

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

ALBAUGH, LLC  
Ankeny, IA 50021  
1-800-247-8013

**EMERGENCY TELEPHONE NUMBERS:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call  
CHEMTREC Day or Night

- Within USA and Canada: 1-800-424-9300 CCN771
- Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

PRODUCT NAME : **BATTLE STAR GT**  
 CHEMICAL NAME : Ammonium salt of glyphosate and sodium salt of fomesafen  
 PRODUCT USE : Herbicide  
 PRODUCT CODE : EPA Reg. No 42750-307

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

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

Amber clear liquid

**HEALTH HAZARDS:** WARNING. Causes serious eye irritation.

**PHYSICAL HAZARDS:** May react with metals such as galvanized or mild steel to produce hydrogen gas which could form a highly combustible gas mixture.

**ENVIRONMENTAL HAZARDS:** Moderately toxic to fish and aquatic plants. May be toxic to non-target plants.

**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Ammonium Salt of Glyphosate	26.77	69254-40-6
Sodium Salt of fomesafen	5.72	108731-70-0
Inert Ingredients	67.51	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 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.

**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.

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

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

**FLASHPOINT:** N/A

**EXTINGUISHING MEDIA:** Use water spray, foam or dry chemical.

**FIRE AND EXPLOSION HAZARD:** May decompose in fire due releasing irritating or toxic gases.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical extinguishing systems recommended to prevent environmental damage due to 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:** Self-contained breathing apparatus with full facepiece. Full firefighting turn-out gear (Bunker gear).

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, nitrogen oxides, phosphorous oxides.

**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, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash, or lime. 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. Wear appropriate safety equipment when handling.

**STORAGE:** Store in original container with lid tightly closed. Keep away from food, feed and drinking water. Store above 15° F (-10 C). If crystallized, warm to 80-90 F and redissolve by shaking container before using product.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION****EXPOSURE LIMITS (8 hour TWA, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Ammonium Salt of Glyphosate*	Not listed	Not listed
Sodium Salt of fomesafen	Not listed	Not listed

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to minimize exposure to airborne contaminants. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:**

**EYE PROTECTION** - Safety goggles when mixing, loading or cleaning equipment is recommended.

**CLOTHING** – Long-sleeved shirt and long pants, Shoes plus socks,

**GLOVES** – Chemical resistant gloves when mixing, loading or otherwise handling concentrate.

Follow manufacturer's instructions for cleaning/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>	Dark Amber semi-transparent liquid
<b>Odor:</b>	Slight ammonia like odor
<b>pH:</b>	5.3 – 6.3
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	Not applicable
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	Not flammable
<b>Flammability Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	9 x 10 <sup>-3</sup> mPa (25°C) (Glyphosate ammonium) <4 x 10 <sup>-3</sup> mPa (20°C) (Fomesafen)
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.19 – 1.23 g/ml (9.93 – 10.26 lb/gl)*
<b>Solubility:</b>	No data
<b>Partition Coefficient:</b>	log Pow = < -3.7 (20°C) (Glyphosate ammonium) log Pow = 3.4 (pH 4) (Fomesafen)
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	111.2 cSt (20°C); 41.4 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 temperatures above (115°F, 46°C) and below 25°F (-5°C).

**INCOMPATIBLE MATERIALS:** Strong oxidizers or bases, mild and galvanized steel.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, Nitrogen oxides, phosphorous oxides.

**SECTION 11 - TOXICOLOGICAL INFORMATION****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)	>2.05 mg/L (not DOT regulated)
Eye Irritation (rabbit)	Moderately irritating
Skin Irritation (rabbit)	Slightly irritating
Sensitization (guinea pig)	Not a contact sensitizer

**CARCINOGEN STATUS:**

OSHA	- Not listed
NTP	- Not listed
IARC	- 2A*

\* Not carcinogenic in rats or mice. Listed as Category 2A by the International Agency for Research on Cancer (IARC) but expert opinion based on weight of evidence is that classification as a carcinogen is not warranted.

**TERATOGENICITY:** Limited evidence of reproductive or developmental effects only at maternally toxic doses for fomesafen and glyphosate.

**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. Do not apply when weather conditions favor drift from target area. Fomesafen is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**FATE:** Glyphosate binds to soil and is immobile in soil. Fomesafen is persistent and very mobile in soil depending on soil type and weather conditions.

**FISH TOXICITY:** (Glyphosate acid)

96 hour LC<sub>50</sub>, Rainbow trout – 8.2 mg/L  
 96 hour LC<sub>50</sub>, Bluegill – 5.8 mg/L

**FISH TOXICITY:** (fomesafen)

96 hour LC<sub>50</sub>, Rainbow trout - 680 ppm  
 96 hour LC<sub>50</sub>, Bluegill - 1,500 mg/L

**AVIAN TOXICITY:** (Glyphosate acid)

Oral LD<sub>50</sub>, Bobwhite quail – >4,000 ppm  
 Oral LD<sub>50</sub>, Mallard duck – >4,000 ppm

**AVIAN TOXICITY:** (fomesafen)

Dietary LC<sub>50</sub>, Bobwhite quail - > 20,000 mg/Kg  
 Dietary LC<sub>50</sub>, Mallard duck – > 20,000 mg/Kg

**HONEY BEE:** > 100 ug/bee

**HONEY BEE:** Unknown

**SECTION 13 - DISPOSAL CONSIDERATIONS**

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

**WASTE:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue.

**CONTAINER:** Non-refillable containers: Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Refillable containers: Refill this container with glyphosate only. 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 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 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:** N/A

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:** Not listed

**SARA TITLE III STATUS:**

311/312 Hazard Categories – Immediate Health  
 313 Toxic Chemicals – None known

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

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	2
	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:** September, 2016

**REFERENCE:** Initial release