1 Identification

· 1.1 Product identifier
  · Trade name: SANDEA® WG HERBICIDE
    · CAS Number:
      Halosulfuron present as methyl ester (72.60%) : 100784-20-1
      Registration number PCP Registration No.: 31209
      Group 2 Herbicide
    · Application of the substance / the mixture Agricultural herbicide

· 1.3 Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    Registrant:
    Canyon Group L.L.C
    P.O. Box 5569
    Yuma (AZ) 85366-5569

    Formulator:
    Gowan Company
    P.O. Box 5569
    Yuma, Arizona 85366-5569
    (800) 883-1844

  · Information department: sds@gowanco.com

· 1.4 Emergency telephone number:
  Chemtrec® 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 (Prosar®): (888) 478-0798

2 Hazard identification

· 2.1 Classification of the substance or mixture
  · Classification according to Regulation (EC) No 1272/2008

  GHS09 Environment

  Aquatic Acute 1 H400 Very toxic to aquatic life.
  Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

  GHS07

  Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

· 2.2 Label elements
  · Labelling according to Regulation (EC) No 1272/2008
    The product is classified and labeled according to the CLP regulation.
  · Hazard pictograms

  GHS07  GHS09

· Signal word Warning

(Contd. on page 2)
Trade name: SANDEA® WG HERBICIDE

- **Hazard statements**
  H302 Harmful if swallowed.
  H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  P264 Wash thoroughly after handling.
  P270 Do not eat, drink or smoke when using this product.
  P273 Avoid release to the environment.
  P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
  P330 Rinse mouth.
  P391 Collect spillage.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:** Harmful if swallowed. May irritate eyes. Avoid contact with eyes.
- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 2
    - Fire = 0
    - Reactivity = 0

  **HAZARD INDEX:**
  4 Severe Hazard
  3 Serious Hazard
  2 Moderate Hazard
  1 Slight Hazard
  0 Minimal Hazard

- **2.3 Other hazards**
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/Information on ingredients

- **3.2 Chemical characterization: Mixtures**
  - **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**
  - **CAS:** 100784-20-1 Halosulfuron-methyl
  - **Aquatic Acute 1, H400; Aquatic Chronic 1, H410** 72.6% w/w

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **4.1 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.
  - **After inhalation:**
    - Move person to fresh air.
    - If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
    - Call poison control center or doctor for further treatment advice.
Trade name: SANDEA® WG HERBICIDE

- After skin contact:
  • Take off contaminated clothing.
  • Rinse skin immediately with plenty of water for 15-20 minutes.
  • Call a poison control center or doctor for treatment advice.

- 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.
  • 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.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5 Firefighting measures

- 5.1 Extinguishing media
  • Suitable extinguishing agents:
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
  • Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment described in Section 8.
- 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.
- 6.3 Methods and material for containment and cleaning up:
  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.
- 6.4 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.

7 Handling and storage

- 7.1 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: Keep ignition sources away - Do not smoke.
Trade name: SANDEA® WG HERBICIDE

(Contd. of page 3)

- 7.2 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 48.9 °C or 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.
  - 7.3 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.

- 8.1 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:
    When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed
    in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4- 6)], the
    handler PPE requirements may be reduced or modified as specified in the WPS.

- 8.2 Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      The usual precautionary measures for handling chemicals should be followed.
    - Breathing equipment: Not required.
    - Protection of hands:
      Protective gloves
    - Material of gloves Chemical-resistant made of any waterproof material
    - 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: Goggles recommended during refilling.
    - Body protection:
      Protective work clothing
      - Long-sleeved shirt and long pants or coveralls
      - Chemical-resistant gloves made of any waterproof material
      - Shoes plus socks

9 Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Granulate
      - Color: Beige
      - Odor: Slightly Vanilla

(Contd. on page 5)
### 10 Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:**
    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.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**
  - Store under cool, dry conditions (below 48.9 °C or 120°F). Do not store under moist conditions.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity:**
    Harmful if swallowed.

(Contd. on page 6)
Trade name: SANDEA® WG HERBICIDE

<table>
<thead>
<tr>
<th></th>
<th>LD/LC50 values that are relevant for classification:</th>
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<tbody>
<tr>
<td>Oral</td>
<td>LD50 1287 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50 &gt;5000 mg/kg (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h &gt;5.7 mg/l (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - on the skin: Slightly irritating
  - on the eye: Moderately Irritating

- **Sensitization:** Based on available data, the classification criteria are not met.

