

# SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



## 1. IDENTIFICATION

**PRODUCT NAME:** Alligare Fluridone RTU

**DESCRIPTION:** A liquid herbicide.

**EPA Reg. No.:** 81927-51

**COMPANY IDENTIFICATION:**

Alligare, LLC

13 N. 8<sup>th</sup> Street

Opelika, AL 36801

## 2. HAZARD IDENTIFICATION

**WARNING**

May cause slight transient eye irritation

Harmful to aquatic life

May cause slight skin irritation with prolonged exposure

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Fluridone	1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone	59756-60-4	3.8%
Alcohol	Proprietary	Proprietary	5-10%

## 4. FIRST AID MEASURES

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**IF ON SKIN OR CLOTHING:** Call a doctor or poison control center if you feel unwell. If skin irritation occurs: Get medical advice/attention.

## 5. FIREFIGHTING MEASURES

**Flash Point (PMCC):** N/A

**Flammable Limits (LFL-UFL):** Not determined

**Fire and Explosion Hazards:** Thermal decomposition may release irritating gases and fumes (see Section 10.)

**Extinguishing Medium:** Water spray, foam, CO<sub>2</sub>, or dry chemical.

**Fire Fighting Equipment:** Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

**Fire Fighting Instructions:** Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

**Hazardous Combustion Products:** Hydrogen chloride, oxides of nitrogen, chlorinated pyridine, phosgene.

**NFPA Ratings:** Health – 1 / Flammability – 1 / Reactivity - 0

## 6. ACCIDENTAL RELEASE MEASURES

For Chemical Emergencies (spill, leak, fire, exposure, or accident) call CHEMTREC at 1-800-434-9300 or 1-703-527-3887 if calling from outside of the U.S.

Clean up spills immediately observing the precautions in Section 8 of this MSDS. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Prevent material from contaminating soil or from entering sewage and drainage systems and bodies of water.

Absorb small spills with dry material and discard in a disposal container. Stop the leak, if possible. Ventilate the space involved. Construct a dike to prevent spreading and prevent waterway contamination. Collect run-off water and transfer to drums or tanks for later disposal.

## 7. HANDLING AND STORAGE

**Keep out of reach of children and animals.**

**Handling:** Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Handle and open container in a manner as to prevent spillage.

**Storage:** Keep container stored with nozzle in closed position. Store product in original container in a safe place away from direct sunlight. Keep from freezing.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

**Protective Clothing:** Shirt and long pants and shoes plus socks.

**General:** Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Tan Viscous Liquid

**Odor:** Musty, menthol-like

**Specific Gravity:** 1.07 g/mL

**pH:** 6.0 – 6.5

**Solubility:** Dispersible in Water

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** Freezing temperatures.

**CHEMICAL STABILITY:** Stable but may decompose if burned.

**SUBSTANCES TO AVOID:** None known.

**HAZARDOUS REACTIONS:** This product is chemically stable. No hazardous reactions if stored and handled as prescribed/indicated.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None when stored and handled as prescribed. Thermal decomposition may release harmful vapors.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**ORAL TOXICITY (rat LD<sub>50</sub>):** > 10,000 mg/kg

**DERMAL TOXICITY (rat LD<sub>50</sub>):** > 5,000 mg/kg

**INHALATION TOXICITY (rat LC<sub>50</sub>):** > 4.12 mg/L (4-hour)

**EYE IRRITATION:** Rabbit – Mildly irritating

**SKIN IRRITATION:** Rabbit – Mildly irritating

**SKIN SENSITIZATION:** Guinea Pig – Not a contact sensitizer

**CARCINOGENICITY:**

**EPA:** Not Listed

**ACGIH:** Not Listed

**NTP:** Not Listed

**IARC:** Not Listed

**OSHA:** Not Listed

**MUTAGENIC TOXICITY:** No evidence of mutagenic effects during *in vivo* or *in vitro* studies.

**REPRODUCTIVE TOXICITY:** No evidence in animal studies.

## 12. ECOLOGICAL INFORMATION

Do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Trees and shrubs growing in water treated with Alligare Fluridone RTU may occasionally develop chlorosis.

**The following information is for the active ingredient, Fluridone:**

**AQUATIC TOXICITY**

Rainbow Trout (96-hr LC<sub>50</sub>): 11.7 mg/L

Daphnia (48-hr LC<sub>50</sub>): 6.3 ppm

**AVIAN TOXICITY**

Bobwhite Quail (Oral LD<sub>50</sub>): > 2,000 mg/kg

**OTHER TOXICITY:**

Bees (Oral and Contact 48-hr LD<sub>50</sub>): > 362 µg/bee

Earthworms (14-d LC<sub>50</sub>): > 102 ppm

## 13. DISPOSAL CONSIDERATIONS

**Do not contaminate water, food or feed by disposal.**

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. 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.

**CONTAINER DISPOSAL:** Non-refillable container, do not reuse or refill this container. Refer to the product label for specific disposal instructions.

## 14. TRANSPORT INFORMATION

**US DOT:**

Not regulated by DOT.

**IATA (Shipped by Air):**

Not classified as a Dangerous Good under IATA.

**IMO (Shipped by Water):**

Not classified as a Dangerous Good under IMO.

## 15. REGULATORY INFORMATION

### FIFRA –

This chemical is a pesticide product registered by the Environmental Protection Agency 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. The following is the hazard information as required on the pesticide label:

#### PRECAUTIONARY STATEMENTS

##### CAUTION

##### ENVIRONMENTAL HAZARDS

Do not apply directly to water except as specified on this label. Do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Apply this product in calm weather when rain is not predicted for the next 24 hours to help ensure that the pesticide is not moved out of the treatment area. Trees and shrubs growing in water treated with Alligare Fluridone RTU may occasionally develop chlorosis.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

#### SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

#### SARA Title III – Section 311/312 Hazard Categories

Immediate, Delayed

#### SARA Title III – Section 312 Threshold Planning Quantity

N/A

#### SARA Title III – Section 313 Reportable Ingredients

None

### CERCLA –

None

### CALIFORNIA PROP 65 STATUS –

This product does not contain any chemical known to the state of California to cause cancer or reproductive toxicity.

### CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## 16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 2.1

Effective Date: 05/26/16

# SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



## 1. IDENTIFICATION

**PRODUCT NAME:** Alligare Fluridone

**DESCRIPTION:** A liquid herbicide.

**EPA Reg. No.:** 81927-45

**COMPANY IDENTIFICATION:**

Alligare, LLC

13 N. 8<sup>th</sup> Street

Opelika, AL 36801

## 2. HAZARD IDENTIFICATION

### WARNING

Harmful if swallowed, in contact with skin, or if inhaled

(H302+H312+H332)

Causes eye irritation (H320)

Toxic to aquatic life (H401)



### HAZARD CLASSIFICATION

**Health Hazards**

Acute toxicity, oral

Acute toxicity, inhalation

Acute toxicity, dermal

Serious eye damage / eye irritation

**Category**

4

4

4

2B

**Physical Hazards**

N/A

**Category**

-

**Environmental Hazards**

Hazardous to the aquatic environment, acute

**Category**

2

### HAZARDS NOT REQUIRING CLASSIFICATION

None.

