



Conforms to HazCom 2012/United States

# SAFETY DATA SHEET



## Clearcast

### Herbicide

#### Section 1. Identification

**GHS product identifier:** Clearcast Herbicide  
**Other means of identification:** Not available.  
**EPA Registration No.:** 241-437-67690

**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

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

**Classification of the product:** No need for classification according to GHS criteria for this product.

**Label elements  
(Emergency overview)** The product does not require a hazard warning label in accordance with GHS criteria.

#### **Hazards not otherwise classified**

##### Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity:

- 0 - 2 % dermal
- 0 - 2 % oral
- 15 - 18 % Inhalation - vapor
- 15 - 18 % Inhalation – mist

**Emergency overview**

**According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

CAUTION:  
HARMFUL IF ABSORBED THROUGH SKIN.  
HARMFUL IF INHALED.  
KEEP OUT OF REACH OF CHILDREN.  
KEEP OUT OF REACH OF DOMESTIC ANIMALS.  
Avoid contact with the skin, eyes and clothing.  
Avoid inhalation of mists/vapors.

**Section 3. Composition/information on ingredients**

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

| CAS Number  | Weight % | Chemical name                                 |
|-------------|----------|---|
| 247057-22-3 | 12.1%    | ammonium salt of imazamox (active ingredient) |

**Section 4. First aid measures****Description of first aid measures**

**General advice:** First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**If inhaled:** Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary.

**If on skin:** Rinse skin immediately with plenty of water for 15 - 20 minutes.

**If in eyes:** Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

**If swallowed:** Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

**Most important symptoms and effects, both acute and delayed** Symptoms: No significant reaction of the human body to the product known.

**Indication of any immediate medical attention and special treatment needed**

Note to physician Treatment: Symptomatic treatment (decontamination, vital functions).

## Section 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Extinguishing media</b>                                   | Suitable extinguishing media:<br>Foam, dry powder, carbon dioxide, water spray  |
| <b>Special hazards arising from the substance or mixture</b> |   |
| Hazards during fire-fighting:                                | carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Ammonium, Hydrocarbons, If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire. |
| <b>Advice for fire-fighters</b>                              |   |
| Protective equipment for fire-fighting:                      | Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.  |
| <b>Further information</b>                                   | Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.   |

## Section 6. Accidental release measures

|   |   |
|---|---|
| <b>Personal precautions protective equipment and emergency procedures</b> | Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.  |
| <b>Environmental precautions</b>  | Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.   |
| <b>Methods and material for containment and cleaning up</b>               | Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal. |

## Section 7. Handling and storage

|                                      |  |
|--------------------------------------|--|
| <b>Precautions for safe handling</b> | RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings |
|--------------------------------------|--|



even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapors. Wear suitable personal protective clothing and equipment.

**Protection against fire and explosion:** The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

**Conditions for safe storage, including any incompatibilities**

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

**Further information on storage conditions:**

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

**Storage stability:**

If substance/product crystallizes, thaw at room temperature.

Protect from temperatures below: 0 °C. Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C. Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

## Section 8. Exposure controls/personal protection

**Users of a pesticidal product should refer to the product label for personal protective equipment requirements.**

**Advice on system design:** Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

**Personal protective equipment**

**RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:**

**Respiratory protection:** Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

**Hand protection:** Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.



|   |   |
|---|---|
| <b>Eye protection:</b>                      | Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles).<br>Wear face shield if splashing hazard exists.  |
| <b>Body protection:</b>                     | Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.  |
| <b>General safety and hygiene measures:</b> | Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs. |

## Section 9. Physical and chemical properties

|                          |  |
|--------------------------|--|
| Form:                    | liquid   |
| Odor:                    | acidic, mild   |
| Odor threshold:          | No data available.   |
| Color:                   | pale, yellow, clear  |
| pH value:                | approx. 5 – 7 (20 °C)  |
| Freezing point:          | approx. 0 °C (1,013.3 hPa) Information applies to the solvent.   |
| Boiling point:           | approx. 100 °C (1,013.3 hPa) Information applies to the solvent.   |
| Flash point:             | A flash point determination is unnecessary due to the high water content.  |
| Flammability:            | Based on the structure or composition there is no indication of flammability   |
| Lower explosion limit:   | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. |
| Upper explosion limit:   | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. |
| Autoignition:            | Based on the water content the product does not ignite.  |
| Vapor pressure:          | approx. 23.3 hPa (20 °C) Information applies to the solvent.   |
| Density:                 | 1.0486 g/cm <sup>3</sup> (20 °C)<br>8.7510 Lb/USg (68 °F)  |
| Vapour density:          | not applicable   |
| Partitioning coefficient | not applicable   |

n-octanol/water (log Pow):

Thermal decomposition: carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Ammonium, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

Viscosity, dynamic: 3.7 mPa.s (20 °C)

Solubility in water: soluble

Evaporation rate: not applicable

Molar mass: 320.4 g/mol

Other information: If necessary, information on other physical and chemical parameters is indicated in this section.

