

# SAFETY DATA SHEET

MAKAZE®

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### FORMULATED FOR:

LOVELAND PRODUCTS, INC.  
P.O. Box 1286 • Greeley, CO 80632-1286

**24-Hour Emergency Phone:** 1-800-424-9300  
**Medical Emergencies:** 1-866-944-8565  
**U.S. Coast Guard National Response Center:** 1-800-424-8802

**PRODUCT NAME:** MAKAZE®  
**CHEMICAL NAME:** Glyphosate: N- (phosphonomethyl)glycine, in the form of its Isopropylamine salt  
**CHEMICAL FAMILY:** Group 9Herbicide  
**EPA REG. NO.:** 34704-890  
**MSDS Number:** 000890-13-LPI      **MSDS Revisions:** Sections 1, 8, 13 and 15      **Date of Issue:** 08/26/13      **Supersedes:** 02/04/09

## 2. HAZARDS IDENTIFICATION SUMMARY

**KEEP OUT OF REACH OF CHILDREN – CAUTION –** Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

This product is clear, viscous yellow-colored solution with amine odor. Primary routes of entry are Inhalation, eye contact and skin contact.

## 3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Isopropylamine salt of Glyphosate	41.00	38641-94-0	none established
Inert Ingredients	59.00		

## 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.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.** Have the product container or label with you when calling a poison control center or doctor.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT (°F/Test Method):** None  
**FLAMMABLE LIMITS (LFL & UFL):** Not established  
**EXTINGUISHING MEDIA:** Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.  
**HAZARDOUS COMBUSTION PRODUCTS:** Toxic fumes may be emitted in a fire situation.  
**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus and full protective clothing. Fight fire from upwind.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Keep containers cool with water spray.

## 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. Sweep up material. Place it and damaged unusable containers in a landfill approved for pesticides. Check local, state and federal regulations for proper disposal.

**CAUTION:** Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water.

## 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 10°F (-12.2°C) to keep product from crystallizing. Crystals will settle to the bottom of the container. If allowed to crystallize, place in a warm room at 68°F (20°C) for several days to redissolve. Roll or shake container or recirculate in mini-bulk or bulk containers to mix well before using. Keep tightly closed. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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

**RESPIRATORY PROTECTION:** Not normally required, if mists/vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator for organic vapor and dust/mist.

**EYE PROTECTION:** Chemical goggles or shielded safety glasses.

**SKIN PROTECTION:** Wear protective clothing: long-sleeved shirts and pants, and shoes plus socks. Wear chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
For product	none established	none established

**Personal Protective Equipment (PPE): Applicators and other handlers must wear:** long sleeved shirt and long pants, shoes plus socks, and chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. Discard clothing and other absorbent material that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE AND ODOR:</b> Clear, viscous yellow-colored solution with amine odor	<b>BULK DENSITY:</b> 9.75 lbs/gal.	<b>SOLUBILITY:</b> Soluble
<b>SPECIFIC GRAVITY (Water = 1):</b> 1.1680 g/ml	<b>BOILING POINT:</b> Not established	<b>pH:</b> 4.4 (1% solution))
<b>VAPOR PRESSURE:</b> Not established	<b>EVAPORATION RATE:</b> Not established	
<b>PERCENT VOLATILE (by volume):</b> 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.

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Use of galvanized or unlined steel.

**INCOMPATIBILITY:** This product and its spray solutions will react with galvanized or unlined steel to produce hydrogen gas that may form a highly combustible gas mixture, which could flash or explode if ignited. Acids and bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Will emit toxic fumes as it burns.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

<b>Acute Oral LD<sub>50</sub> (rat):</b> >5000 mg/kg	<b>Acute Dermal LD<sub>50</sub> (rabbit):</b> >5000 mg/kg
<b>Eye Irritation (rabbit):</b> Causes moderate eye irritation	<b>Skin Irritation (rabbit):</b> Essentially non-irritating
<b>Inhalation LC<sub>50</sub> (rat):</b> >7.03 mg/L (4 Hr. Aerosol)	<b>Skin sensitization (guinea pig):</b> Not a sensitizer
<b>Carcinogenic Potential:</b> None listed in OSHA, NTP, IARC or ACGIH	

**12. ECOLOGICAL INFORMATION**

This product is slightly to moderately toxic in aquatic studies. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. This product has been shown to be practically non-toxic to avian species following sub-acute dietary exposure. Do not contaminate water when disposing of equipment wash waters. Do not apply when weather conditions favor drift from target area.

**13. DISPOSAL CONSIDERATIONS**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed 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 cleansed, reconditioned, or destroyed. Container Disposal Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Disposal Considerations, continued**

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip.

**Container Disposal: Nonrefillable container.** Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.

**14. TRANSPORT INFORMATION**

**DOT Shipping Description:** NOT REGULATED USDOT.

**U.S. Surface Freight Classification:** COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

**Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.**

**15. REGULATORY INFORMATION**

NFPA & HMIS Hazard Ratings:		NFPA		HMIS		
	1	Health	0	Least	1	Health
	1	Flammability	1	Slight	1	Flammability
	1	Instability	2	Moderate	1	Reactivity
			3	High	B	PPE
			4	Severe		

**SARA Hazard Notification/Reporting**

**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

**RCRA Waste Code:** Not listed

**CA Proposition 65:** Not listed

**CAUTION –** This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

**16. OTHER INFORMATION**

**MSDS STATUS:** Sections 1, 8, 13 and 15 revised

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental/ Regulatory Services

®Makaze is a registered trademark of Loveland Products, Inc.

**Disclaimer and Limitation of Liability:** This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.