

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**COMPANY ADDRESS:**

ALBAUGH, LLC
Ankeny, IA 50021

EMERGENCY TELEPHONE NUMBERS:

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

PRODUCT NAME

: **THUNDER MASTER**

CHEMICAL NAME

: Imazethapyr ammonium salt and Glyphosate isopropylamine salt

PRODUCT USE

: Herbicide

PRODUCT CODE

: EPA Reg. No 42750-147

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

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

Liquid

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 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Isopropylamine Salt of Glyphosate	22.0	38641-94-0
Imazethapyr acid	1.8	81335-77-5
Other ingredients	76.2	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 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 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.

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.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

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

SECTION 5 - FIRE FIGHTING MEASURES

National Fire Protection Rating (NFPA)

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

FLASHPOINT: N/A**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 irritating and toxic gases due to thermal decomposition or combustion.**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 runoff.

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.

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

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:** 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, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Isopropylamine salt of glyphosate	Not listed	Not listed
Imazethapyr acid	Not listed	Not listed

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to minimize worker exposure to airborne contaminants and prevent accumulation of 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:

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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Odor:	No data
pH:	4.4 – 5.4
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:	
Vapor Density:	Not applicable
Density:	1.14 – 1.18 g/ml (9.51 – 9.85 lb/gal)*
Solubility:	Emulsifies
Partition Coefficient:	
Auto-Ignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	44.6 cSt (20°C); 17.4 cSt (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, phosphorous and carbon.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity values from a similar but not identical formulation.

ACUTE TOXICITY:

Oral LD ₅₀ (rat)	- > 4,000 mg/kg
Dermal LD ₅₀ (rat)	- > 2,000 mg/kg
Inhalation LC ₅₀ (rat)	- > 4.0 mg/L
Eye Irritation (rabbit)	- Sever irritant
Skin Irritation (rabbit)	- Slight irritant
Sensitization (guinea pig)	- Non-sensitizer

CARCINOGEN STATUS:

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

TERATOGENICITY: No evidence of reproductive or developmental effects for either active ingredient.

MUTAGENICITY: No evidence of mutagenic effects during in vivo or in vitro studies.

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.

FATE: Glyphosate IPA disassociates to the parent acid rapidly in the soil which adsorbs strongly to soil with a half life of 2 - 180 days depending on soil type and weather conditions. Imazethapyr is moderately persistent with high mobility potential in soil depending on soil type.

FISH TOXICITY: (imazethapyr acid)

96 hour LC₅₀, Rainbow trout - 340 mg/L
96 hour LC₅₀, Bluegill - 420 mg/L

FISH TOXICITY: (glyphosate acid)

96 hour LC₅₀, Rainbow trout – 5.4 mg/L
96 hour LC₅₀, Bluegill – 7.3 mg/L

AVIAN TOXICITY: (imazethapyr acid)

Oral LD₅₀, Bobwhite quail - >2,200 mg/Kg
Oral LD₅₀, Mallard duck - >2,100 mg/Kg

AVIAN TOXICITY: (glyphosate acid)

Dietary LC₅₀, Bobwhite quail – >5,600 mg/Kg
Dietary LC₅₀, Mallard duck – >5,600 mg/Kg

BEE TOXICITY: (imazethapyr acid) >100 ug/bee

BEE TOXICITY: (glyphosate acid) >100 ug/bee

SECTION 13 - DISPOSAL CONSIDERATIONS

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

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

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 Immediate health hazard
313 Toxic Chemicals None known
CALIFORNIA PROP 65 STATUS: Not listed

TSCA: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH	1
	FLAMMABILITY	0
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 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: December, 2014

REFERENCE: Revised for GHS compliance