: Not applicable.

· Density at 20 °C (68 °F): 0.656 g/cm³ (5.47432 lbs/gal)

- Relative density: Not determined.
- Vapor density: Not applicable.
- Evaporation rate: Not applicable.

· Solubility in / Miscibility with

· Water: Dispersible.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

- Dynamic: Not applicable.
- Kinematic: Not applicable.

· Solvent content:

· Solids content: 100.0 %

· Other information

No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

· Chemical stability

This product should be stable for at least two years under normal conditions of warehouse storage. Store in a cool, well-ventilated place away from foodstuffs, reducing agents and acids.

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

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

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- **Incompatible materials:** Reducing agents and acids
- **Hazardous decomposition products:**
 - Hydrogen chloride (HCl)
 - Sulfur oxides (SO_x)
 - Carbon monoxide (CO)
 - Nitrogen oxides (NO_x)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral	LD50	>2,606 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>2.17 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** Slightly irritating

- **on the eye:** Slight irritation

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:** Harmful

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

- **NTP (National Toxicology Program)**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

12 Ecological information

- **Toxicity**

This product is toxic to non-target vascular plants. 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 cleaning equipment or disposing of equipment washwaters.

Halosulfuron-methyl is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Other information:**

Aquatic toxicity - fish

Bluegill sunfish (*Lepomis macrochirus*):

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

Practically non-toxic.

Rainbow trout (*Oncorhynchus mykiss*):

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

Practically non-toxic.

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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.

· Ecotoxicological effects:**· Other information:**

This product is toxic to non-target vascular plants. 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 cleaning equipment or disposing of equipment washwaters.

Halosulfuron-methyl is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

· Additional ecological information:**· General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· Waste treatment methods**· Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

· Uncleaned packagings:**· Recommendation:**

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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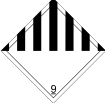

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14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT · ADR, IMDG, IATA 	<p>Void</p> <p>UN3077</p>
<ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA 	<p>Void</p> <p>3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Halosulfuron-methyl)</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Halosulfuron-methyl), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Halosulfuron-methyl)</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT · Class 	<p>Not Regulated</p> <p>Void</p>
<ul style="list-style-type: none"> · ADR, IMDG, IATA 	<div style="display: flex; align-items: center; justify-content: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	<p>9 Miscellaneous dangerous substances and articles</p> <p>9</p>
<ul style="list-style-type: none"> · Packing group · DOT · ADR, IMDG, IATA 	<p>Void</p> <p>III</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	<p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code 	<p>Warning: Miscellaneous dangerous substances and articles</p> <p>90</p> <p>F-A,S-F</p> <p>A</p> <p>SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p>Not applicable</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Excepted quantities (EQ) 	<p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 g</p> <p>Maximum net quantity per outer packaging: 1000 g</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) 	<p>5 kg</p>

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· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (HALOSULFURON-METHYL), 9, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EPA /FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

· **Marketing authorization number:**· **SARA Title III**· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

CAS: 1982-69-0 | sodium salt of dicamba 3,6-dichloro-o-anisate

· **TSCA (Toxic Substances Control Act):**

CAS: 1982-69-0 | sodium salt of dicamba 3,6-dichloro-o-anisate

ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **Proposition 65**· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **TLV (Threshold Limit Value)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

Not applicable

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**

Not applicable

· **Signal word**

(US EPA) CAUTION

· **Hazard-determining components of labeling:**

Halosulfuron-methyl

· **Hazard statements**

Causes eye irritation.

Harmful if swallowed.

Avoid contact with eyes or clothing.

H302 Harmful if swallowed.

· **Precautionary statements**

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Systems Design and Control

· **Contact:** sds@gowanco.com

· **Date of preparation / last revision** 09/21/2022

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Toxic to Reproduction 1B: Reproductive toxicity – Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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