### PRECAUTIONARY STATEMENTS

Use only outdoors or in a well-ventilated area. (P271)

Avoid breathing mist/vapors/spray. (P261)

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

Wash hands and skin thoroughly after handling. (P264)

Wear protective gloves / protective clothing. Refer to Section 8 for specific PPE requirements. (P280)

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. (P305+P351+P338+P337+P313)

**IF ON SKIN:** Wash with plenty of water. Call a Poison Center/doctor if you feel unwell. Specific treatment (see Section 4 of this document). Take off contaminated clothing and wash it before reuse. (P302+P352+P312+P321+P362+P364)

**IF SWALLOWED:** Call a Poison Center/doctor if you feel unwell. Rinse mouth. (P301+P312+P330)

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a Poison Center/doctor if you feel unwell. (P304+P340+P312)

Avoid release to the environment not in accordance with the product label. (P273)

Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Common Name**

Fluridone

**Chemical Name**

1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone

**CAS #**

59756-60-4

**Composition**

41.7%

#### 4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

**IF IN EYES:** 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 eye. If eye irritation persists: Get medical advice / attention.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. 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.

**IF ON SKIN OR CLOTHING:** Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Call a doctor or poison control center if you feel unwell.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a doctor or poison control center if you feel unwell.

#### 5. FIREFIGHTING MEASURES

**Flash Point (SCC):** 93.3°C (200°F)

**Flammable Limits (LFL-UFL):** Not determined

**Fire and Explosion Hazards:** Product will not burn unless sufficient water is evaporated. Once sufficient water has been evaporated, this product will exhibit flammability characteristics of the organic portion of the formulation.

**Extinguishing Medium:** Use extinguishing media as appropriate for the combustibles involved in the fire.

**Fire Fighting Equipment:** Firefighters should be equipped with self-contained positive pressure breathing apparatus and turnout gear.

**Fire Fighting Instructions:** Use water spray to cool containers. If area is heavily exposed to fire and if conditions permit, allow fire to burn itself out since water may increase the area contaminated.

**Hazardous Combustion Products:** May produce fumes containing chlorine, fluorine and oxides of nitrogen.

**NFPA Ratings:** Health – 1 / Flammability – 1 / Reactivity – 0

#### 6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this SDS. For small spills, cover spill with absorbent material and shovel into suitable containers for disposal. For large spills, dike spill and prevent material from entering sewers, waterways or low areas. Recover as much material as possible for reuse, and then handle the remaining material as a small spill using the instructions above.

#### 7. HANDLING AND STORAGE

**Handling:** Avoid breathing of spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**Storage:** Store in original container only. Do not store near feed or foodstuffs. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

**Protective Clothing:** Use NIOSH approved respirator, chemical goggles and a full face shield, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride and a protective suit.

**General:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Off white opaque viscous liquid	<b>pH:</b>	5.91
<b>Odor:</b>	slightly faint	<b>Kinematic viscosity:</b>	667.6 cP @ 20°C; 241.5 cP @ 40°C
<b>Melting/freezing point:</b>	Not available	<b>Solubility:</b>	Dispersible
<b>Boiling point/Boiling range:</b>	Not available	<b>Partition coefficient:</b>	Not available
<b>Flammability:</b>	Not available	<b>Vapor pressure:</b>	Not available
<b>Flammability limits (upper/lower):</b>	Not available	<b>Density:</b>	1.164 g/mL (9.71 lbs/gal)
<b>Flash point:</b>	Not available	<b>Relative vapor density:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available	<b>Particle characteristics:</b>	Not available
<b>Decomposition temperature:</b>	Not available		

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under normal use and storage conditions.

**CONDITIONS TO AVOID:** Freezing temperatures.

**SUBSTANCES TO AVOID:** Oxidizing agents.

**INCOMPATIBILITY WITH OTHER MATERIALS:** None known.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**ORAL TOXICITY (rat LD<sub>50</sub>):** 1,750 mg/kg

**DERMAL TOXICITY (rat LD<sub>50</sub>):** > 2,000 mg/kg

**INHALATION TOXICITY (rat LC<sub>50</sub>):** > 2.02 mg/L

**EYE IRRITATION:** Rabbit – Moderately irritating

**SKIN IRRITATION:** Rabbit – Non-irritating

**SKIN SENSITIZATION:** Not a contact sensitizer

**CARCINOGENICITY:**

**EPA:** Not Listed

**ACGIH:** Not Listed

**NTP:** Not Listed

**IARC:** Not Listed

**OSHA:** Not Listed

**MUTAGENIC TOXICITY:** No data available.

**REPRODUCTIVE TOXICITY:** No data available.

## 12. ECOLOGICAL INFORMATION

**The following information is for the active ingredient, Fluridone:**

Follow use directions carefully so as to minimize adverse effects on nontarget organisms. Do not contaminate water when disposing of equipment washwaters. Trees, turf, and shrubs growing in water treated with Alligare Fluridone may occasionally develop chlorosis. Do not apply in tidewater/brackish water. Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment site, for example, shallow shoreline areas.

**AQUATIC TOXICITY**

Rainbow Trout (96-hr LC<sub>50</sub>): 7.7 mg/L

Sheepshead Minnow (LC<sub>50</sub>): 10.7-16.7 mg/L

Daphnia (48-hr EC<sub>50</sub>): 3.6 mg/L

## 13. DISPOSAL CONSIDERATIONS

**Do not contaminate water, food or feed by disposal.**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container, do not reuse or refill this container. Refer to product label for specific disposal instructions.

## 14. TRANSPORT INFORMATION

UN Number:	Not regulated
Proper Shipping Name:	Not regulated
Transport Hazard Class:	Not applicable
Packing Group:	Not applicable
Hazard Zone:	Not applicable
Marine Pollutant:	No
Hazardous Substance RQ:	None
Labels / Placards:	US-DOT: Not regulated for domestic ground transportation IMDG, IATA: Not regulated for transport under IMDG/IATA regulations.
Emergency Guide:	Not applicable

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## 15. REGULATORY INFORMATION

### FIFRA –

This chemical is a pesticide product registered by the Environmental Protection Agency 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. The following is the hazard information as required on the pesticide label:

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed, absorbed through skin, or if inhaled. Causes moderate eye irritation. Avoid breathing of spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

#### ENVIRONMENTAL HAZARDS

Do not apply to water except as specified on the label. Follow use directions carefully so as to minimize adverse effects on non-target organisms. Do not contaminate water when disposing of equipment washwaters. Trees, turf, and shrubs growing in water treated with this product may occasionally develop chlorosis. Do not apply in tidewater/brackish water. Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment side, for example, shallow shoreline areas.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow to come in contact with oxidizing agents, as Hazardous Chemical Reactions may occur.



## 15. REGULATORY INFORMATION (cont.)

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

### **SARA Title III – Section 302 Extremely Hazardous Substances**

Not listed

### **SARA Title III – Section 311/312 Hazard Categories**

Immediate, Delayed

### **SARA Title III – Section 312 Threshold Planning Quantity**

N/A

### **SARA Title III – Section 313 Reportable Ingredients**

None

### **CERCLA –**

None Listed

### **CALIFORNIA PROP 65 STATUS –**

This product does not contain any chemical known to the state of California to cause cancer or reproductive toxicity.

