

**1 Identification**

· **Product identifier**

· **Trade name:** *Sonalan® 10G Herbicide*

*EPA Registration No.: 10163-355*

· **CAS Number:** *Active Ingredient: Ethalfluralin (10.0%), CAS:55283-68-6*

· **Application of the substance / the mixture** *Agricultural herbicide*

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

*Gowan Company*

*P.O. Box 5569*

*Yuma, Arizona 85366-5569*

*(928) 783-8844*

· **Information department:** *sds@gowanco.com*

· **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(s) identification**

· **Classification of the substance or mixture**



*GHS08 Health hazard*

*Carc. 1A H350 May cause cancer.*



*GHS05 Corrosion*

*Eye Dam. 1 H318 Causes serious eye damage.*

*Aquatic Acute 2 H401 Toxic to aquatic life.*

· **Label elements**

· **GHS label elements**

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

· **Hazard pictograms**



*GHS05 GHS08*

· **Signal word** *Danger*

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

*Ethalfluralin technical*

· **Hazard statements**

*Causes serious eye damage.*

*May cause cancer.*

*Toxic to aquatic life.*

· **Precautionary statements**

*Wear eye protection / face protection.*

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 1)

*Avoid release to the environment.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Immediately call a POISON CENTER/doctor.*

*Store locked up.*

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

**· Hazard description:**

*Corrosive • Causes Irreversible Eye Damage • Harmful If Inhaled Do not get in eyes or on clothing. Avoid breathing dust. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals.*

**· Classification system:**

**· NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 1

**HAZARD INDEX:**

4 Severe Hazard

3 Serious Hazard

2 Moderate Hazard

1 Slight Hazard

0 Minimal Hazard

**· HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 1

**HAZARD INDEX:**

4 Severe Hazard

3 Serious Hazard

2 Moderate Hazard

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:** Mixture of the substances listed below with nonhazardous additions.

**· Dangerous components:**

55283-68-6	Ethalfluralin technical 	10.0%
------------	-----------------------------	-------

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 2)

## 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.

#### · 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.

#### · 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.

#### · 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**

Probable mucosal damage may contraindicate the use of gastric lavage.

## 5 Fire-fighting measures

### · Extinguishing media

#### · Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

### · Special hazards arising from the substance or mixture

No further relevant information available.

### · Advice for firefighters

Keep people away. Isolate fire and deny unnecessary entry. This material does not burn. Fight fire for other material that is burning. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.

- **Protective equipment:** Wear self-contained respiratory protective device.

## 6 Accidental release measures

### · Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

### · Environmental precautions:

This product is toxic to fish and aquatic invertebrates. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. Runoff or erosion from treated areas may be hazardous to fish in neighboring areas.

### · Methods and material for containment and cleaning up:

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### · 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.

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 3)

## 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
  - **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
    - **Information about storage in one common storage facility:** Store away from foodstuffs.
    - **Further information about storage conditions:** Store in a dry place.
  - **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.
- **Exposure controls**
  - **Personal protective equipment:**
    - **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.
      - 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.
      - Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
    - **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
    - **Protection of hands:**



Protective gloves

- **Material of gloves** Chemical-resistant made of any waterproof material

(Contd. on page 5)

US

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 4)

· **Eye protection:**

Tightly sealed goggles

· **Body protection:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

- **Form:** Granulate
- **Color:** Yellow to green
- **Odor:** Aromatic
- **Odor threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** 6.5· **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.· **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:** Not determined.

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

· **Solubility in / Miscibility with**· **Water:** Insoluble.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

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

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 5)

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

## 10 Stability and reactivity

- **Reactivity** *No further relevant information available.*
- **Chemical stability** *Stable under normal conditions*
  - **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known.*
- **Conditions to avoid** *Active ingredient decomposes at elevated temperatures.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4 h	>5.0 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** *Prolonged exposure not likely to cause significant skin irritation.*

- **on the eye:**

*May cause moderate eye irritation.*

*May cause moderate corneal injury.*

*Effects may be slow to heal.*

*Solid or dust may cause irritation due to mechanical action.*

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

- **Additional toxicological information:**

*The product shows the following dangers according to internally approved calculation methods for preparations:*

*Irritant*

- **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**

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 6)

*This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or 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 or rinsate. Runoff or erosion from treated areas may be hazardous to fish in neighboring areas.*

- **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.
- **Additional ecological information:**
  - **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **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:**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance
- **Uncleaned packagings:**
  - **Recommendation:**

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. If not emptied in this manner, the bag may be considered an acute hazardous waste and must be disposed of in accordance with local, state and federal regulations. When completely empty, offer for recycling if available, or dispose in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## \* 14 Transport information

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, ADN</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p>Not regulated<br/> UN3077<br/> Void</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR, ADN, IATA</b></li> <li>· <b>IMDG</b></li> </ul>         | <p>Void<br/> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,<br/> N.O.S. (Ethalfluralin technical), MARINE POLLUTANT</p> |

(Contd. on page 8)

US

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 7)

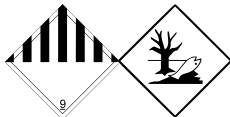
· **Transport hazard class(es)**

· **ADR, ADN, IATA**

· **Class**

Void

· **IMDG**



· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **Packing group**

· **ADR, IATA**

Void

· **IMDG**

III

· **Environmental hazards:**

Product contains environmentally hazardous substances:

Ethalfuralin technical

· **Marine pollutant:**

Symbol (fish and tree)

· **Special precautions for user**

Not applicable

· **EMS Number:**

F-A,S-F

· **Stowage Category**

A

· **Stowage Code**

SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable

· **Transport/Additional information:**

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**

Not regulated

## 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.

· **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.

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 8)

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

55283-68-6 Ethalfluralin technical

· **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 established by ACGIH)**

None of the ingredients are listed.

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

None of the ingredients are listed.

· **GHS label elements**

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

· **Hazard pictograms**

Not applicable

· **Signal word**

(US EPA) DANGER/PELIGRO

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

Ethalfluralin technical

· **Hazard statements**

Causes serious eye damage.

May cause cancer.

Toxic to aquatic life.

· **Precautionary statements**

Wear eye protection / face protection.

Avoid release to the environment.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER/doctor.

Store locked up.

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

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA

Printing date 10/24/2016

Reviewed on 10/24/2016

**Trade name: Sonalan® 10G Herbicide**  
**EPA Registration No.: 10163-355**

(Contd. of page 9)

- **National regulations:**
- **Additional classification according to Decree on Hazardous Materials:**  
*Carcinogenic hazardous material group III (dangerous).*
- **Information about limitation of use:**  
*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.*
- **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:** *Supply Chain*
- **Contact:** *sds@gowanco.com*
- **Date of preparation / last revision** *10/24/2016 / 3*
- **Abbreviations and acronyms:**  
*ADR: Accord européen sur le transport 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*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*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)*  
*HMIS: Hazardous Materials Identification System (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*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*  
*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*  
*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*  
*Skin Sens. 1B: Skin sensitisation – Category 1B*  
*Carc. 1A: Carcinogenicity – Category 1A*  
*Carc. 2: Carcinogenicity – Category 2*  
*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*  
*Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2*  
*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*
- **Sources** *Sonalan® is a registered trademark of Gowan Company LLC.*
- **\* Data compared to the previous version altered.**

US