

MATERIAL SAFETY DATA SHEET

TOMAHAWK 5

1. **CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**
UNITED SUPPLIERS, INC.
BOX 538
Eldora, IA 50627



PRODUCT NAME: TOMAHAWK 5

EPA REG. NO.: 33270-15

CHEMICAL NAME: Isopropylamine salt of glyphosate

CHEMICAL FAMILY: Herbicide

EMERGENCY CONTACT: In the event of chemical emergencies involving a spill, leak, fire exposure, or accident involving chemicals -- call **CHEMTREC (800) 424-9300**.

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION: Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. In case of contact, wash skin with soap and water; for eyes, flush with water for 15 minutes and get medical attention.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Glyphosate	53.8	38641-94-0	Not listed
Other ingredients	46.2	-----	-----

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: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Have person sip a glass of water if able to swallow. 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT have the product container or label with you when calling a poison control center or doctor.

5. FIRE FIGHTING MEASURES

FLASH POINT (^oF/Test Method): >200°F

FLAMMABLE LIMITS (LFL & UFL): Not established

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

HAZARDOUS COMBUSTION PRODUCTS: Toxic fumes may be emitted in a fire situation.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. 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.

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

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece. Full fire fighting turn-out gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of carbon, nitrogen and phosphorous.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Pick up spilled liquid with absorbent material and sweep up for disposal. Place it and damaged unusable containers in a landfill appropriate for non hazardous chemical waste. Check local, state and federal regulations for proper disposal. After removal, scrub area with detergent and water, then neutralize with dilute alkaline solutions of soda ash or lime. **NOTE:** Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water. Always wear proper protective equipment when working with the product.

7. HANDLING AND STORAGE

HANDLING: Wash hands after handling, and 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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store above 15°F, in original container with lid tightly closed, away from children and animals. Keep away from water, foodstuffs, feed or seed. If crystallized, warm to 80° - 90°F and redissolve by shaking container before using product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit.

EYE PROTECTION: Wear chemical goggles or shielded safety glasses when handling and mixing product.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.

Personal Protective Equipment (PPE): Eye protection, long sleeved shirt and long pants, shoes plus socks and chemical resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear yellow to amber liquid, mild amine

SPECIFIC GRAVITY (Water=1): 1.18 – 1.25 g/ml

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample.

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

SOLUBILITY: Emulsifies **pH:** 4.6

BULK DENSITY: 9.90 – 10.45 lbs/gal.

BOILING POINT: Not established

EVAPORATION RATE: Not established

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Avoid Extreme temperatures, <15°F or >115°F.

IMCOMPATIBILITY: Strong oxidizing agents or bases, mild and galvanized steel.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, nitrogen and/or phosphorous.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀: >5,000 mg/kg (female)

Eye Irritation: Causes moderate irritation

Inhalation LC₅₀: >2.50 mg/L

Carcinogenic Potential: None listed in OSHA, NTP, IARC, or ACGIH

Acute Dermal LD₅₀: >5,000 mg/kg

Skin Irritation: Causes mild irritation

Skin sensitization: Not a contact sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Refer to the label for aquatic uses (Wetland Sites).

FISH TOXICITY: (Glyphosate Acid)

96 hour LC₅₀, Rainbow trout – 8.2 mg/L

96 hour LC₅₀, Bluegill Sunfish – 5.8 mg/L

AVIAN TOXICITY: (Glyphosate Acid)

Oral LD₅₀, Bobwhite quail - 3,800 mg/Kg

Oral LC₅₀, Mallard duck - > Unknown

BEE TOXICITY: Not toxic

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 wash waters.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: 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. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

13. DISPOSAL CONSIDERATIONS (Continued)

Non-Refillable Containers: Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

Refillable Containers: Do not reuse the container except for refill in accordance with a valid United Suppliers repackaging or toll packaging agreement. To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinseate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

14. TRANSPORT INFORMATION

DOT HAZARD CLASS: Not regulated by DOT

UN NUMBER: Not Applicable

DOT PACKING GROUP: Not Applicable

DOT PRIMARY/SECONDARY LABEL: None

DOT PRIMARY/SECONDARY PLACARD: None

15. REGULATORY INFORMATION

NFPA RATINGS: Least = 0 Slight = 1 Moderate = 2 High = 3 Severe = 4
Ratings for this product: Health – 2 Flammability – 0 Instability – 1 Special Hazards – None Specified

SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
 Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Not listed

CA Proposition 65: Not listed

16. OTHER

Date of Issue: 04/20/10 Supersedes: New

DISCLAIMER OF LIABILITY

United Suppliers, Inc. makes no warranty, representation, or guarantee as to the accuracy, sufficiency, or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity, and suitability of his own use, handling, and disposal of this product. Since actual use by others is beyond our control; no warranty, expressed or implied, is made by United Suppliers, Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of this product, nor does United Suppliers, Inc. assume liability arising out of the use by others of this product referred to herein. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other materials or in any process.