### **CANADA –**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## 16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 3.0

Effective Date: 07/09/2018



# SAFETY DATA SHEET



## Avast!® SC

### Section 1. Identification

**GHS product identifier** : Avast!® SC  
**Other means of identification** : Not available.

**EPA Registration No.** : 67690-30

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
[www.sepro.com](http://www.sepro.com)

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : ACUTE TOXICITY (inhalation) - Category 4  
EYE IRRITATION - Category 2B  
AQUATIC HAZARD (ACUTE) - Category 2  
AQUATIC HAZARD (LONG-TERM) - Category 2

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : H332 - Harmful if inhaled.  
H320 - Causes eye irritation.  
H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements**

## Section 2. Hazards identification

<b>Prevention</b>	: P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid accidental release to the environment. P261 - Avoid breathing vapor. P264 - Wash hands thoroughly after handling.
<b>Response</b>	: P391 - Collect spillage. P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

Ingredient name	%	CAS number
Proprietary ingredient 1	50 - 60	-
Fluridone	42	59756-60-4
Proprietary ingredient 2	1 - 5	-
Proprietary ingredient 3	1 - 5	-
Proprietary ingredient 4	0.01 - 0.1	-
Proprietary ingredient 5	0.01 - 0.1	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Skin contact</b>	: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.  
**Inhalation** : Harmful if inhaled.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.  
**Specific treatments** : No specific treatment.  
**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.  
**Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities. Collect spillage.

### Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid accidental release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Fluridone Proprietary ingredient 2	None. AIHA WEEL (United States, 10/2011). TWA: 10 mg/m <sup>3</sup> 8 hours.
Proprietary ingredient 3	None.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

Physical state	: Liquid. [Opaque.]
Color	: Light tan to gray.
Odor	: Slight.
Odor threshold	: Not available.
pH	: 8.45
Melting point	: Not available.
Boiling point	: 100°C (212°F)
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: 0.31 kPa (2.3 mm Hg) [room temperature]
Vapor density	: Not available.
Relative density	: 1.15
Solubility	: Not available.
Solubility in water	: Dispersible in water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (room temperature): 7.8 cm <sup>2</sup> /s (780 cSt)
Flow time (ISO 2431)	: Not available.

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid freezing.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Avast!® SC	LC50 Inhalation Dusts and mists	Rat	>2.09 mg/L	4 hours
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Avast!® SC	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Avast!® SC	skin	Guinea pig	Not sensitizing

#### Mutagenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Carcinogenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Reproductive toxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Teratogenicity

There is no data available.

#### Neurotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Specific target organ toxicity (single exposure)

There is no data available.

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : Harmful if inhaled.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

## Section 11. Toxicological information

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.

#### Long term exposure

Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.

#### Potential chronic health effects

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L	Daphnia - Daphnia magna	48 hours
	LC50 8 mg/L	Crustaceans - Eucyclops sp.	48 hours
Proprietary ingredient 2	LC50 >5.2 mg/L	Fish - Cyprinodon variegatus	96 hours
	LC50 >6.5 mg/L	Fish - Pimephales promelas	96 hours
	Chronic NOEC 0.84 mg/L	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.43 mg/L	Fish - Oncorhynchus tshawytscha	75 days
	Acute EC50 >110 mg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1020 mg/L Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 710 mg/L Fresh water	Fish - Pimephales promelas	96 hours

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low
Proprietary ingredient 2	-1.07	-	low

### Mobility in soil







Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluridone)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluridone)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluridone)
Transport hazard class(es)	9  	9  	9  
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.

AERG : 171

### Additional information

- DOT Classification** : Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

## Section 14. Transport information

**IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** Proprietary ingredient 4  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone	No.	No.	No.	Yes.	No.
Proprietary ingredient 2	No.	No.	No.	Yes.	No.
Proprietary ingredient 3	No.	No.	No.	Yes.	No.

### SARA 313

There is no data available.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Proprietary ingredient 2

**Pennsylvania** : The following components are listed: Proprietary ingredient 2

## Section 15. Regulatory information

### California Prop. 65

No products were found.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (inhalation) - Category 4	On basis of test data
EYE IRRITATION - Category 2B	On basis of test data
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

### History

**Date of issue mm/dd/yyyy** : 06/30/2017  
**Date of previous issue** : 07/15/2015  
**Version** : 3  
**Prepared by** : KMK Regulatory Services Inc.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# MATERIAL SAFETY DATA SHEET

Emergency Call: 1-800-858-7378 (NPIC)

Effective Date: May 3, 2012

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Alligare Fluridone Granule

**DESCRIPTION:** A granular herbicide.

**EPA Reg. No.:** 81927-50

**COMPANY IDENTIFICATION:**

Alligare, LLC

13 North 8<sup>th</sup> Street

Opelika, AL 36801

## 2. HAZARD IDENTIFICATION

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS:** CAUTION Harmful if swallowed. Causes moderate eye irritation.

**ENVIRONMENTAL HAZARDS:** Trees and shrubs growing in water treated with this product may occasionally develop chlorosis. Do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Follow use directions carefully so as to minimize adverse effects on non-target organisms.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Fluridone	1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone	59756-60-4	5%

## 4. FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time or your poison control center at 1-800-222-1222.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip 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.

**IF IN EYES:** 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 eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** 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.

**IF INHALED:** 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 a poison control center or doctor for further treatment advice.

## 5. FIRE-FIGHTING MEASURES

**Flash Point (SCC):** 200°F (93.3°C)

**Flammable Limits (LFL-UFL):** Not Determined

**Fire and Explosion Hazards:** Thermal decomposition may release irritating gases and fumes (see Section 10).

**Extinguishing Medium:** Use extinguishing media appropriate for combustibles involved in fire.

**Fire Fighting Equipment:** Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

**Fire Fighting Instructions:** Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Keep containers and storage vessels involved in fire cooled with water spray.

**NFPA Ratings:** Health – 1 / Flammability – 0 / Reactivity - 0

## 6. ACCIDENTAL RELEASE MEASURES

For Chemical Emergencies (spill, leak, fire, exposure, or accident) call CHEMTREC at 1-800-434-9300 or 1-703-527-3887 if calling from outside of the U.S. Clean up spills immediately observing the precautions in Section 8 of this MSDS. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Prevent material from contaminating soil or from entering sewage and drainage systems and bodies of water.

Do not wash small spills away. Sweep and then shovel up the absorbed material into a suitable container for disposal. Dispose as directed by the pesticide product label.

For large spills, cordon off area of spillage and dike area with dirt, sand or other inert material to prevent any further migration. Recover as much of usable product for application (best disposal practice). Handle remaining material as a small spill above.

## 7. HANDLING AND STORAGE

**KEEP OUT OF REACH OF CHILDREN AND ANIMALS.** Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear.

Store in original container only. Do not store near feed or foodstuffs. In case of spill, contain material and dispose as instructed in Section 6.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

**Protective Clothing:** Use NIOSH approved respirators to avoid breathing product dust. Wear gloves and protective suit to prevent repeated or prolonged contact with skin, and chemical goggles and a full face shield to prevent contact with face and eyes.

**General:** Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Light gray pellets

**Odor:** Very faint

**Specific Gravity:** 0.75 g/mL (46.9 lb/ft<sup>3</sup>)

**pH:** 8.95

**Solubility:** Dispersible in Water



## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** None known.

**CHEMICAL STABILITY:** Stable under normal use and storage conditions but may decompose if burned.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None when stored and handled as prescribed. Thermal decomposition may release harmful vapors including oxides of nitrogen, fluorine and chlorine.

