SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: EMERGENCY TELEPHONE NUMBERS:

ALBAUGH, LLC (800) 424-9300 (CHEMTREC, transportation and spills)

Ankeny, IA 50021

PRODUCT NAME : IMAZACAST

CHEMICAL NAME : Imazamox ammonium salt

PRODUCT USE : Herbicide

PRODUCT CODE : EPA Reg. No 42750-314

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Brown transparent liquid

HEALTH HAZARDS: Mildly irritating to the eyes and skin. May be harmful if

swallowed.

PHYSICAL HAZARDS: May decompose at high temperatures forming noxious

gases. Dust clouds from dried material may have explosivity risk.

ENVIRONMENTAL HAZARDS: May be harmful to non-target plant species.

SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

| COMPONENT | PERCENTAGE | CAS NUMBER | | |
|-------------------------|------------|-------------|--|--|
| Imazamox, ammonium salt | 12.1 | 247057-22-3 | | |
| Other ingredients | 87.9 | n/a | | |

SECTION 4 - FIRST AID MEASURES

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

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 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 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.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. 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.

NOTE TO PHYSICIAN: No specific antidote available, treat symptomatically

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

IMAZACAST

SAFETY DATA SHEET

Page 2 of 5

SECTION 5 - FIRE FIGHTING MEASURES

National Fire Protection Rating (NFPA)

| HEALTH | | | | 1 | | |
|------------|-----------|-----|---------|----------|-----------|--|
| FLAMMABIL | _ITY | | | 0 | | |
| REACTIVITY | | | 0 | | | |
| 4=Severe | 3=Serious | 2=M | oderate | 1=Slight | 0=Minimal | |

FLASHPOINT: >115°C (boiling temperature)

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing toxic gases such as oxides of nitrogen and carbon due to thermal decomposition. Spilled material that dries could potentially form dust with potential explosivity.

Spilled material must be absorbed and cleaned up immediately!

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent excessive water run off.

FIRE FIGHTING EQUIPMENT: Full fire fighting turn-out gear with self-contained breathing apparatus.

Minimize use of water to prevent environmental contamination. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. Minimize use of water to prevent environmental contamination

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

HANDLING: Use only in a well-ventilated area. Minimize dust generation and accumulation which may form flammable or explosive dust-air mixtures.

STORAGE: KEEP FROM FREEZING. DO NOT store below 32°F. Store in a well ventilated area. Keep closed in original container when not in use. Keep away from food, feed and drinking water.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 hour TWA, ppm):

| COMPONENT | OSHA PEL | ACIGH TLV | |
|------------------------|------------|------------|--|
| Imazamox ammonium salt | Not listed | Not listed | |

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to minimize exposure to airborne contaminants and to minimize potentially explosive dust concentrations. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety glasses when working with concentrate. CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks GLOVES – Chemical resistant gloves made of any waterproof material.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

<u>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</u>

Appearance: Light yellow/amber liquid
Odor: Moderate ammonium-like odor

pH: 7.5 – 8.5
Melting Point: Not applicable
Boiling Point: No data
Flash Point: Not applicable
Evaporation Rate: No data
Flammability: Not flammable

Flammability Limits: Not applicable Vapor Pressure: <1.3 x 10⁻² mPa (25°C) (Imazamox)

Vapor Density: Not applicable

Density: $1.01 - 1.05 \text{ g/ml } (8.43 - 8.76 \text{ lb/gl})^*$

Solubility: No data

Partition Coefficient: $log P_{ow} = -1.03$ (pH5, uncorrected for dissociation), -2.4 (pH7, uncorrected), 0.73

(pH5&6, corrected) (all 25°C) (Imazamox)

Auto-Ignition Temperature: No data **Decomposition Temperature:** No data

Viscosity: 2.1 Cst (20°C); 1.3 mm²/s (40°C)

^{*}Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

PRODUCT REACTIVITY: None known.

CHEMICAL STABILITY: Stable, however may decompose if heated.

HAZARDOUS REACTION/POLYMERIZATION: Product will not undergo polymerization.

CONDITIONS TO AVOID: Avoid prolonged storage at temperatures above 100°F (38°C).

INCOMPATIBLE MATERIALS: Strong oxidizers. Do not mix or store in mild steel or aluminum containers. Avoid use with equipment using zinc, brass or copper components.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen and carbon.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity values from a similar but not identical formulation.

ACUTE TOXICITY:

 $\begin{array}{lll} \text{Oral LD}_{50} \ (\text{rat}) & ->5,000 \ \text{mg/Kg} \\ \text{Dermal LD}_{50} \ (\text{rat}) & ->5,000 \ \text{mg/Kg} \\ \text{Inhalation LC}_{50} \ (\text{rat}) & ->4.0 \ \text{mg/L} \\ \text{Eye Irritation (rabbit)} & -\text{Non-irritant} \\ \text{Skin Irritation (rabbit)} & -\text{Slight irritant} \\ \text{Sensitization (guinea pig)} & -\text{Not a sensitizer} \end{array}$

CARCINOGEN STATUS:

OSHA - Not listed.
NTP - Not listed.
IARC - Not listed.

TERATOGENICITY: Not known to exhibit reproductive or teratogenic (birth defect) effects. **MUTAGENICITY:** No evidence of mutagenic effects during in vivo or in vitro studies.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide may be hazardous to plants outside the treated area. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark except as directed in this label. Off-site movement from spray drift, volatilization, and runoff may be hazardous to neighboring crops and vegetative habitat utilized for food and cover by wildlife and aquatic organisms. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

FATE: Imazamox is moderately persistent with high mobility potential in soil depending on soil type.

FISH TOXICITY: (Technical)

96 hour LC_{50} , Rainbow trout - No data 96 hour LC_{50} , Bluegill - > 119 mg/L

AVIAN TOXICITY: (Technical)

 $\begin{array}{ll} \mbox{Dietary LC}_{50}, \mbox{ Bobwhite quail -} & > 5,000 \mbox{ mg/Kg} \\ \mbox{Dietary LC}_{50}, \mbox{ Mallard duck -} & > 5,000 \mbox{ mg/Kg} \\ \end{array}$

BEE TOXICITY: (Technical)

Contact LD_{50} - > 25 ug/bee

IMAZACAST

SAFETY DATA SHEET

Page 5 of 5

SECTION 13 - DISPOSAL CONSIDERATIONS

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

WASTE: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations.

CONTAINER: Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

<u>Refillable container</u>: Refill this container with imazamox only. Do not reuse this container for any other purposes. Do not reuse this container for any other purpose.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

SECTION 14 - TRANSPORT INFORMATION

SHIPPING DESCRIPTION: Not regulated by DOT

(Ground transport)

TRANSPORT HAZARD CLASS: N/A
UN NUMBER: N/A
DOT PACKING GROUP: PG III

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:

311/312 Hazard Categories - Non-hazardous 313 Toxic Chemicals - Not listed

CALIFORNIA PROP 65 STATUS: Not listed

SECTION 16 - OTHER INFORMATION

| HMIS HAZARD RATINGS | HEALTH | | 1 | | | | |
|---------------------------|-----------------|-----------|-----|---------|----------|-----------|--|
| | FLAMMABIL | .ITY | | | 0 | | |
| | PHYSICAL HAZARD | | 0 | | | | |
| | 4=Severe | 3=Serious | 2=M | oderate | 1=Slight | 0=Minimal | |

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

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. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

REVISED DATE: November, 2017

REFERENCE: Initial release