



SAFETY DATA SHEET

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) call CHEMTREC at 1-800-424-9300

1. Product Identification:

Product Name:

TOP DOG® GLYCEL 41% PLUS HERBICIDE

Manufacturer: Repar Corporation
Telephone: 202-223-1424
Address: P.O. Box 4321
City, State, Zip: Silver Spring, MD 20914
Emergency Phone: 202-223-1424 (Monday-Friday, 10:00 a.m. – 6:00 p.m.)
24 Hour Emergency Phone (CHEMTREC): 1-800-424-9300
U.S. EPA Registration No.: 86004-3-69361
Product Use: Herbicide

2. Health Hazard(s) Identification:

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

Clear amber viscous liquid with characteristic odor.

HEALTH HAZARDS: WARNING! Moderately irritating to eyes.

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.



3. Composition/Ingredient Information:

Chemical Names:

Active Ingredient:	CAS Number	Percentage by Weight
N-(phosphonomethyl)glycine isopropylamine salt	3641-94-0	41.0%

Common Name of Active Ingredient:

Glyphosate, isopropylamine salt	3641-94-0	41.0%
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Other Ingredients:

Inert Ingredients	N/A	59.0%
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*Inert ingredient identity is confidential business information

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.

If Swallowed:

- 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 unconscious person.

If on Skin or Clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.

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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically. The compound does not cause any definite symptoms that would be diagnostic. Contact with eyes may cause irritation.

5. Fire Fighting Measures:

EXTINGUISHING MEDIA: Water, dry chemical, carbon dioxide (CO₂), foam

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: During fire toxic gasses of Carbon monoxide (CO), nitrogen oxides (NO_x), phosphorus oxides (P_xO_y) may be formed by thermal decomposition.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS: Self-contained breathing apparatus should be worn by fire fighters. Equipment should be thoroughly decontaminated after use.

6. Accidental Release Measures:

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

PERSONAL PRECAUTIONS: Follow protective measures indicated in Section 8: Exposure Control/Personal Protection for both emergency and non emergency personnel.

ENVIRONMENTAL PRECAUTIONS: Minimize spread. Keep out of drains, sewers ditches and water ways.

METHODS FOR CLEANING UP:

SMALL QUANTITIES: Flush spill area with water

LARGE QUANTITIES: Absorb in earth, sand or absorbent material. Dig up heavily contaminated soil. Collect in appropriate containers for disposal. Flush residues with small quantities of water. Minimize use of water to prevent environmental contamination.

7. Handling and Storage:

HANDLING AND STORAGE PRECAUTIONS:

HANDLING: Avoid unintentional release, contact with skin, eyes, or clothing through handling. Avoid contact with bases or galvanized steel through handling. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using toilet.

STORAGE: Keep container closed to prevent spills and contamination. Do not contaminate water, foodstuffs, feed or seed by storage. Avoid contact with bases or galvanized steel through storage.

8. Exposure Control/Personal Protection:

EXPOSURE GUIDELINES: Occupational exposure limit (OEL) and biological limit values (BLV) for Glyphosate – CAS No.: 3641-94-0 not established, control banding approach not available.

APPROPRIATE ENGINEERING CONTROLS: Use sufficient ventilation to avoid the buildup of vapors.

WORK/HYGIENE PRACTICES: Emergency shower and eyewash facilities should be in close proximity (ANSI Z358.1). Launder contaminated clothing and wash hands and face after use. Discard clothing or 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/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

The following personal protective equipment should be used in conjunction with exposure control measures

EYE/FACE PROTECTION: Protective eyewear

SKIN PROTECTION: Coveralls and shoes plus socks

RESPIRATORY PROTECTION: NIOSH/MSHA approved respirator, following manufacturer's recommendations, should be used as a precautionary measure where airborne contaminants may occur. (OSHA Standard 29 CFR 1910.134).

HAND PROTECTION: Chemical resistant gloves greater than 14 mils in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber

9. Physical & Chemical Properties:

APPEARANCE:	Clear – amber liquid
ODOR:	characteristic odor
ODOR THRESHOLD:	ND
pH:	4.4 – 5.0
MELTING POINT:	NA
BOILING POINT:	NA
FLASH POINT:	NA
EVAPORATION RATE:	ND

FLAMMABILITY (solid, gas):	not flammable
LOWER FLAMMABILITY LIMIT:	ND
UPPER FLAMMABILITY LIMIT:	ND
VAPOR PRESSURE:	NA
VAPOR DENSITY:	ND
RELATIVE DENSITY (H₂O = 1):	1.16@ 77°F (25°C)
SOLUBILITY:	Readily soluble in water
PARTITION COEFFICIENT (n-octanol/water):	NA
AUTO-IGNITION TEMPERATURE:	846°F (452°C)
DECOMPOSITION TEMPERATURE:	ND
VISCOSITY:	48.6 cP @ 77°F (25°C)

10. Stability & Reactivity:

REACTIVITY: Reacts with galvanized steel to form flammable hydrogen gas, and bases liberating heat.

