MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: EMERGENCY TELEPHONE NUMBERS:

ALBAUGH, INC. (800) 424-9300 (CHEMTREC, transportation and spills)

Ankeny, IA 50021

PRODUCT NAME : GLY STAR ORIGINAL

CHEMICAL NAME : Isopropylamine Salt of Glyphosate

CHEMICAL FAMILY : Herbicide

PRODUCT CODE : EPA Reg. No. 42750-60

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Isopropylamine Salt of Glyphosate*	41.0 %	38641-94-0	NOT EST	NOT EST
Inert Ingredients	59.0 %	n/a	n/a	n/a

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

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

HEALTH HAZARDS: Moderate eye irritant.

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 pants. May be toxic to non-target plants.

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.

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

FLASH POINT (method): Will not flash. FLAMMABLE LIMITS: Not Established

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

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

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 run off.

FIREFIGHTING 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

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.

Wear appropriate personal protection equipment. (See Section 8 Exposure Controls, Personal Protection.)

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

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): 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. 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 – Waterproof gloves when mixing, loading or cleaning equipment is recommended.

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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Clear yellow to amber liquid.

ODOR: Slight amine like.

SPECIFIC GRAVITY: 1.14 – 1.20 g/ml (9.55 – 10.05 lb/gl)*

pH: 4.4

WATER SOLUBILITY: Emulsifies.

^{*}Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.

CONDITIONS TO AVOID: Avoid temperatures above (115°F, 46°C) and below 25°F (-5°C).

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers or bases, mild and galvanized steel. **HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, Nitrogen oxides, phosphorous oxides.

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD₅₀ (rat) -> 5,000 mg/kg

Dermal LD₅₀ (rat) -> 5,000 mg/kg (male)

Inhalation LC_{50} (rat) -> 2.5 mg/L Eye Irritation (rabbit) - Moderate Skin Irritation (rabbit) - Mild

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: None

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

FISH TOXICITY: (Glyphosate acid) 96 hour LC₅₀, Rainbow trout – 8.2 mg/L 96 hour LC₅₀, Bluegill – 5.8 mg/L **AVIAN TOXICITY:** (Glyphosate acid) Oral LD₅₀, Bobwhite quail – > 3,800 mg/Kg Oral LD₅₀, Mallard duck – Unknown

BEE: Non-toxic

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

DOT SHIPPING DESCRIPTION: Not regulated by DOT

DOT HAZARD CLASS:

UN NUMBER:

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 313 Toxic Chemicals – None known

CALIFORNIA PROP 65: Not listed

SECTION 16 - OTHER INFORMATION

LIMIC	HEALTH			2		
HMIS HAZARD RATINGS	FLAMMABILITY		0			
	PHYSICAL HAZARD			1		
	4=Severe	3=Serious	2=M	oderate	1=Slight	0=Minimal

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REVISED DATE: August, 2012

REFERENCE: Revised Section 13 to match EPA approved label.