

**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**  
CHEMICAL NAME : Imazethapyr ammonium salt  
PRODUCT USE : Herbicide  
PRODUCT CODE : EPA Reg. No 42750-146

**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
Imazethapyr, Ammonium salt	22.87	101917-66-2
Other ingredients	77.13	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 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 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 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.

**SECTION 5 - FIRE FIGHTING MEASURES**

National Fire Protection Rating (NFPA)

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 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
Imazethapyr 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.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Brown transparent liquid
<b>Odor:</b>	Weak odor
<b>pH:</b>	6.1 – 7.1
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	115°C
<b>Flash Point:</b>	>115°C
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	<0.013 mPa (60°C) (Imazethapyr)
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.10 – 1.14 g/ml (9.18 – 9.51 lb/gal)*
<b>Solubility:</b>	No data
<b>Partition Coefficient:</b>	log P <sub>ow</sub> = 1.04 (pH5), 1.49 (pH7), 1.20 (pH9) (all 25°C) (Imazethapyr)
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	7.21 mm <sup>2</sup> /s (20°C); 4.98 mm <sup>2</sup> /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:**

Oral LD <sub>50</sub> (rat)	- >5,000 mg/Kg
Dermal LD <sub>50</sub> (rat)	- >5,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	- >2.6 mg/L
Eye Irritation (rabbit)	- Non-irritant
Skin Irritation (rabbit)	- Slight irritant
Sensitization (guinea pig)	- Not a sensitizer

**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:** 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.

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

**FISH TOXICITY:** (Technical)

96 hour LC <sub>50</sub> , Rainbow trout -	340 mg/L
96 hour LC <sub>50</sub> , Bluegill -	420 mg/L

**AVIAN TOXICITY:** (Technical)

Oral LD <sub>50</sub> , Bobwhite quail -	> 2,200 mg/Kg
Oral LD <sub>50</sub> , Mallard duck -	> 2,100 mg/Kg

**BEE TOXICITY:** (Technical)

Contact LD <sub>50</sub> -	> 100 ug/bee
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**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. 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.

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 - 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	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:** October, 2014

**REFERENCE:** Revised for GHS compliance