**INCOMPATIBILITY WITH OTHER MATERIALS:** None known.

**POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**ORAL TOXICITY (rat LD<sub>50</sub>):** > 500 mg/kg

**DERMAL TOXICITY (rat LD<sub>50</sub>):** > 2,000 mg/kg

**INHALATION TOXICITY (rat LC<sub>50</sub>):** > 4.12 mg/L (4-hour)

**EYE IRRITATION:** Moderately irritating

**SKIN IRRITATION:** Non-irritating

**SKIN SENSITIZATION:** Not a contact sensitizer

**The following data is for the active ingredient, fluridone:**

**CARCINOGENICITY:**

**ACGIH:** Not Listed

**IARC:** Not Listed

**NTP:** Not Listed

**OSHA:** Not Listed

**MUTAGENIC TOXICITY:** No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

**REPRODUCTIVE TOXICITY:** No evidence in animal studies.

## 12. ECOLOGICAL INFORMATION

To avoid impact on threatened or endangered aquatic plant or animal species, users must consult with state fish and game agency or U.S. Fire & Wildlife Service before making applications. Do not contaminate water when disposing of equipment wash waters. Trees & shrubs growing in water treated with product may occasionally develop chlorosis. Do not apply in tidewater or brackish waters.

**The following information is for the active ingredient, Fluridone:**

**BIRDS:** Acute oral LD<sub>50</sub> for bobwhite quail: >2000 mg/kg.

**FISH:** LC<sub>50</sub> (96 h) for rainbow trout: 11.7 mg/L.

**DAPHNIA:** LC<sub>50</sub> (48 h): 6.3 ppm.

**BEEES:** LD<sub>50</sub> (oral and contact, 48 h): >362 µg/bee.

**WORMS:** LC<sub>50</sub> (14 d) for earthworms: >102 ppm.

## 13. DISPOSAL CONSIDERATIONS

**Do not contaminate water, food or feed by disposal.**

**PESTICIDE DISPOSAL:** Wastes resulting from use of this product may be used according to label directions or disposed of at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Non-refillable container, do not reuse or refill this container. Refer to the product label for specific disposal instructions.

## 14. TRANSPORT INFORMATION

**DOT PROPER SHIPPING NAME:** Not Regulated by DOT

**REPORTABLE QUANTITY:** N/A

**MARINE POLLUTANT:** Not a marine pollutant

## **15. REGULATORY INFORMATION**

### **FIFRA –**

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

### **SARA Title III – Section 302 Extremely Hazardous Substances**

Not listed

### **SARA Title III – Section 311/312 Hazard Categories**

Immediate, Delayed

### **SARA Title III – Section 312 Threshold Planning Quantity**

N/A

### **SARA Title III – Section 313 Reportable Ingredients**

None

### **CERCLA –**

None

### **CALIFORNIA PROP 65 STATUS –**

This product does not contain any chemicals known to the State of California to cause reproductive harm or cancer.

## **16. OTHER INFORMATION**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

### **DISCLAIMER:**

THE INFORMATION IN THIS MSDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE. This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

# SAFETY DATA SHEET



## Sonar<sup>®</sup> A.S. Aquatic Herbicide

### Section 1. Identification

**GHS product identifier** : Sonar<sup>®</sup> A.S. Aquatic Herbicide

**Other means of identification** : Not available.

**EPA Registration No.** : 67690-4

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
[www.sepro.com](http://www.sepro.com)

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : EYE IRRITATION - Category 2B  
AQUATIC HAZARD (ACUTE) - Category 2  
AQUATIC HAZARD (LONG-TERM) - Category 2

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : H320 - Causes eye irritation.  
H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid accidental release to the environment.  
P261 - Avoid breathing vapor.





## Section 2. Hazards identification

<b>Response</b>	: P391 - Collect spillage. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	: None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

Ingredient name	%	CAS number
Proprietary ingredient 1	40 - 60	-
Fluridone	42	59756-60-4
Proprietary ingredient 3	10 - 20	-
Proprietary ingredient 2	1 - 5	-
Proprietary ingredient 5	0.1 - 1	-
Proprietary ingredient 6	0.1 - 1	-
Proprietary ingredient 4	0.01 - 0.1	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Skin contact</b>	: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.



## Section 4. First aid measures

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities. Collect spillage.

### Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid accidental release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Fluridone Proprietary ingredient 1  Proprietary ingredient 2	None. AIHA WEEL (United States, 10/2011). TWA: 10 mg/m <sup>3</sup> 8 hours. None.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid. [Opaque.]  
**Color** : Off-white to tannish-gray.  
**Odor** : Faint sweetness.  
**Odor threshold** : Not available.  
**pH** : 5.6 to 7.6

## Section 9. Physical and chemical properties

<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: 100°C (212°F)
<b>Flash point</b>	: Closed cup: >93.3°C (>199.9°F)
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: 0.31 kPa (2.3 mm Hg) [room temperature]
<b>Vapor density</b>	: Not available.
<b>Relative density</b>	: 1.15
<b>Solubility</b>	: Easily soluble in the following materials: cold water and hot water.
<b>Solubility in water</b>	: Soluble in water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Flow time (ISO 2431)</b>	: Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidizing materials.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sonar® A.S. Aquatic Herbicide	LC50 Inhalation Dusts and mists	Rat	>10.4 mg/L	4 hours
	LD50 Dermal	Rabbit	>4000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sonar® A.S. Aquatic Herbicide	Eyes - Mild irritant	Rabbit	-	-	-



## Section 11. Toxicological information

**Skin** : Not irritating.

**Eyes** : Not available.

### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Sonar® A.S. Aquatic Herbicide	skin	Guinea pig	Not sensitizing

### Mutagenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Carcinogenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Reproductive toxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Teratogenicity

There is no data available.

### Neurotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : Causes eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

## Section 11. Toxicological information

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L LC50 8 mg/L LC50 >5.2 mg/L LC50 >6.5 mg/L Chronic NOEC 0.84 mg/L Chronic NOEC 0.43 mg/L	Daphnia - Daphnia magna Crustaceans - Eucyclops sp. Fish - Cyprinodon variegatus Fish - Pimephales promelas Daphnia - Daphnia magna Fish - Oncorhynchus tshawytscha	48 hours 48 hours 96 hours 96 hours 21 days 75 days
Proprietary ingredient 3	Acute EC50 >110 mg/L Fresh water Acute LC50 1020 mg/L Fresh water Acute LC50 710 mg/L Fresh water	Daphnia - Daphnia magna Crustaceans - Ceriodaphnia dubia Fish - Pimephales promelas	48 hours 48 hours 96 hours
Proprietary ingredient 4	Acute EC50 97 ppb Fresh water Acute LC50 10 to 20 mg/L Fresh water Acute LC50 167 ppb Fresh water	Daphnia - Daphnia magna Crustaceans - Ceriodaphnia dubia Fish - Oncorhynchus mykiss	48 hours 48 hours 96 hours

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low
Proprietary ingredient 3	-1.07	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.







## Section 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
<b>UN number</b>	UN3082	UN3082	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluridone)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluridone). Marine pollutant (Fluridone)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluridone)
<b>Transport hazard class(es)</b>	9  	9  	9  
<b>Packing group</b>	-	-	-
<b>Environmental hazards</b>	Yes.	Yes.	Yes.

**AERG : 171**

### Additional information

- DOT Classification** : Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States Inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112** : Not listed

**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone Proprietary ingredient 2	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

### SARA 313

There is no data available.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Proprietary ingredient 3

**Pennsylvania** : The following components are listed: Proprietary ingredient 3

### California Prop. 65

No products were found.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)

**Health :** 2    **Flammability :** 1    **Instability :** 0

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## Section 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### Procedure used to derive the classification

Classification	Justification
EYE IRRITATION - Category 2B	On basis of test data
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

### History

**Date of issue mm/dd/yyyy** : 08/15/2017  
**Date of previous issue** : 08/15/2016  
**Version** : 5  
**Prepared by** : KMK Regulatory Services Inc.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.





