

Glyphosate 54

Safety Data Sheet (SDS)

SECTION 1: IDENTIFICATION

Product Name: Glyphosate 54

EPA Reg. No: 94398-1-87659

Active Ingredient: Isopropylamine Salt of Glyphosate

Chemical Class: Broad spectrum post-emergence herbicide

Company address: RedEagle International LLC
5143 S. Lakeland Drive, Suite 4
Lakeland, FL 33813

EMERGENCY TELEPHONE NUMBERS:

CHEMTREC for transportation and spills call 1-800-424-9300.

SECTION 2: HAZARD IDENTIFICATION

WARNING

Causes eye irritation (H320)

Harmful to aquatic life (H402)

HAZARD CLASSIFICATION

Health Hazards	Category	Physical Hazards	Category
Serious eye damage / eye irritation	2B	None	--
		Environmental Hazards	Category
		Hazardous to the aquatic environment, short-term	3

HAZARDS NOT REQUIRING CLASSIFICATION

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Do not mix or allow contact with oxidizing agents. Hazardous chemical reactions may occur.

PRECAUTIONARY STATEMENTS

Wash hands and exposed skin thoroughly after handling. (P264)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice / attention. (P305+P351+338+P337+P313)

Avoid release to the environment not in accordance with the product label. (P273)

Dispose of contents / container in accordance with local regulations. Refer to the product label for specific disposal instructions. (P501)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS #</u>	<u>Composition</u>
Glyphosate Isopropylamine salt	N-(phosphonomethyl)glycine, in the form of its Isopropylamine salt	38641-94-0	53.8

Note: Ingredients not otherwise specified are proprietary and non-hazardous.

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. You may also contact 1-800-222-1222, collect day or night, for emergency medical treatment information.

SECTION 5: FIRE-FIGHTING MEASURES

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Category	Rating*
Health	1
Flammability	0
Reactivity	1
*4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

FLASH POINT (method):	Not flammable
FLAMMABLE LIMITS:	Not applicable
FIRE AND EXPLOSION HAZARD:	Thermal decomposition during a fire can produce fumes and irritating gases.
EXTINGUISHING MEDIA:	Use dry foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material. Minimize the use of water to avoid environmental contamination.
FIRE FIGHTING INSTRUCTIONS:	Evacuate the area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire-extinguishing systems are preferred to prevent environmental damage with excessive water run-off.
FIRE FIGHTING EQUIPMENT:	Self-contained breathing apparatus with full face-piece. Full firefighting turn-out gear (Bunker gear).
HAZARDOUS COMBUSTION PRODUCTS:	Carbon monoxide, nitrogen oxides, and phosphorus oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Clean up spills immediately, observing Section 8 of this document. Isolate hazard area/Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills with sand, vermiculite or other inert absorbent. Place contaminated material in an 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 absorbent material to solidify and scrape up for disposal. After removal, scrub the area with detergent and eater and neutralize with dilute alkaline solutions of soda ash or lime.

Do not allow wash water to enter waterways.

SECTION 7: HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before re-use. 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.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode causing serious personal injury, if ignited by an open flame, spark, welder's torch, lighted cigarette or other ignition source.

Do not mix or allow contact with oxidizing agents. Hazardous chemical reactions may occur.

STORAGE: Store above 10°F (-12°C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk or bulk container to mix well before using.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS: (8-hour TLV):

MATERIAL:	% BY WT.	OSHA PEL	ACGIH TLV
Glyphosate isopropylamine salt	53.8%	Not established	Not established

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to minimize exposure to airborne contaminants. Local mechanical exhaust provides general and/or local exhaust ventilation. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear : long-sleeved shirt and long pants, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	pale yellow to brown clear liquid	pH:	4.88 in an aqueous solution
Odor:	mild characteristic	Kinematic viscosity:	not available
Melting/freezing point:	not available	Solubility:	completely soluble in water
Boiling point/Boiling range:	not available	Partition coefficient:	Log P _{ow} = 3.2 @ 25°C (glyphosate)
Flammability:	not available	Vapor pressure:	not available
Flammability limits (upper/lower):	not available	Specific gravity:	1.22-1.26 g/mL @ 20°C
Flash point:	not flammable	Relative vapor density:	not available
Auto-ignition temperature:	not available	Particle characteristics:	not available
Decomposition temperature:	not available		

