

MATERIAL SAFETY DATA SHEET

Quali-Pro® Glyphosate T&O

Page 1 of 4

1. IDENTIFICATION

Product name: **Quali-Pro® Glyphosate T&O**
 Chemical name of active ingredient(s): Glyphosate: N-(phosphonomethyl) glycine (in the form of its isopropylamine salt)
 Manufacturer: Makhteshim Agan of North America, Inc.
 4515 Falls of Neuse Road, Suite 300
 Raleigh, NC 27609
 Phone: 919-256-9300
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Isopropylamine salt of glyphosate	38641-94-0	41	NA	NA	NA	NA

3. HAZARDS IDENTIFICATIONS

PHYSICAL PROPERTIES:

Appearance: Amber brown liquid
 Odor: Slight

EMERGENCY OVERVIEW: WARNING. Causes substantial but temporary eye injury. Harmful if swallowed or inhaled. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist.

PHYSICAL OR CHEMICAL HAZARDS: When using spray solutions of this product, mix, store, and apply only in stainless steel, fiberglass, aluminum, plastic, or plastic-lined steel containers.

HAZARDOUS PRODUCTS OF COMBUSTION: Carbon monoxide (CO), nitrogen oxides (NOx), phosphorous oxides (PxOy)

LIKELY ROUTES OF EXPOSURE: Skin and eye contact.

SYMPTOMS OF ACUTE EXPOSURE: Causes temporary eye irritation. Not expected to produce significant adverse effects when recommended instructions are followed. Symptoms of acute exposure include gastrointestinal irritation, nausea, vomiting, diarrhea, increased fluid in lungs, and decreased blood pressure.

MEDICAL CONDITIONS LIKELY TO BE AGGRAVATED BY EXPOSURE: None known.

4. FIRST AID MEASURES

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> Immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Remove contact lenses, if present, after first 5 minutes then continue rinsing eyes. Get medical attention.
IF INHALED:	<ul style="list-style-type: none"> Remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
IF SWALLOWED:	<ul style="list-style-type: none"> This product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. Never give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of soap and water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact PROSAR 1-877-250-9291 for emergency medical treatment information.</p>	

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable

FLAMMABLE LIMITS: LFL/UFL: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABILITY: Not applicable

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

UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS: None

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide (CO), nitrogen oxides (NO_x), phosphorous oxides (P_xO_y)

FIRE-FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent unauthorized entry to the fire area. Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: For small spills, flush spill area with water. Keep wash water out of drains, sewers, ditches and waterways. For large spills, absorb in sand or absorbent material. Dig up contaminated soil. Collect in containers for disposal. Flush residues with small quantities of water. Minimize use of water to prevent environmental runoff. Dispose of in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Good industrial practice in housekeeping and personal hygiene should be followed. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. Wash hands thoroughly after handling or contact with the product. Thoroughly clean equipment after use. Emptied containers retain vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Follow labeled warnings even after container is empty.

PRECAUTIONS TO BE TAKEN IN STORAGE: DO NOT contaminate water, foodstuffs, feed or seed by storage or disposal. Keep container closed to prevent spills and contamination. Store product in original container only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT (PPE) ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

INGESTION PROTECTION: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material.

EYE PROTECTION: Wear chemical goggles or full-face shield.

HAND PROTECTION: Chemical-resistant gloves made of any waterproof material.

SKIN PROTECTION: Long-sleeved shirt, long pants, shoes plus socks.

ADDITIONAL PROTECTIVE MEASURES: 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.

USER SAFETY RECOMMENDATIONS:

Users should:

- 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.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Use adequate ventilation to minimize airborne concentrations of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber brown liquid

ODOR: Slight

FLASH POINT: Does not flash.

pH: 4.4 – 5.0

BOILING POINT: 150°C @ 760 mmHg

SPECIFIC GRAVITY/DENSITY: 1.1655 g/mL @ 20°C/15.6° C

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS TO AVOID: None known.

MATERIALS TO AVOID: Reacts with bases to liberate heat. Reacts with galvanized steel or unlined mild steel to product hydrogen, a highly flammable gas that could explode.

HAZARDOUS POLYMERIZATION: Not known to occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide (CO), nitrogen oxides (NO_x), phosphorous oxides (P_xO_y)

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD ₅₀ (Rat):	>5,000 mg/kg
Acute Dermal LD ₅₀ (Rat):	>5,000 mg/kg
Acute Inhalation LC ₅₀ (Rat):	>2.6 mg/L air (4-hr.)
Eye Irritation (Rabbit):	Moderate irritation
Dermal Irritation (Rabbit):	No irritation
Dermal Sensitization (Guinea Pig):	Not a skin sensitizer

REPRODUCTIVE/FERTILITY EFFECTS

None observed.

CARCINOGENICITY

None observed.

DEVELOPMENTAL TOXICITY/TERATOGENICITY

None observed.

12. ECOLOGICAL INFORMATION

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 of equipment or disposing of equipment washwaters.

SUMMARY OF EFFECTS: Moderately toxic to fish and algae/aquatic plants. Slightly toxic to invertebrates. Practically non-toxic to birds and bees.

ECO-ACUTE TOXICITY:

MATERIAL SAFETY DATA SHEET

Quali-Pro® Glyphosate T&O

Page 4 of 4

Rainbow Trout 96-hour LC50: 8.2 mg/L
Bluegill Sunfish 96-hour LC50: 5.8 mg/L
Daphnia magna 48-hour EC50: 12.9 mg/L
Green algae 96-hour EC50: 2.6 mg/L
Bobwhite Quail LC50: >5,620 mg/kg
Mallard Duck LC50: >5,620 mg/kg
Honey Bee LD50: >100 µg/bee

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: Wastes that result from using this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal, or in accordance with all applicable Federal, state, or local procedures. Empty containers retain vapor and product residues. Follow all labeled safeguards until container is cleaned, reconditioned, or destroyed.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not regulated

INTERNATIONAL TRANSPORTATION

IMO (vessel): Not regulated

IATA (air): Not regulated

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable
Section 311/312: Acute health hazard (immediate)
Section 313: Not applicable

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable

RCRA CLASSIFICATION: Not applicable

TSCA STATUS: Not applicable

16. OTHER INFORMATION

NFPA HAZARD RATINGS	NFPA	
HEALTH:	1	0 MINIMAL
FLAMMABILITY:	0	1 SLIGHT
REACTIVITY:	0	2 MODERATE
		3 HIGH
		4 SEVERE

MSDS DATE: 6-16-10.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.