# SAFETY DATA SHEET



## Sonar<sup>®</sup> H4C

### Section 1. Identification

**GHS product identifier** : Sonar<sup>®</sup> H4C  
**Other means of identification** : Not available.

**EPA Registration No.** : 67690-61

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
www.sepro.com

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : EYE IRRITATION - Category 2B  
AQUATIC HAZARD (ACUTE) - Category 3  
AQUATIC HAZARD (LONG-TERM) - Category 3

**GHS label elements**

**Signal word** : Warning  
**Hazard statements** : H320 - Causes eye irritation.  
H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : P273 - Avoid accidental release to the environment.  
P264 - Wash hands thoroughly after handling.  
**Response** : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical attention.  
**Storage** : Not applicable.  
**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.



## Section 2. Hazards identification

Hazards not otherwise classified : None known.

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture  
Other means of identification : Not available.

Ingredient name	%	CAS number
Proprietary ingredient 3	70 - 90	-
Proprietary ingredient 1	5 - 10	-
Fluridone	2.7	59756-60-4
Proprietary ingredient 2	1 - 5	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.



## Section 4. First aid measures

### Over-exposure signs/symptoms

- |                     |  |
|---------------------|--|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
| <b>Inhalation</b>   | : No known significant effects or critical hazards.  |
| <b>Skin contact</b> | : No known significant effects or critical hazards.  |
| <b>Ingestion</b>    | : No known significant effects or critical hazards.  |

### Indication of immediate medical attention and special treatment needed, if necessary

- |                                   |  |
|-----------------------------------|--|
| <b>Notes to physician</b>         | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.      |
| <b>Specific treatments</b>        | : No specific treatment.   |
| <b>Protection of first-aiders</b> | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- |                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | : Use an extinguishing agent suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | : None known.   |

<b>Specific hazards arising from the chemical</b>	: This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
---	---

- |   |  |
|---|--|
| <b>Hazardous thermal decomposition products</b> | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds |
|---|--|

<b>Special protective actions for fire-fighters</b>	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
---	---

<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
---	---

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- |                                    |   |
|------------------------------------|---|
| <b>For non-emergency personnel</b> | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|------------------------------------|---|

## Section 6. Accidental release measures

- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities.

### Methods and materials for containment and cleaning up

- Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid accidental release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Fluridone	None.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid.
- Color** : Gray.
- Odor** : Earthy (faint).
- Odor threshold** : Not available.
- pH** : 5.41 [Conc. (% w/w): 100%] @ 23°C
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.1
- Solubility** : Easily soluble in the following materials: cold water and hot water.
- Solubility in water** : Soluble.
- Partition coefficient: n-octanol/water** : Not available.

## Section 9. Physical and chemical properties

Auto-ignition temperature : Not available.  
 Decomposition temperature : Not available.  
 Viscosity : Not available.  
 Flow time (ISO 2431) : Not available.

## Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : None.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sonar® H4C	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sonar® H4C	Eyes - Mild irritant	Rabbit	-	-	-

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Sonar® H4C	skin	Guinea pig	Not sensitizing

#### Mutagenicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Carcinogenicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Reproductive toxicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Teratogenicity

There is no data available.

#### Neurotoxicity

Conclusion/Summary : Based on active ingredients: no known evidence.

## Section 11. Toxicological information

### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

## Section 11. Toxicological information

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L	Daphnia - Daphnia magna	48 hours
	LC50 8 mg/L	Crustaceans - Eucyclops sp.	48 hours
	LC50 >5.2 mg/L	Fish - Cyprinodon variegatus	96 hours
	LC50 >6.5 mg/L	Fish - Pimephales promelas	96 hours
	Chronic NOEC 0.84 mg/L	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.43 mg/L	Fish - Oncorhynchus tshawytscha	75 days

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

AERG : Not applicable.

**Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112** : Not listed

(b) Hazardous Air Pollutants (HAPs)

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

**Section 15. Regulatory information**

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone	No.	No.	No.	Yes.	No.

**SARA 313**

There is no data available.

**State regulations**

**Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: Proprietary ingredient 3  
**Pennsylvania** : The following components are listed: Proprietary ingredient 3

**California Prop. 65**

No products were found.

**Section 16. Other information****National Fire Protection Association (U.S.A.)**

Health : 1 Flammability : 0 Instability : 0

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Procedure used to derive the classification**

Classification	Justification
EYE IRRITATION - Category 2B AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method

**History**

**Date of issue mm/dd/yyyy** : 08/15/2017  
**Date of previous issue** : 09/15/2015  
**Version** : 2  
**Prepared by** : KMK Regulatory Services Inc.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# SAFETY DATA SHEET



## SonarOne® Aquatic Herbicide

### Section 1. Identification

**GHS product identifier** : SonarOne® Aquatic Herbicide

**Other means of identification** : Not available.

**EPA Registration No.** : 67690-45

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
www.sepro.com

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : EYE IRRITATION - Category 2B  
AQUATIC HAZARD (ACUTE) - Category 3  
AQUATIC HAZARD (LONG-TERM) - Category 3

**GHS label elements**

**Signal word** : Warning

**Hazard statements** : H320 - Causes eye irritation.  
H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : P273 - Avoid accidental release to the environment.  
P264 - Wash hands thoroughly after handling.

**Response** : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical attention.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.



## Section 2. Hazards identification

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture  
**Other means of identification** : Not available.

Ingredient name	%	CAS number
Proprietary ingredient 3	40 - 60	-
Proprietary ingredient 4	20 - 40	-
Proprietary ingredient 1	10 - 20	-
Fluridone	5	59756-60-4
Proprietary ingredient 2	1 - 5	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.

## Section 4. First aid measures

**Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities.

### Methods and materials for containment and cleaning up

**Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid accidental release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Fluridone	None.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## Section 8. Exposure controls/personal protection

### Individual protection measures

- |                               |  |
|-------------------------------|--|
| <b>Hygiene measures</b>       | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.<br>Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.   |
| <b>Eyeface protection</b>     | : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.   |
| <b><u>Skin protection</u></b> |  |
| <b>Hand protection</b>        | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. |
| <b>Body protection</b>        | : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  |
| <b>Other skin protection</b>  | : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  |
| <b>Respiratory protection</b> | : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.   |

## Section 9. Physical and chemical properties

### Appearance

- |   |   |
|---|---|
| <b>Physical state</b>                               | : Solid. [Pellets.]                         |
| <b>Color</b>  | : Brown to gray.                            |
| <b>Odor</b>   | : Faint earthy/musty.                       |
| <b>Odor threshold</b>                               | : Not available.                            |
| <b>pH</b>   | : 7.8 [Conc. (% w/w): 31%]                  |
| <b>Melting point</b>                                | : Not available.                            |
| <b>Boiling point</b>                                | : Not available.                            |
| <b>Flash point</b>                                  | : Not applicable.                           |
| <b>Evaporation rate</b>                             | : Not available.                            |
| <b>Flammability (solid, gas)</b>                    | : Not available.                            |
| <b>Lower and upper explosive (flammable) limits</b> | : Not available.                            |
| <b>Vapor pressure</b>                               | : Not available.                            |
| <b>Vapor density</b>                                | : Not available.                            |
| <b>Relative density</b>                             | : 1.02 at 20°C                              |
| <b>Solubility</b>                                   | : Not available.                            |
| <b>Solubility in water</b>                          | : Insoluble. Pellet disintegrates in water. |
| <b>Partition coefficient: n-octanol/water</b>       | : Not available.                            |

## Section 9. Physical and chemical properties

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Not available.

