

# Material Safety Data Sheet



Transportation and Medical Emergency Phone: 1-800-535-5053 (INFOTRAC)

General Phone: 317-580-8282

EPA Reg. Number: 241-437-67690

Creation Date: 03/08/2010

## Clearcast® Herbicide

SePRO Corporation 11550 North Meridian Street, Suite 600, Carmel, IN 46032-4565

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT:** Clearcast® Herbicide

**Molecular Formula:** C<sub>15</sub>H<sub>18</sub>N<sub>3</sub>O<sub>4</sub>.NH(4)

**Chemical Family:** imidazole derivative

**Synonyms:** ammonium salt of imazamox

#### COMPANY IDENTIFICATION:

SePRO Corporation

11550 North Meridian Street, Suite 600

Carmel, IN 46032-4565

[www.sepro.com](http://www.sepro.com)

**Information Phone:** 317-580-8282 (Mon - Fri, 8 am to 5 pm EST)

### 2. HAZARDS IDENTIFICATIONS

#### EMERGENCY OVERVIEW

##### 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.

*See Product Label for additional precautionary statements.*

**State of Matter:** liquid

**Color:** pale yellow, clear

**Odor:** acidic

#### Potential Health Effects

**Primary Routes of Exposure:** Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

**Acute Toxicity:** Relatively nontoxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

**Irritation/Corrosion:** May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

#### Potential Environmental Effects

**Aquatic Toxicity:** There is a high probability that the product is not acutely harmful to aquatic organisms.

**Terrestrial Toxicity:** With high probability not acutely harmful to terrestrial organisms.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	% by Wt.
Ammonium salt of imazamox (CAS# 247057-22-3)	12.1%

Components not precisely identified are proprietary or not hazardous.

### 4. 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 - 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.

#### Note to Physician

**Antidote:** No known specific antidote.

**Treatment:** Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

**Flash Point & Method:** Based on the high water content the determination of the flash point seems not to be necessary.

**Flammable Limits:** Not determined. Slightly flammable in the presence of open flames, sparks, static charge and heat.

**Auto-Ignition Temperature:** Not applicable.

**Self-Ignition Temperature:** Based on the water content the product does not ignite.

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**Extinguishing Media:** Use foam, dry extinguishing media, carbon dioxide, water spray.

**Firefighting Equipment:** Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

**Hazards During Fire-Fighting:** Carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, ammonium, hydrocarbons. If product is heated above decomposition temperature, toxic vapors will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

**Further Information:** Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** 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.

**Environmental Precautions:** Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

**Cleanup:** 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.

Report large spills to **INFOTRAC** and consult SePRO Corporation for assistance.

### 7. HANDLING AND STORAGE

#### Handling Information

**General Advice:** *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.

#### Storage Information

**General Advice:** 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 Incompatibility:** Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

**Storage Stability:** If substance/product crystallizes, thaw at room temperature.

**Temperature Tolerance:** 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

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properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

### 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 vapors. 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 facemask pressure demand self-contained breathing apparatus (SCBA) or a full facemask 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.

**Eye Protection:** Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

**Body Protection:** Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

#### General Safety and Hygiene Measures

- 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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** liquid

**Odor:** acidic, mild

**Color:** pale yellow, clear

**pH Value:** 6.0 - 6.1

**Freezing Point:** approximately 0°C (1,013.3 hPa) [Information applies to the solvent.]

**Boiling Point:** approximately 100°C (1,013.3 hPa) [Information applies to the solvent.]

**Vapor Pressure:** approximately 23.3 hPa (20°C) [Information applies to the solvent.]

**Density:** 1.0486 g/cm<sup>3</sup> (20°C)

**Relative Density:** 1.05

**Bulk Density:** not applicable

**Partitioning coefficient n-octanol/ water (log Pow):** not applicable

**Viscosity, dynamic:** 3.7 mPa.s

**Molar Mass:** 322.4 g/mol

### 10. STABILITY AND REACTIVITY

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

**Incompatibility (specific conditions/materials to avoid):** Oxidizing agents.

**Hazardous Decomposition Products:** No hazardous decomposition products if stored and handled as prescribed/indicated. Prolonged thermal loading can result in products of degradation being given off.

**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 vapors/hazardous fumes may be released.

**Corrosion to Metals:** Corrosive effects to metal are not anticipated.

**Oxidizing Properties:** Not an oxidizer.

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### 11. TOXICOLOGICAL INFORMATION

#### Acute Toxicity

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

**Inhalation (LC<sub>50</sub>, rat - 4 hr):** >5 mg/l

**Dermal (LD<sub>50</sub>, rat):** >4,000 mg/kg

#### Irritation/Corrosion

**Skin (rabbit):** Non-irritant

**Eye (rabbit):** Non-irritant

**Sensitization (guinea pig):** Modified Buehler test. Skin sensitizing effects were not observed in animal studies.

#### The below information is on the active ingredient, imazamox.

**Genetic Toxicity:** No mutagenic effect was found in various tests with microorganisms and mammals.

**Carcinogenicity:** In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

**Reproductive Toxicity:** The results of animal studies gave no indication of a fertility impairing effect.

**Development:** No indications of a developmental toxic/teratogenic effect were seen in animal studies.

### 12. ENVIRONMENTAL INFORMATION

#### The below information is on the active ingredient, imazamox.

**Fish Acute LC<sub>50</sub> (96 hr):** *Oncorhynchus mykiss* ≥122 ppm

**Aquatic Invertebrate Acute EC<sub>50</sub>:** *Daphnia magna* >122 ppm

**Aquatic Plant EC<sub>50</sub> (120 hr):** Algae > 0.037 mg/l

#### Other Terrestrial Non-Mammals:

**Mallard duck LC<sub>50</sub>:** >5,572 ppm

**Honey bee LC<sub>50</sub>:** >100 ug/bee

**Degradability/Persistence/Biological/Abiological Degradation:** Not readily biodegradable (by OECD criteria).

### 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.

### 14. TRANSPORT INFORMATION

**DOT:** Not regulated.

### 15. REGULATORY INFORMATION

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

#### U.S. Regulations

##### Registration Status:

Chemical TSCA: US blocked / not listed

Crop Protection TSCA: US released / exempt

**OSHA Hazard Category:** Not hazardous

**EPCRA 311/312 (Hazard Categories):** Not hazardous

#### State Regulations

**CA Prop. 65:** There are no listed chemicals in this product.

### 16. OTHER INFORMATION

**MSDS STATUS:** Creation Date – 03/08/2010  
(BASF090409)

The information in this Material Safety Data Sheet relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. It is the users' responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE. CONSULT SEPRO CORPORATION FOR FURTHER INFORMATION.