## Section 10. Stability and reactivity

### Reactivity

Additional information: No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Oxidizing properties: Not an oxidizer.

**Chemical stability** The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

Hazardous reactions: The product is chemically stable.  
No hazardous reactions if stored and handled as prescribed/indicated.

### Conditions to avoid

Conditions to avoid: Avoid all sources of ignition: heat, sparks, open flame. Avoid electro-static charge. Avoid prolonged storage. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

### Incompatible materials

Substances to avoid: oxidizing agents

### Hazardous decomposition products

Decomposition products: Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition: Possible thermal decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Ammonium, Hydrocarbons  
Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

**Section 11. Toxicological information**

**Primary routes of exposure** Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

**Acute Toxicity/Effects**

Acute toxicity

Assessment of acute toxicity: Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

*contact.*

| Product/ingredient name | Result                | Species | Dose        | Exposure |
|-------------------------|-----------------------|---------|-------------|----------|
| Clearcast               | LC50 Inhalation Vapor | Rat     | >5 mg/L     | 4 hours  |
|                         | LD50 Dermal           | Rat     | >4000 mg/kg | -        |
|                         | LD50 Oral             | Rat     | >5000 mg/kg | -        |

Irritation / corrosion

Assessment of irritating effects: May cause slight but temporary irritation to the eyes. May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

| Product/ingredient name | Result              | Species | Score | Exposure | Observation |
|-------------------------|---------------------|---------|-------|----------|-------------|
| Clearcast               | Eyes – non-irritant | Rabbit  | -     | -        | -           |
|                         | Skin – non-irritant | Rabbit  | -     | -        | -           |

Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential. modified Buehler test  
 Species: guinea pig  
 Result: Skin sensitizing effects were not observed in animal studies.

**Chronic Toxicity/Effects**

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organ toxicity was observed after repeated administration to animals.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information Misuse can be harmful to health.

**Symptoms of Exposure** No significant reaction of the human body to the product known.

## Section 12. Ecological information

### Toxicity

#### Aquatic toxicity

Assessment of aquatic toxicity: There is a high probability that the product is not acutely harmful to aquatic organisms.

#### Aquatic plants

EC50 (72 h) > 100 mg/l (growth rate), *Pseudokirchneriella subcapitata*

#### Toxicity to fish

Information on: imazamox

LC50 (96 h) > 119 mg/l, *Lepomis macrochirus*

#### Aquatic plants

Information on: imazamox

EC10 (7 d) 0.0095mg/l, *Lemna gibba*  
 EC50 (72 h) 29.1 mg/l (growth rate), *Pseudokirchneriella subcapitata*  
 EC50 (7 d) 0.031 mg/l (growth rate), *Lemna gibba*

#### Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms.

#### Other terrestrial non-mammals

Information on: 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1Himidazol-2-yl]-5-(methoxymethyl)-

LC50, *Anas platyrhynchos*  
 LD50 > 100 ug/bee, *Apis mellifera*

### Persistence and degradability

#### Assessment biodegradation and elimination (H2O)

The product has not been tested. The statement has been derived from the properties of the individual components.

#### Elimination information

Not readily biodegradable (by OECD criteria).

### Bioaccumulative potential

#### Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

### Mobility in soil

#### Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: imazamox

*The substance will not evaporate into the atmosphere from the water surface. Following exposure to soil, the product trickles away and can - dependant on degradation – be transported to deeper soil areas with larger water loads.*

### Additional information

Other ecotoxicological advice:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.





**Section 13. Disposal considerations**

**Waste disposal of substance:** Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container disposal:** Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

**RCRA:** This product is not regulated by RCRA.

**Section 14. Transport information**

**Land transport**  
USDOT Not classified as a dangerous good under transport regulations

**Sea transport**  
IMDG Not classified as a dangerous good under transport regulations

**Air transport**  
IATA/ICAO Not classified as a dangerous good under transport regulations

**Section 15. Regulatory information**

**Federal Regulations**

**Registration status:**

|                 |          |                      |
|-----------------|----------|----------------------|
| Chemical        | TSCA, US | blocked / not listed |
| Crop Protection | TSCA, US | released / exempt    |

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

**NFPA Hazard codes:**  
Health: 1      Fire: 0      Reactivity: 0      Special:

**Labeling requirements under 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 workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:  
HARMFUL IF ABSORBED THROUGH SKIN.  
HARMFUL IF INHALED.  
KEEP OUT OF REACH OF CHILDREN.  
KEEP OUT OF REACH OF DOMESTIC ANIMALS.



Avoid contact with the skin, eyes and clothing.

## Section 16. Other information

**SDS Prepared by:**

SePRO Corporation

SDS Prepared on: 03/28/18

**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.