**Flow time (ISO 2431)** : Not available.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

**Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SonarOne® Aquatic Herbicide	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SonarOne® Aquatic Herbicide	Eyes - Mild irritant	Rabbit	-	-	-

There is no data available.

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
SonarOne® Aquatic Herbicide	skin	Guinea pig	Not sensitizing

#### Mutagenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Carcinogenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Reproductive toxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Teratogenicity

There is no data available.

## Section 11. Toxicological information

### Neurotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L	Daphnia - <i>Daphnia magna</i>	48 hours
	LC50 8 mg/L	Crustaceans - <i>Eucyclops sp.</i>	48 hours
	LC50 >5.2 mg/L	Fish - <i>Cyprinodon variegatus</i>	96 hours
	LC50 >6.5 mg/L	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic NOEC 0.84 mg/L	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 0.43 mg/L	Fish - <i>Oncorhynchus tshawytscha</i>	75 days

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



**Section 14. Transport information**

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

AERG : Not applicable.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Section 15. Regulatory information**

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112** : Not listed  
**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602** : Not listed  
**Class I Substances**

**Clean Air Act Section 602** : Not listed  
**Class II Substances**

**DEA List I Chemicals** : Not listed  
**(Precursor Chemicals)**

**DEA List II Chemicals** : Not listed  
**(Essential Chemicals)**

**SARA 302/304****Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : Immediate (acute) health hazard





## Section 15. Regulatory information

### Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone	No.	No.	No.	Yes.	No.

### SARA 313

There is no data available.

### State regulations

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: Proprietary ingredient 3  
**Pennsylvania** : The following components are listed: Proprietary ingredient 3

### California Prop. 65

No products were found.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
EYE IRRITATION - Category 2B AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method

### History

- Date of issue mm/dd/yyyy** : 06/30/2017  
**Date of previous issue** : 09/15/2015  
**Version** : 5  
**Prepared by** : KMK Regulatory Services Inc.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# SAFETY DATA SHEET



## Sonar® PR Aquatic Herbicide

### Section 1. Identification

**GHS product identifier** : Sonar® PR Aquatic Herbicide

**Other means of identification** : Not available.

**EPA Registration No.** : 67690-12

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
[www.sepro.com](http://www.sepro.com)

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : EYE IRRITATION - Category 2B  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
AQUATIC HAZARD (ACUTE) - Category 3  
AQUATIC HAZARD (LONG-TERM) - Category 3

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : H320 - Causes eye irritation.  
H335 - May cause respiratory irritation.  
H412 - Harmful to aquatic life with long lasting effects.



## Section 2. Hazards identification

### Precautionary statements

- Prevention** : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
P273 - Avoid accidental release to the environment.  
P264 - Wash hands thoroughly after handling.
- Response** : P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical attention.
- Storage** : P405 - Store locked up.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	%	CAS number
Proprietary ingredient3	60 - 90	-
Proprietary ingredient 1	10 - 20	-
Fluridone	5	59756-60-4
Proprietary ingredient 2	1 - 5	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.  
**Inhalation** : May cause respiratory irritation.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.  
**Specific treatments** : No specific treatment.  
**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.  
**Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## Section 5. Fire-fighting measures

- |   |   |
|---|---|
| <b>Hazardous thermal decomposition products</b>       | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds<br>metal oxide/oxides                          |
| <b>Special protective actions for fire-fighters</b>   | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| <b>Special protective equipment for fire-fighters</b> | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                         |

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- |                                    |   |
|------------------------------------|---|
| <b>For non-emergency personnel</b> | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| <b>For emergency responders</b>    | : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".   |
| <b>Environmental precautions</b>   | : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities. Collect spillage.   |

### Methods and materials for containment and cleaning up

- |              |   |
|--------------|---|
| <b>Spill</b> | : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
|--------------|---|

## Section 7. Handling and storage

### Precautions for safe handling

- |   |   |
|---|---|
| <b>Protective measures</b>                    | : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid accidental release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| <b>Advice on general occupational hygiene</b> | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.   |

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Proprietary ingredient 3 Fluridone	None. None.

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

Physical state	: Solid. [Pellets.]
Color	: Brown to gray. [Dark]
Odor	: Faint earthy/musty.
Odor threshold	: Not available.
pH	: 4.45 [Conc. (% w/w): 50%]
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.64 to 1.3
Solubility	: Insoluble; pellets disintegrates in water.
Solubility in water	: Insoluble; pellets disintegrates in water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Flow time (ISO 2431)	: Not available.

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sonar® PR Aquatic Herbicide	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sonar® PR Aquatic Herbicide	Eyes - Mild irritant	Rabbit	-	-	-

There is no data available.

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Sonar® PR Aquatic Herbicide	skin	Guinea pig	Not sensitizing

#### Mutagenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Carcinogenicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Reproductive toxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Teratogenicity

There is no data available.

#### Neurotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Proprietary ingredient 3	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : May cause respiratory irritation.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.

#### Long term exposure

Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.

#### Potential chronic health effects

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L	Daphnia - <i>Daphnia magna</i>	48 hours
	LC50 8 mg/L	Crustaceans - <i>Eucyclops sp.</i>	48 hours
	LC50 >5.2 mg/L	Fish - <i>Cyprinodon variegatus</i>	96 hours
	LC50 >6.5 mg/L	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic NOEC 0.84 mg/L	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 0.43 mg/L	Fish - <i>Oncorhynchus tshawytscha</i>	75 days

### Persistence and degradability

There is no data available.

## Section 12. Ecological information

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

AERG : Not applicable.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): Not determined.

Clean Air Act Section 112 : Not listed

(b) Hazardous Air  
Pollutants (HAPs)

Clean Air Act Section 602 : Not listed  
Class I Substances

Clean Air Act Section 602 : Not listed  
Class II Substances

DEA List I Chemicals : Not listed  
(Precursor Chemicals)

DEA List II Chemicals : Not listed  
(Essential Chemicals)

### SARA 302/304

#### Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

### SARA 311/312

Classification : Immediate (acute) health hazard

#### Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone	No.	No.	No.	Yes.	No.

### SARA 313

There is no data available.

### State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

### California Prop. 65

No products were found.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
EYE IRRITATION - Category 2B	On basis of test data
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method



## Section 16. Other information

### History

**Date of issue mm/dd/yyyy** : 06/30/2017  
**Date of previous issue** : 07/15/2015  
**Version** : 5  
**Prepared by** : KMK Regulatory Services Inc.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.





# SAFETY DATA SHEET



## Sonar<sup>®</sup> Q Aquatic Herbicide

### Section 1. Identification

**GHS product identifier** : Sonar<sup>®</sup> Q Aquatic Herbicide  
**Other means of identification** : Not available.  
**EPA Registration No.** : 67690-3

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
[www.sepro.com](http://www.sepro.com)

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : EYE IRRITATION - Category 2B  
AQUATIC HAZARD (ACUTE) - Category 3  
AQUATIC HAZARD (LONG-TERM) - Category 3

**GHS label elements**

**Signal word** : Warning  
**Hazard statements** : H320 - Causes eye irritation.  
H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : P273 - Avoid accidental release to the environment.  
P264 - Wash hands thoroughly after handling.  
**Response** : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical attention.  
**Storage** : Not applicable.  
**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.





## Section 2. Hazards identification

Hazards not otherwise classified : None known.

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture  
Other means of identification : Not available.

