

ROYAL AGRO ORGANIC PVT LTD. INDIA.**MSDS OF – Glyphosate****Manufacturer of Product:-****Royal Agro Organic Pvt. Ltd.****Corporate Office:** - The Business Hub, Office No. 410 to 415, 4th Floor,

Above Ford Showroom, Karve Road,

Kothrud, Pune – 411038 (MAH- INDIA).

Contact No. : - 020 65257474**Factory:** - Gat No.-681, M.NO.1083, Pargaon-Khandala,
Dist.-Satara - 412802. (MAH-INDIA)**Contact No.** -09422405074, 9422867474.**E-mail:-** sales@royalgroupglobal.in**Visit us at:** - www.royalagro.com , www.royalgroupglobal.in**1. PRODUCT IDENTIFICATION****PRODUCT NAME:** Glyphosate 5.4**Active Ingredient:** Glyphosate (in the form of its isopropyl amine salt) **Chemical Name:**
N-(phosphonomethyl) glycine**Chemical Formula:** C₆H₁₇N₂O₅P**2. COMPOSITION / INFORMATION ON INGREDIENTS**

Composition	Content %
Glyphosate Isopropyl amine Salt	53.8%

3. HAZARD IDENTIFICATION**EMERGENCY OVERVIEW**

Harmful if inhaled. Avoid breathing vapour or spray mist.

Avoid contact with eyes, skin or clothing. Remove and wash contaminated clothing before reuse.

POTENTIAL HEALTH HAZARDS:**EYE** – Slight eye irritant. Undiluted product may cause pain, redness and tearing.**SKIN** - May be slightly irritating to the skin.**INGESTION** - No more than slightly toxic and no significant adverse health effects are expected to develop if a small amount (less than a mouthful) is swallowed.**POTENTIAL PHYSICAL HAZARDS:** May react with metals such as galvanized or mild steel to produce hydrogen gas, potentially forming a highly combustible gas mixture.

4. FIRST AID

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.

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 centre or doctor for treatment advice.

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or a doctor.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

5. FIRE-FIGHTING MEASURES

Flash point: Not applicable

Flammable Limits (LFL-UFL): N/A

Means of Extinction: Use water spray, foam or dry chemical.

Fire Fighting Instructions: Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapours and decomposition products. A foam or dry chemical fire extinguishing system is preferred to prevent environmental damage from excessive water runoff. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent/minimize run off.

Fire fighting Equipment: Self-contained breathing apparatus with full face piece. Wear full fire fighting turn-out gear (Bunker gear).

Hazardous Combustion Products: Carbon monoxide, nitrogen oxides, phosphorous oxides.

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately. Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8 "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of area.

SMALL SPILL: Absorb spill with inert material such as dry sand, vermiculite or fuller's earth, then place in a chemical waste container.

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.

7. HANDLING AND STORAGE

Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. Wash thoroughly after handling this product. Store above 10°F (-12°C) to keep product from crystallizing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: To keep exposure to airborne contaminants below exposure limits, proper ventilation is required when handling or using this product. Local mechanical exhaust ventilation may be required. Facilities storing or using this material should be equipped with an eyewash facility and a safety shower.

Eyewear: Safety goggles are recommended when mixing, loading or cleaning equipment.

Clothing: Wear long-sleeved shirt and long pants and shoes plus socks.

Gloves: Waterproof gloves are recommended when mixing, loading or cleaning equipment. NOTE: Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow, clear viscous liquid

Odour: Slight amine odour

pH: 4.6

Flashpoint (PMA-4): N/A

Specific Gravity: 1.2016 g/ml

Solubility in Water: Soluble

10. STABILITY AND REACTIVITY

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

CHEMICAL STABILITY: Product is normally stable. However, product may decompose if heated.

HAZARDOUS DECOMPOSITION PRODUCTS: Heat and fire may result in thermal decomposition and the release of nitrogen oxides, phosphorous oxides and carbon monoxide.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers and bases, unlined and galvanized steel.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

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

ACUTE DERMAL TOXICITY

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

ACUTE INHALATION TOXICITY

Inhalation LC50 (rat): > 7.03 mg/L

EYE IRRITANT None to Slight

SKIN IRRITATION None to Slight

SENSITIZATION Guinea pig – Non-Sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

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

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Do not contaminate water when cleaning equipment or disposing of equipment wash waters. Treatment of aquatic weeds can result in oxygen depletion due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

MAMMILIAN TOXICITY This product is considered to be relatively nontoxic 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, diarrhoea, 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.

FISH TOXICITY 96 hour LC50, Rainbow trout – 8.2 µg/L (technical) 96 hour LC50, Bluegill – 5.8 µg/L (technical)

AVIAN TOXICITY Oral LD50, Bobwhite quail – > 3,800 mg/kg (technical)

BEE TOXICITY: Non-toxic.

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 vapour and product residue. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed.

CONTAINER DISPOSAL: For plastic containers, triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For refillable containers, do not reuse the container except for refill in accordance with a valid Alligare Repackaging or Toll Repackaging Agreement. If not refilled or returned to the authorized repackaging facility, triple rinse container, then 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.

For bulk containers, triple rinse (or equivalent) and wash with appropriate cleaners before reusing.

14. TRANSPORT INFORMATION

MARINE POLLUTANT: Not Listed

EMERGENCY RESPONSE GUIDE: N/A

15. OTHER INFORMATION

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

16. EMERGENCY CONTACT DETAILS-

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