

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 MASTER**

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

: Isopropylamine salt of N-phosphonomethyl glycine

PRODUCT CODE

: Imidazolinone and phosphanoglycine herbicides

: EPA Reg. No. 42750-147

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Isopropylamine Salt of Glyphosate	22.0	38641-94-0	Not estab.	Not estab.
Imazethapyr acid	1.8	81335-77-5	Not estab.	Not estab.

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

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

POTENTIAL HEALTH HAZARDS: Severely irritating to the eyes and skin. May be harmful if swallowed or absorbed through skin.

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 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 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 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. Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): Not applicable

FLAMMABLE LIMITS (LFL-UFL): Unknown

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

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 environmental damage from 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: Store in a well ventilated area. Keep closed in original container when not in use. Keep away from food, feed and drinking water. Stable under conditions of freezing and thawing. Shake well before using. Keep containers closed to avoid spills and contamination.

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 this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety glasses when working with concentrate or diluted material.

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:	Pale yellow liquid
ODOR:	Slight amine like odor
MOLECULAR WEIGHT (technical):	289.3
DENSITY:	1.10 g/ml (9.18 lb/gal)
pH:	5.7
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, phosphorous 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)	- > 2,000 mg/Kg
Inhalation LC ₅₀ (rat)	- > 4.0 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.

Groundwater Advisory: Imazethapyr has properties and characteristics associated with chemicals detected in groundwater. The use of imazethapyr in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes or reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Refer to product container label for complete Environmental Hazards and Groundwater Advisory instructions.

DO NOT apply this product through any type of irrigation system. Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide spray mixture.

FISH TOXICITY:

(Imazethapyr acid)
96 hour LC ₅₀ , Rainbow trout - 340 mg/L
96 hour LC ₅₀ , Bluegill - 420 mg/L
(Glyphosate acid)
96 hour LC ₅₀ , Rainbow trout – 8.2 mg/L
96 hour LC ₅₀ , Bluegill – 5.8 mg/L

AVIAN TOXICITY:

(Imazethapyr acid)
Oral LD ₅₀ , Bobwhite quail - > 2,200 mg/Kg
Oral LD ₅₀ , Mallard duck - > 2,100 mg/Kg
(Glyphosate acid)
Oral LD ₅₀ , Bobwhite quail – > 3,800 mg/Kg
Oral LD ₅₀ , Mallard duck – Unknown

SECTION 13 - DISPOSAL CONSIDERATIONS

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

CONTAINER HANDLING: Non-refillable containers: Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Refillable containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. When this container is empty, replace the cap and seal all openings that have been made during usage and return the container to the point of purchase, or to an alternate location designated by the manufacturer at the time of purchase of this product. If not returned, clean container the empty container and offer for recycling, if available. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the re-filler. If the container cannot be refilled, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refer to container label to determine if container is refillable and complete handling 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	None known

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: December, 2012
REVISED FOR: Revised Section 12 and Section 13 to match current EPA approved label.