Ingredient name	%	CAS number
Proprietary ingredient 3	60 - 90	-
Proprietary ingredient 1	5 - 10	-
Fluridone	5	59756-60-4
Proprietary ingredient 2	1 - 5	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.





## Section 4. First aid measures

### Over-exposure signs/symptoms

- |                     |  |
|---------------------|--|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
| <b>Inhalation</b>   | : No known significant effects or critical hazards.  |
| <b>Skin contact</b> | : No known significant effects or critical hazards.  |
| <b>Ingestion</b>    | : No known significant effects or critical hazards.  |

### Indication of immediate medical attention and special treatment needed, if necessary

- |                                   |  |
|-----------------------------------|--|
| <b>Notes to physician</b>         | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.      |
| <b>Specific treatments</b>        | : No specific treatment.   |
| <b>Protection of first-aiders</b> | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- |                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | : Use an extinguishing agent suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | : None known.   |

<b>Specific hazards arising from the chemical</b>	: This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
---	---

- |   |  |
|---|--|
| <b>Hazardous thermal decomposition products</b> | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds |
|---|--|

<b>Special protective actions for fire-fighters</b>	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
---	---

<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
---	---

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- |                                    |   |
|------------------------------------|---|
| <b>For non-emergency personnel</b> | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|------------------------------------|---|

## Section 6. Accidental release measures

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities.

### Methods and materials for containment and cleaning up

**Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid accidental release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Fluridone	None.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid. [Pellets.]
- Color** : Brown to gray. [Dark]
- Odor** : Faint earthy/musty.
- Odor threshold** : Not available.
- pH** : 4.45 [Conc. (% w/w): 50%]
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.64 to 1.3
- Solubility** : Pellet disintegrates in water.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.

## Section 9. Physical and chemical properties

Auto-ignition temperature : Not available.  
 Decomposition temperature : Not available.  
 Viscosity : Not available.  
 Flow time (ISO 2431) : Not available.

## Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sonar® Q Aquatic Herbicide	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sonar® Q Aquatic Herbicide	Eyes - Mild irritant	Rabbit	-	-	-

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Sonar® Q Aquatic Herbicide	skin	Guinea pig	Not sensitizing

#### Mutagenicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Carcinogenicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Reproductive toxicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Teratogenicity

There is no data available.

#### Neurotoxicity

Conclusion/Summary : Based on active ingredients: no known evidence.

## Section 11. Toxicological information

### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

## Section 11. Toxicological information

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L	Daphnia - Daphnia magna	48 hours
	LC50 8 mg/L	Crustaceans - Eucyclops sp.	48 hours
	LC50 >5.2 mg/L	Fish - Cyprinodon variegatus	96 hours
	LC50 >6.5 mg/L	Fish - Pimephales promelas	96 hours
	Chronic NOEC 0.84 mg/L	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.43 mg/L	Fish - Oncorhynchus tshawytscha	75 days

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**Section 14. Transport information**

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

AERG : Not applicable.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Section 15. Regulatory information**

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States Inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112** : Not listed

**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304****Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : Immediate (acute) health hazard

**Composition/information on ingredients**

**Section 15. Regulatory information**

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone	No.	No.	No.	Yes.	No.

**SARA 313**

There is no data available.

**State regulations**

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: Proprietary ingredient 3  
**Pennsylvania** : The following components are listed: Proprietary ingredient 3

**California Prop. 65**

No products were found.

**Section 16. Other information****Procedure used to derive the classification**

Classification	Justification
EYE IRRITATION - Category 2B AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method

**History**

- Date of issue mm/dd/yyyy** : 06/30/2017  
**Date of previous issue** : 06/15/2015  
**Version** : 5  
**Prepared by** : KMK Regulatory Services Inc.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.





# SAFETY DATA SHEET



## Sonar<sup>®</sup> SRP Aquatic Herbicide

### Section 1. Identification

**GHS product identifier** : Sonar<sup>®</sup> SRP Aquatic Herbicide

**Other means of identification** : Not available.

**EPA Registration No.** : 67690-3

**Relevant identified uses of the substance or mixture**

Aquatic herbicide.

**Supplier's details** : SePRO Corporation  
11550 North Meridian Street  
Suite 600  
Carmel, IN 46032 U.S.A.  
Tel: 317-580-8282  
Toll free: 1-800-419-7779  
Fax: 317-580-8290  
Monday - Friday, 8am to 5pm E.S.T.  
[www.sepro.com](http://www.sepro.com)

**Emergency telephone number (with hours of operation)** : INFOTRAC - 24-hour service 1-800-535-5053

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this product. For applications and/or use, consult the product label. The label directions supersede the text of this Safety Data Sheet for application and/or use.

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : EYE IRRITATION - Category 2B  
AQUATIC HAZARD (ACUTE) - Category 3  
AQUATIC HAZARD (LONG-TERM) - Category 3

**GHS label elements**

**Signal word** : Warning

**Hazard statements** : H320 - Causes eye irritation.  
H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : P273 - Avoid accidental release to the environment.  
P264 - Wash hands thoroughly after handling.

**Response** : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical attention.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.



## Section 2. Hazards identification

Hazards not otherwise classified : None known.

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture  
Other means of identification : Not available.

Ingredient name	%	CAS number
Proprietary ingredient 3	60 - 90	-
Proprietary ingredient 1	5 - 10	-
Fluridone	5	59756-60-4
Proprietary ingredient 2	1 - 5	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. If irritation persists, get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

## Section 4. First aid measures

### Over-exposure signs/symptoms

- |                     |  |
|---------------------|--|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
| <b>Inhalation</b>   | : No known significant effects or critical hazards.  |
| <b>Skin contact</b> | : No known significant effects or critical hazards.  |
| <b>Ingestion</b>    | : No known significant effects or critical hazards.  |

### Indication of immediate medical attention and special treatment needed, if necessary

- |                                   |  |
|-----------------------------------|--|
| <b>Notes to physician</b>         | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.      |
| <b>Specific treatments</b>        | : No specific treatment.   |
| <b>Protection of first-aiders</b> | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- |                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | : Use an extinguishing agent suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | : None known.   |

**Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- |   |  |
|---|--|
| <b>Hazardous thermal decomposition products</b> | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds |
|---|--|

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- |                                    |   |
|------------------------------------|---|
| <b>For non-emergency personnel</b> | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|------------------------------------|---|

## Section 6. Accidental release measures

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if accidentally released in large quantities.

### Methods and materials for containment and cleaning up

**Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid accidental release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Fluridone	None.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid. [Pellets.]
- Color** : Brown to gray. [Dark]
- Odor** : Faint earthy/musty.
- Odor threshold** : Not available.
- pH** : 4.45 [Conc. (% w/w): 50%]
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.64 to 1.3
- Solubility** : Pellet disintegrates in water.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.

## Section 9. Physical and chemical properties

Auto-ignition temperature : Not available.  
 Decomposition temperature : Not available.  
 Viscosity : Not available.  
 Flow time (ISO 2431) : Not available.

## Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sonar® SRP Aquatic Herbicide	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sonar® SRP Aquatic Herbicide	Eyes - Mild irritant	Rabbit	-	-	-

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Sonar® SRP Aquatic Herbicide	skin	Guinea pig	Not sensitizing

#### Mutagenicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Carcinogenicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Reproductive toxicity

Conclusion/Summary : Based on active ingredients: no known evidence.

#### Teratogenicity

There is no data available.

#### Neurotoxicity

Conclusion/Summary : Based on active ingredients: no known evidence.

