

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

ALBAUGH, INC.
ANKENY, IA 50021

EMERGENCY TELEPHONE NUMBERS:

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

PRODUCT NAME
: THUNDER
CHEMICAL NAME
: Ammonium salt of 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imadazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid
CHEMICAL FAMILY
: Imidazolinone herbicide
PRODUCT CODE
: EPA Reg. No. 42750-146

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

| COMPONENT | PERCENTAGE | CAS NUMBER | OSHA PEL | ACIGH TLV |
|----------------------------|------------|-------------|------------|------------|
| Imazethapyr, Ammonium salt | 22.87 | 101917-66-2 | Not estab. | Not estab. |

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

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

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

PHYSICAL HAZARDS: May decompose at high temperatures forming noxious gases.

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

SECTION 4 - FIRST AID MEASURES

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 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 SWALLOWED: Call physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: No specific antidote available, treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): Not applicable

FLAMMABLE LIMITS (LFL-UFL): Unknown

FIRE AND EXPLOSION HAZARD: Can burn in fire, releasing toxic gases due to thermal decomposition.

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

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.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of nitrogen and carbon.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SPILL: Recover spilled material and place in a container for reuse or disposal. If recovery of free liquid is not possible, absorb with suitable material and placed in proper container for disposal.

WASTE DISPOSAL: Pesticide wastes are toxic. Dispose of in accordance with all local, State and Federal regulations.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

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): (Refer to Section 3)

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit 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:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------------------|---|
| PHYSICAL DESCRIPTION: | Brown transparent liquid |
| ODOR: | Slight musty odor |
| MOLECULAR WEIGHT (technical): | 289.3 |
| MOLECULAR FORMULA (technical): | C ₁₅ H ₁₉ N ₃ O ₃ |
| DENSITY: | 1.10 – 1.15 g/ml (9.2 – 9.5 lb/gal) |
| pH: | 7.0 – 8.0 |
| WATER SOLUBILITY: | Completely soluble. |

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

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

INCOMPATIBILITY WITH OTHER 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.

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

| | |
|-----------------------------------|-------------------|
| Oral LD ₅₀ (rat) | - > 5,000 mg/Kg |
| Dermal LD ₅₀ (rat) | - > 5,000 mg/Kg |
| Inhalation LC ₅₀ (rat) | - > 2.5 mg/L |
| Eye Irritation (rabbit) | - Slight irritant |
| Skin Irritation (rabbit) | - Non-irritant |
| Sensitization (guinea pig) | - Non-sensitizer |

CARCINOGEN STATUS:

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

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

ADDITIONAL DATA: Not known to exhibit reproductive or teratogenic (birth defect) effects.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwaters or rinsate. Products containing imazethapyr may leach in certain permeable soil types.

FISH TOXICITY: (Technical)

96 hour LC₅₀, Rainbow trout - 340 mg/L

96 hour LC₅₀, Bluegill - 420 mg/L

AVIAN TOXICITY: (Technical)

Oral LD₅₀, Bobwhite quail - > 2,200 mg/Kg

Oral LD₅₀, Mallard duck - > 2,100 mg/Kg

BEE TOXICITY:

Contact LD₅₀ - > 100 ug/bee

SECTION 13 - DISPOSAL CONSIDERATIONS

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.

Refillable container: Refill this container with imazethapyr only. Do not reuse this container for any other purposes. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

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

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION: Not regulated by DOT

DOT HAZARD CLASS: N/A

UN NUMBER: N/A

DOT PACKING GROUP: N/A

DOT PRIMARY/SECONDARY LABEL: N/A

DOT PRIMARY/SECONDARY PLACARD: N/A

DOT EMERGENCY RESPONSE GUIDE #: N/A

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:
 311/312 Hazard Categories - Immediate health hazard
 313 Toxic Chemicals - Ammonia, aqueous solution

CALIFORNIA PROP 65 STATUS: Not listed

SECTION 16 - OTHER INFORMATION

| | | |
|---------------------------|--|---|
| HMIS HAZARD RATINGS | HEALTH | 1 |
| | FLAMMABILITY | 1 |
| | PHYSICAL HAZARD | 1 |
| | 4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal | |

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REVISED DATE: October, 2012

REVISED FOR: Revised Section 12 and Section 13 to match current EPA approved label.