STABILITY: Stable under normal conditions of handling and storage.

HAZARDOUS REACTIONS: polymerization does not occur

CONDITIONS TO AVOID: ND

INCOMPATIBLE MATERIALS: Galvanized steel and bases

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products of Carbon monoxide (CO), nitrogen oxides (NO_x), phosphorus oxides (P_xO_y) may be formed.

11. Toxicological Information:

Toxicological Data for Top Dog® Glycel 41% Plus Herbicide:

Toxicity information on active ingredient glyphosate:

Oral LD ₅₀ (rat):	>5,000 mg/kg bw
Dermal LD ₅₀ (rabbit, rat):	>5,000 mg/kg bw
Inhalation LC ₅₀ (rat):	2.9 mg/L
Skin irritation (rabbit):	Essential non irritating
Skin sensitization (guinea pig):	Non sensitizing
Eye irritation (rabbit):	Moderate irritation
Specific target organ toxicity (STOT):	
STOT-single exposure:	ND
STOT-repeated exposure:	ND
Aspiration hazard:	pneumonitis (excessive, intentional misuse)

ROUTES OF EXPOSURE:

INHALATION: May cause breathing difficulty

SKIN: May be harmful if absorbed through the skin. Slightly irritating to skin

EYE CONTACT: Moderately irritating to the eye

INGESTION: May be harmful if swallowed

ADVERSE EFFECTS AND SYMPTOMS (ingestion, short term, case reports): Gastro-intestinal effects: irritation, nausea/vomiting, diarrhea.

DELAYED OR IMMEDIATE EFFECTS FROM SHORT OR LONG TERM EXPOSURE (excessive, intentional misuse): nausea/vomiting, diarrhea, abdominal pain, bloody vomiting, abnormal heart rhythm, decreased heart output, disturbances of fluid and electrolyte regulation, abnormally decreased blood volume, elevated serum amylase, fluid loss, no cholinesterase inhibition, elevated serum transaminases, mild acidosis.

NUMERICAL MEASURES OF TOXICITY: ND

INTERACTIVE EFFECTS: ND

Toxicological Data for Glyphosate Technical:

Mutagenicity:	Not mutagenic
Carcinogenicity:	Non carcinogenic
Reproductive Toxicity:	Not primary reproductive toxicant
Developmental Toxicity:	Not a primary developmental toxicant

12. Ecological Information:

Ecological Data for Top Dog® Glycel 41% Plus Herbicide:

96 hours LC ₅₀	Bluegill Sunfish	5.8 mg/L
96 hours LC ₅₀	Rainbow trout	8.2 mg/L
48 hours EC ₅₀	Water flea	11 mg/L
96 hours EC ₅₀	Green algae	2.6 mg/L
5 days LD ₅₀	Bobwhite quail	>5,620 mg/kg diet
5 days LD ₅₀	Mallard Duck	>5,620 mg/kg diet
48 hours oral LD ₅₀	Honey bee	>395 µg/bee
48 hours contact LD ₅₀	Honey bee	>338 µg/bee
14 days acute toxicity	Earthworm	>5,000 mg/kg dry soil

Ecological Data for Glyphosate Technical:

PERSISTENCE AND DEGRADABILITY: Soil half-life 2 – 174 days, Water (aerobic) half-life <7 days. Koc: 884 – 60,000 L/kg

BIOACCUMULATIVE POTENTIAL: No significant bioaccumulation is expected.

Whole fish: BCF: < 1

MOBILITY IN SOIL: Absorbs strongly to soil.

13. Disposal Considerations:

PESTICIDE DISPOSAL: Do not contaminate water, foodstuffs, feed, seed, waterways or sewers by 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. Do not allow pesticide to enter sewers or waterways through disposal.

CONTAINER DISPOSAL: Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

14. Transport Information:

SHIPPING DESCRIPTION: Not regulated by USDOT (Ground transport)

DOT HAZARD CLASS:	N/A
IDENTIFICATION NUMBER:	N/A
DOT PACKING GROUP:	N/A

15. Regulatory Information:

This chemical is a pesticide product registered with the U.S. 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, and for workplace labels of non-pesticide chemicals.

Following is the hazard information as required on the pesticide label:

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing.

16. Other Information:

HMIS HAZARD RATING	HEALTH	1
	FLAMMABILITY	0
	PHYSICAL HAZARD	1
	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 Repair's knowledge. Repair 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:	April 1, 2017
REFERENCE:	Revised for GHS compliance