## Section 11. Toxicological information

### Immunotoxicity

**Conclusion/Summary** : Based on active ingredients: no known evidence.

### Specific target organ toxicity (single exposure)

There is no data available.

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.  
**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

## Section 11. Toxicological information

There is no data available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Fluridone	EC50 3 mg/L	Daphnia - Daphnia magna	48 hours
	LC50 8 mg/L	Crustaceans - Eucyclops sp.	48 hours
	LC50 >5.2 mg/L	Fish - Cyprinodon variegatus	96 hours
	LC50 >6.5 mg/L	Fish - Pimephales promelas	96 hours
	Chronic NOEC 0.84 mg/L	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.43 mg/L	Fish - Oncorhynchus tshawytscha	75 days

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Fluridone	3.16	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information



## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

AERG : Not applicable.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

#### Composition/information on ingredients

**Section 15. Regulatory information**

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Fluridone	No.	No.	No.	Yes.	No.

**SARA 313**

There is no data available.

**State regulations**

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: Proprietary ingredient 3  
**Pennsylvania** : The following components are listed: Proprietary ingredient 3

**California Prop. 65**

No products were found.

**Section 16. Other information****Procedure used to derive the classification**

Classification	Justification
EYE IRRITATION - Category 2B AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method

**History**

- Date of issue mm/dd/yyyy** : 06/30/2017  
**Date of previous issue** : 06/15/2015  
**Version** : 5  
**Prepared by** : KMK Regulatory Services Inc.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)



## 1. IDENTIFICATION

**PRODUCT NAME:** Spritflo Herbicide

**DESCRIPTION:** A liquid herbicide.

**EPA Reg. No.:** 81927-45-84868

### COMPANY IDENTIFICATION:

**Lake Restoration, Inc.**

12425 Ironwood Circle

Rogers, MN 55374

## 2. HAZARD IDENTIFICATION



### WARNING

Harmful if swallowed

Causes eye irritation

Harmful in contact with skin

Harmful if inhaled

Toxic to aquatic life

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### Common Name

Spritflo

### Chemical Name

1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone

### CAS #

59756-60-4

### Composition

41.7%

## 4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

**IF IN EYES:** 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 eye. If eye irritation persists: Get medical advice / attention.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. 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.

**IF ON SKIN OR CLOTHING:** Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Call a doctor or poison control center if you feel unwell.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a doctor or poison control center if you feel unwell.

## 5. FIREFIGHTING MEASURES

**Flash Point (SCC):** 93.3°C (200°F)

**Flammable Limits (LFL-UFL):** Not determined

**Fire and Explosion Hazards:** Product will not burn unless sufficient water is evaporated. Once sufficient water has been evaporated, this product will exhibit flammability characteristics of the organic portion of the formulation.

**Extinguishing Medium:** Use extinguishing media as appropriate for the combustibles involved in the fire.

**Fire Fighting Equipment:** Firefighters should be equipped with self-contained positive pressure breathing apparatus and turnout gear.

**Fire Fighting Instructions:** Use water spray to cool containers. If area is heavily exposed to fire and if conditions permit, allow fire to burn itself out since water may increase the area contaminated.

**Hazardous Combustion Products:** May produce fumes containing chlorine, fluorine and oxides of nitrogen. NFPA Ratings: Health – 1 / Flammability – 1 / Reactivity - 0

## 6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this SDS. For small spills, cover spill with absorbent material and shovel into suitable containers for disposal. For large spills, dike spill and prevent material from entering sewers, waterways or low areas. Recover as much material as possible for reuse, and then handle the remaining material as a small spill using the instructions above.

## 7. HANDLING AND STORAGE

**Handling:** Avoid breathing of spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**Storage:** Store in original container only. Do not store near feed or foodstuffs. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

**Protective Clothing:** Use NIOSH approved respirator, chemical goggles and a full face shield, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride and a protective suit.

**General:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Off white opaque viscous liquid

**Odor:** Slightly faint

**pH:** 5.91

**Density:** 1.186

**Viscosity:** 667.6 cP @ 20°C; 241.5 cP @ 40°C

**Solubility in Water:** Dispersible

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under normal use and storage conditions.

**CONDITIONS TO AVOID:** Freezing temperatures.

**SUBSTANCES TO AVOID:** Oxidizing agents.

**INCOMPATIBILITY WITH OTHER MATERIALS:** None known.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**ORAL TOXICITY (rat LD50):** 1,750 mg/kg

**DERMAL TOXICITY (rat LD50):** > 5,000 mg/kg

**INHALATION TOXICITY (rat LC50):** > 2.02 mg/L

**EYE IRRITATION:** Rabbit – Practically non-irritating

**SKIN IRRITATION:** Rabbit – Non-irritating

**SKIN SENSITIZATION:** Not a contact sensitizer

**CARCINOGENICITY:**

**EPA:** Not Listed

**ACGIH:** Not Listed

**NTP:** Not Listed

**IARC:** Not Listed

**OSHA:** Not Listed

**MUTAGENIC TOXICITY:** No data available.

**REPRODUCTIVE TOXICITY:** No data available.

## 12. ECOLOGICAL INFORMATION

**The following information is for the active ingredient, Spritflo:**

Follow use directions carefully so as to minimize adverse effects on nontarget organisms. Do not contaminate water when disposing of equipment washwaters. Trees, turf, and shrubs growing in water treated with Alligare Fluridone may occasionally develop chlorosis. Do not apply in tidewater/brackish water. Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment site, for example, shallow shoreline areas.

**AQUATIC TOXICITY**

Rainbow Trout (96-hr LC50): 7.7 mg/L  
Sheepshead Minnow (LC50): 10.7-16.7 mg/L  
Daphnia (48-hr EC50): 3.6 mg/L

### 13. DISPOSAL CONSIDERATIONS

**Do not contaminate water, food or feed by disposal.**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Non-refillable container, do not reuse or refill this container. Refer to product label for specific disposal instructions.

### 14. TRANSPORT INFORMATION

**US DOT:** Not regulated by DOT.

### 15. REGULATORY INFORMATION

#### FIFRA –

This chemical is a pesticide product registered by the Environmental Protection Agency 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. The following is the hazard information as required on the pesticide label:

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

##### CAUTION.

Harmful if swallowed, absorbed through skin, or if inhaled. Causes moderate eye irritation. Avoid breathing of spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

##### ENVIRONMENTAL HAZARDS

Do not apply to water except as specified on the label. Follow use directions carefully so as to minimize adverse effects on non-target organisms. Do not contaminate water when disposing of equipment washwaters. Trees, turf, and shrubs growing in water treated with this product may occasionally develop chlorosis. Do not apply in tidal water/brackish water. Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment side, for example, shallow shoreline areas.

##### PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow to come in contact with oxidizing agents, as Hazardous Chemical Reactions may occur.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

**SARA Title III – Section 302 Extremely Hazardous Substances**

Not listed

**SARA Title III – Section 311/312 Hazard Categories**

Immediate, Delayed

**SARA Title III – Section 312 Threshold Planning Quantity**

N/A

**SARA Title III – Section 313 Reportable Ingredients**

None

**CERCLA –**

None Listed

**CALIFORNIA PROP 65 STATUS –**

This product does not contain any chemical known to the state of California to cause cancer or reproductive toxicity.

**CANADA –**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

<b>16. OTHER INFORMATION</b>
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THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT LAKERESTORATION, INC. TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, LAKE RESTORATION, INC. EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE. This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 2.0 (Conversion from MSDS format)

Effective Date: 05/04/2015

