

ting date 06/25/2014 Revision: 06/25/2014

## 1 Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
  - · Trade name: Sandea® Herbicide
    - CAS Number: Halosulfuron present as methyl ester (72.60%): 100784-20-1
    - Registration number PCP Registration No.: 31209
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
  - · Sector of Use Agriculture
  - · Application of the substance / the mixture Group 2 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

- · Further information obtainable from: 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 Hazards identification

- 2.1 Classification of the substance or mixture This SDS is based classification according to WHMIS.
  - · Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- Additional information:

(Contd. on page 2)

CA/EN

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

(Contd. of page 1)

Physical Properties

Appearance: Beige granules Odor: Scorched vanilla odor

Symptoms of Acute Exposure

Not available

Medical Conditions Likely to be Aggravated by Exposure

Sandea herbicide contains less than 1.0% sodium sulfite. In sulfite-sensitive individuals, skin reactions have been reported following dermal exposures, and respiratory reactions have been reported on ingestion of food, or on ingestion or inhalation of medications which contain related sulfiting agents (bisulfites or metabisulfites) as preservatives. Individuals with asthma may be more prone to these types of reactions.

Primary Routes of Exposure Inhalation and skin contact

Hazardous Decomposition Products

None known

Unusual Fire, Explosion, and Reactivity Hazards

None known

### · 2.2 Label elements

- · Labelling according to EU guidelines: N/A
  - · Hazard-determining components of labelling:

Halosulfuron present as methyl ester

Information concerning particular hazards for human and environment:

POISON / EYE IRRITANT

KEEP OUT OF REACH OF CHILDREN

- · 2.3 Other hazards
  - · Results of PBT and vPvB assessment
    - · **PBT**: Not applicable.
    - · vPvB: Not applicable.

## 3 Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
  - · Description: Mixture of substances listed below with nonhazardous additions.
  - · Dangerous components:

100784-20-1 Halosulfuron present as methyl ester

₩ N R50/53 72.6%

· 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-

(Contd. on page 3)

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

(Contd. of page 2)

mouth if possible.

• Call poison control center or doctor for further treatment advice.

### · 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, 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

(Contd. on page 4)

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

(Contd. of page 3)

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 fire and explosion protection: Keep ignition sources away Do not smoke.
- · 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 this product away from food or feed.
- · 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 facilities: No further data; see item 7.
- · 8.1 Control parameters
  - · Ingredients 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 are to be adhered to when handling chemicals.

- · Respiratory protection: 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 trough 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

CA/EN

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

(Contd. of page 4)

9 Physical and chemical propert	ies
· 9.1 Information on basic physical an	nd chemical properties
General Information	a chemical properties
· Appearance:	
· Form:	Granulate
· Colour:	Beige
· Odour:	Slightly Vanilla
· Odour 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.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapour pressure:	Not applicable.
Density at 20 °C (68 °F):	$0.656 \ g/cm^3 (5.474 \ lbs/gal)$
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
· water:	Dispersible.
· Partition coefficient (n-octanol/wa	tter): Not determined.
· Viscosity:	
Dynamic:	Not applicable.
· Kinematic:	Not applicable.
9.2 Other information	No further relevant information available.

# 10 Stability and reactivity

- · 10.1 Reactivity
- · 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: Reducing agents and acids

(Contd. on page 6)

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

(Contd. of page 5)

### 11 Toxicological information

- · 11.1 Information on toxicological effects
  - · Acute toxicity:

LD/LC50 values relevant for classification:		
Oral	LD50	1287 mg/kg (ratto)
D 1	T D 50	5000 (1)

Dermal LD50 >5000 mg/kg (ratto)
Inhalative LC50/4 h >5.7 mg/l (ratto)

Primary irritant effect:

- on the skin: Slightly irritatingon the eye: Moderately Irritating
- · Sensitization: No sensitizing effects known.
- · 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.

## 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.

(Contd. on page 7)

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

(Contd. of page 6)

### · Uncleaned packaging:

· Recommendation:

Dispose of empty container in a sanitary landfill, or by incineration, or, if allowed by provincial 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.

14.1 UN-Number	
· TDG, DOT, ADN, IMDG, IATA	Not regulated
14.2 UN proper shipping name	
· TDG, DOT, ADN, IMDG	$Void \cdot$
IATA	Néant
· 14.3 Transport hazard class(es)	
· 14.3 TDG, DOT, ADN, IMDG, IATA	
Class	Void
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances
	Halosulfuron present as methyl ester
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex	x II of
MARPOL73/78 and the IBC Code	Not applicable.
· UN ''Model Regulation'':	Not regulated

# 15 Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - · National regulations:
    - · 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 Quantitiy (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

(Contd. on page 8)

Printing date 06/25/2014 Revision: 06/25/2014

Trade name: Sandea® Herbicide

(Contd. of page 7)

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

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### · Department issuing MSDS: Supply Chain

### · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

#### · 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

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