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable, however may decompose if heated.
CHEMICAL CONDITIONS TO AVOID:	Avoid excessive heat and fire.
INCOMPATIBILITY WITH OTHER MATERIALS:	Reacts with galvanized steel or unlined mild steel to produce hydrogen, a highly flammable gas.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, nitrogen oxides, and phosphorus oxides.
HAZARDOUS POLYMERIZATION:	Product will not undergo polymerization.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

ORAL (rat):	The oral LD ₅₀ is > 5,000 mg/kg
DERMAL (rat):	The dermal LD ₅₀ is > 5,000mg/kg
INHALATION (rat):	The LC ₅₀ (4 hr) is > 2.5 mg/L
EYE IRRITATION (rabbit):	Causes moderate eye irritation
SKIN IRRITATION (rabbit):	May cause mild irritation
SKIN SENSITIZATION (guinea pig):	Not a skin sensitizer

CARCINOGENICITY:

EPA: Not likely to be carcinogenic to humans (glyphosate)

ACGIH: Not Listed

NTP: Not Listed

IARC: Group 2A (glyphosate): probable human carcinogen based on limited human evidence but expert opinion based on weight of evidence is that classification as a carcinogen is not warranted

OSHA: Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE/DEVELOPMENTAL TOXICITY: Developmental effects in rats and rabbits only in the presence of significant maternal toxicity. Reproductive effects in rats only in the presence of significant maternal toxicity.

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 wash waters or rinsate.

The following is for the active ingredient glyphosate and/or its salts:

AQUATIC TOXICITY:	LC ₅₀ (96 hr) for Bluegill sunfish – 43 mg/L NOAEC for Fathead minnow – 25.7 mg/L EC ₅₀ (48 hr) for Daphnia magna – 53.2 mg/L NOAEC (calculated) for Midge – 9.22 mg/L EC ₅₀ (4 day) for Green algae – 12.1 mg/L
AVIAN TOXICITY:	LC ₅₀ (5 days) for Bobwhite quail - > 4,600 mg/kg diet LC ₅₀ (5 days) for Mallard duck - > 4,600 mg/kg diet
NON-TARGETS:	LD50 (48 hr) Honey bee - > 100 µg/bee
BIOACCUMULATION:	BCF (whole fish) for Bluegill sunfish - < 1
DISSIPATION:	Soil, field (half life) - 2 to 174 days Koc - 884 to 60,000 l/kg Water, aerobic (half life) - < 7 days

SECTION 13: DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

CONTAINER DISPOSAL: Nonrefillable container. Refer to container labeling for additional disposal instructions.

SECTION 14: TRANSPORTATION INFORMATION

UN Number:	Not regulated
Proper Shipping Name:	Not regulated
Transport Hazard Class:	Not applicable
Packing Group:	Not applicable
Hazard Zone:	Not applicable
Marine Pollutant:	No
Hazardous Substance RQ:	None
Labels / Placards:	US-DOT: Not regulated for domestic ground transportation IMDG, IATA: Not regulated for transport under IMDG/IATA
Emergency Guide:	Not applicable

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transport organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

FIFRA –

This chemical is a pesticide product registered by the 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. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing.

DOMESTIC ANIMALS: This product is considered to be relatively non-toxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

SECTION 15: REGULATORY INFORMATION (CONT.)

ENVIRONMENTAL HAZARDS

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 wash waters.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Do not mix or allow contact with oxidizing agents. Hazardous chemical reactions may occur.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate

SARA Title III – Section 312 Threshold Planning Quantity

N/A


SARA Title III – Section 313 Reportable Ingredients

None

CERCLA –

Not listed

CALIFORNIA PROP 65 STATUS –

 **WARNING:** This product can expose you to glyphosate, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

CANADA –

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws and regulations. See SDS for health and safety information.