Clearcast® Herbicide

Conforms to HazCom 2012/United States

SAFETY DATA SHEET



Clearcast® Herbicide

Section 1. Identification

GHS product identifier: Clearcast® Herbicide

Recommended use of the chemical and restriction on use

Recommended use*: herbicide

*The 'Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

EPA Registration No.: 241-437-67690

Supplier's details: SePRO Corporation

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Emergency telephone number

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

Other means of identification:

Registration number: EPA Registration number: 241-437-67690

Molecular formula C15 H18 N3. N H (4)

Synonyms: ammonium salt of imazamox

Section 2. Hazards Identification

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

Label elementsThe product does not require a hazard warning label in accordance with GHS criteria.



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Section 3. Composition / Information on Ingredients

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

CAS Number Content (W/W)% Chemical name Synonym

247057-22-3 12.1% ammonium salt of imazamox (active ingredient) No data available

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. In case of intoxication, call a poison control center or physician for treatment

advice, taking the packaging or the label of the product.

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

effects, both acute and delayed Symptoms: Information, i.e. additional information on symptoms and effects may be

included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not

known so far.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific

antidote.

Section 5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: Foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides



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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.

Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out

Further information: Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting

water. Do not allow to enter drains or waterways.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

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.

Methods and material for containment and cleaning up

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

Precautions for safe handling

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/vapours. 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.



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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.

No occupational exposure limits known.

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.

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.

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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: Not determined due to potential health hazard by inhalation.

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: not applicable

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/cm³ (20 °C)

8.7510 Lb/USg (68 °F)

Vapour density: not applicable

Partitioning coefficient

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

Thermal decomposition: Not a substance liable to self-decomposition according to UN transport regulations,

class 4.1.

Viscosity, dynamic: 3.7 mPa.s (20 °C)

Solubility in water: soluble Evaporation rate: not applicable

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

this section.

Section 10. Stability and Reactivity

Reactivity

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 stabilityThe product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions The product is chemically stable.

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

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.



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Incompatible materials Oxidizing agents

Hazardous decomposition products

Decomposition products: Hazardous decomposition products: No hazardous decomposition products if stored

and handled as prescribed/indicated.

Thermal decomposition: Not a substance liable to self-decomposition according to UN transport regulations,

class 4.1.

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.

Oral

Type of value: LD50 Species: rat

Value: > 5,000 mg/kg

<u>Inhalation</u>

Type of value: LC50 Species: rat Value: > 5 mg/l Exposure time: 4 h

No mortality was observed.

Dermal

Type of value: LD50 Species: rat

Value: > 4,000 mg/kg No mortality was observed.

Assessment other acute effects

Assessment of STOT single: Based on the available information there is no specific target organ toxicity to be

expected after a single exposure.

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

Irritation / corrosion

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

the eyes.

<u>Skin</u>

Species: rabbit Result: non-irritant

Eye

Species: rabbit Result: non-irritant



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Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Modified Buehler test Species: guinea pig Result: Skin sensitizing.

<u>Aspiration Hazard</u> The product has not been tested. The statement has been derived from the

properties of the individual components. No aspiration hazard expected.

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.

Information on: ammonia

Assessment of repeated dose toxicity: After repeated administration the prominent effect is induction of corrosion.

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.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the

properties of the individual components. The results of various animal studies gave

no indication of a carcinogenic effect.

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.

<u>Teratogenicity</u>

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties

of the individual components.

Information on: imazamox

Assessment of teratogenicity: Indications of possible developmental toxicity/teratogencity were seen in animal studies.

Other Information Misuse can be harmful to health.

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

EC10 (7 d) 0.040 mg/l (growth rate), Lemna gibba EC50 (7 d) 0.143 mg/l (growth rate), Lemna gibba



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Assessment of terrestrial toxicity With high probability not acutely harmful to terrestrial organisms.

Persistence and degradability

Assessment biodegradation and

<u>elimination (H2O)</u> 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).

Assessment biodegradation and elimination (H2O)

Information on: imazamox

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 - dependent 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

Hazard class	9
Packaging Group	III



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ID number	UN 3082
Hazard label	9, EHSM
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
	LIQUID, N.O.S. (contains IMAZAMOX)

Air transport IATA/ICAO

Hazard class	9
Packing group	
ID number	UN 3082
Hazard label	ENVIRONMENTALLY HAZARDOUS SUSBSTANCE,
	LIQUID, N.O.S. (contains IMAZAMOX)

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197 TDG: Special Provision 99(2); 49 CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

Section 15. Regulatory Information

Federal Regulations

Registration status:

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

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

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

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.

Wash thoroughly after handling.



Section 16. Other Information

SDS Prepared by:

SePRO Corporation SDS Revision on: 2022/10/06

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.

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