- **Other information (about experimental toxicology):**
  Halosulfuron-methyl, the active herbicidal ingredient in Sandea herbicide, is considered to be practically nontoxic orally or by inhalation and no more than slightly toxic dermally. It is slightly irritating to eyes and essentially nonirritating to the skin. Halosulfuron-methyl did not produce skin allergy in the guinea pig.

- **Additional toxicological information:**
  - 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.

12 Ecological information

- **12.1 Toxicity**
  Ecotoxicity data shown is for the active ingredient, halosulfuron-methyl.
  48-hr EC50 Daphnia magna: >107 mg/L; practically nontoxic.
  96-hr LC50 Bluegill sunfish: >118 mg/L; practically nontoxic.
  96-hr LC50 Rainbow trout: >131 mg/L; practically nontoxic.
  5-day EC50 Algae (Selenastrum capricornutum): 0.0041/L; very highly toxic.

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

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

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

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

- **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.

- **12.5 Results of PBT and vPvB assessment**
  - PBT: Not applicable.
  - vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**

  - **Recommendation:**
    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, provincial, or local procedures.
**Safety Data Sheet**

(according to HPR, Schedule 1)

**Trade name:** SANDEA® WG HERBICIDE

(Contd. of page 6)

**14 Transport information**

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>DOT/TDG, ADR, ADN, IMDG, IATA</th>
<th>Not regulated</th>
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<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>ADR, ADN, IMDG, IATA</td>
<td>Void</td>
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<tr>
<td>14.3 Transport hazard class(es)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.3 DOT/TDG (Transport dangerous goods):</td>
<td>Néant</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>ADR, ADN, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>DOT/TDG</td>
<td>Néant</td>
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<tr>
<td>14.5 Environmental hazards:</td>
<td>Product contains environmentally hazardous substances: Halosulfuron-methyl</td>
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<tr>
<td>14.6 Special precautions for user</td>
<td>Not applicable</td>
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<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>Not regulated</td>
<td></td>
</tr>
</tbody>
</table>

**15 Regulatory information**

| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture | |
| SARA Title III | |
| Section 355 (extremely hazardous substances): | None of the ingredients are listed. |
| Section 313 (Specific toxic chemical listings): | None of the ingredients are listed. |
| TSCE (Toxic Substances Control Act): | None of the ingredients are listed. |
| Canadian substance listings: | |
| Canadian Domestic Substances List (DSL) | None of the ingredients are listed. |
| Canadian Ingredient Disclosure list (limit 0.1%) | None of the ingredients are listed. |

(Contd. on page 8)
Trade name: SANDEA® WG HERBICIDE

- Canadian Ingredient Disclosure list (limit 1%)
  None of the ingredients are listed.

- Labelling according to Regulation (EC) No 1272/2008 Not applicable
  - Hazard pictograms Not applicable
  - Signal word (US EPA) CAUTION
  - Hazard statements HAZARDS TO HUMANS AND DOMESTIC ANIMALS

- National regulations:
  - Additional classification according to Decree on Hazardous Materials:
    Read the label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

  There are Canada-specific environmental requirements for handling, use, and disposal of this pest control product that are indicated on the label.

- Other regulations, limitations and prohibitive regulations
  SARA Title III Classification
  - Section 302/304: Not applicable
  - Section 311/312: Immediate (acute) health hazard
    Delayed (chronic) health hazard
  - Section 313 chemical(s): Not applicable

  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

  DSL
  - Exempt from DSL

- 15.2 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.

- Relevant phrases
  - H400 Very toxic to aquatic life.
  - H410 Very toxic to aquatic life with long lasting effects.

- Department issuing SDS: Supply Chain

- Contact: sds@gowanco.com

- Date of the latest revision of the safety data sheet 07/02/2019 /

- Abbreviations and acronyms:
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals

(Contd. on page 9)
Trade name: SANDEA® WG HERBICIDE

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
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<tbody>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (division of the American Chemical Society)</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association (USA)</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

* Sources

Sandea® is a registered trademark of Gowan Company, LLC

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

* Data compared to the previous version altered.