



# SAFETY DATA SHEET

## Quali-Pro 3-D

### SECTION 1: IDENTIFICATION

**Product Name:** Quali-Pro 3-D  
**EPA Registration No.:** 66222-225  
**Recommended Use:** Herbicide; See product label for a complete list of uses and use sites.  
**Restrictions on Use:** See product label for any restrictions on the use of this product.  
**Chemical Family:** N/A – Multiple active ingredients  
**Chemical Name of Active Ingredient(s):** Dimethylamine Salt of 2,4-Dichloro-phenoxyacetic acid  
 Dimethylamine Salt of (+)-R-2-(2-methyl-4-chlorophenoxy) propionic acid  
 Dimethylamine Salt of Dicamba (3,6-dichloro-o-anisic acid)  
**Manufactured for:** Makhteshim Agan of North America, Inc.  
 3120 Highwoods Boulevard, Suite 100  
 Raleigh, NC 27604

**FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300**  
**FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050**

### SECTION 2: HAZARD(S) IDENTIFICATION

**EMERGENCY OVERVIEW:** Clear amber liquid with a typical phenoxy herbicide odor. Causes serious eye irritation and skin irritation.

#### OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Oral Toxicity	Category 4
Eye Damage/Irritation	Category 1
Skin sensitization	Category 1

**Signal Word:** DANGER



**Hazard Statement(s):** Harmful if swallowed.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.

#### Precautionary Statement(s):

**Prevention:** Wash hands thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Wear protective gloves/eye protection/face protection.  
 Avoid breathing mist/vapors/spray.  
 Contaminated work clothing must not be allowed out of the workplace.

**Response:** **IF SWALLOWED:** Immediately call a poison control center/doctor if you feel unwell. Specific treatment (see Section 4 for first aid). Rinse mouth.  
**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.  
**IF ON SKIN:** Wash with plenty of water. Specific treatment (see Section 4 for first aid). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Storage:** No statement required. See section 7 for storage information.

**Disposal:** Dispose of contents/container in accordance with Federal, state and local laws and regulations.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS Number	Weight %
Dimethylamine Salt of 2,4-Dichloro-phenoxyacetic acid	2008-39-1	30.56%
Dimethylamine Salt of (+)-R-2-(2-methyl-4-chlorophenoxy) propionic acid	66423-09-4	8.17%
Dimethylamine Salt of Dicamba (3,6-dichloro-o-anisic acid)	2300-66-5	2.77%

\*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

**SECTION 4: FIRST AID MEASURES**

<b>IF IN EYES:</b>	Hold eye open and rinse slowly and gently with water for 15 to 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.
<b>IF ON SKIN:</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
<b>IF INHALED:</b>	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. Call a poison control center or doctor for further treatment advice.
<b>IF INGESTED:</b>	Call a poison control center 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 center or doctor. Do not give anything by mouth to an unconscious person.

**Most important symptoms/effects, acute and delayed:** Serious eye irritation, allergic skin reaction and gastrointestinal irritation.

**NOTE TO PHYSICIAN:**

If in eyes, specialized ophthalmologic attention may be necessary. If swallowed, probable mucosal damage may contraindicate the use of gastric lavage. There is no specific antidote; treat symptomatically.

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media:</b>	Foam, dry chemical, carbon dioxide or water spray
<b>Unsuitable Extinguishing Media:</b>	Water jet
<b>Hazardous Combustion Products:</b>	Thermal decomposition may produce hazardous Carbon and Nitrogen oxides, Ammonia, Chlorine compounds, and Hydrogen chloride
<b>Special Protective Equipment &amp; Precautions:</b>	Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).
<b>Unusual Fire &amp; Explosion Hazards:</b>	None known

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** See Section 8 for personal protection equipment.

**Environmental Precautions:** Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.

**Methods for Containment:** Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. 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.

**Methods for Clean-up:** Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.

**Other Information:** None known

**SECTION 7: HANDLING AND STORAGE**

**Handling:** RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.

**Storage:** See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.

**Storage Temperature (Min/Max):** Store above 32°F

**Product Incompatibilities:** Strong acids and oxidizing materials.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

**Exposure Guidelines:**

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
Dimethylamine	TWA: 10 ppm TWA: 18 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 18 mg/m <sup>3</sup>	STEL: 15 ppm TWA: 5 ppm	IDLH: 500 ppm TWA: 10 ppm TWA: 18 mg/m <sup>3</sup>
2,4-D Acid	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> (inhalable, skin)	

- Engineering Controls:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.
- Respiratory Protection:** In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.
- Eye Protection:** Chemical goggles or safety glasses and full-face shield.
- Protective Gloves:** Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
- Other Protective Clothing:** Long-sleeved shirt, long pants and chemical resistant footwear plus socks.
- General Safety Measures:** Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and 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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Clear amber liquid	<b>Upper/Lower Flammability Limits:</b>	Not determined
<b>Odor:</b>	Phenoxy herbicide	<b>Vapor Pressure:</b>	0.021 mmHg
<b>Odor Threshold:</b>	Not determined	<b>Vapor Density:</b>	Not determined
<b>pH (neat):</b>	8.5 – 9.0	<b>Relative Density (@24°C):</b>	1.13 (typical)
<b>Melting /Freezing Point:</b>	Not determined	<b>Solubility:</b>	Miscible in water
<b>Boiling Point/Range:</b>	212°F (100°C)	<b>Partition Coefficient:</b>	Not determined
<b>Flash Point:</b>	Does not flash	<b>Auto-ignition Temperature:</b>	Not determined
<b>Evaporation Rate:</b>	Not determined	<b>Decomposition Temperature:</b>	Not determined
<b>Flammability:</b>	Not applicable	<b>Viscosity:</b>	Not determined

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity:</b>	No hazardous chemical reactions known.
<b>Chemical Stability:</b>	Stable under normal storage and handling conditions.
<b>Possibility of Hazardous Reactions:</b>	No potential for hazardous reactions known.
<b>Conditions to Avoid:</b>	Excessive heat
<b>Incompatible Materials:</b>	Strong acids, bases and oxidizing materials.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition may produce hazardous Carbon and Nitrogen oxides, Ammonia, Chlorine compounds, and Hydrogen chloride

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Likely Routes of Exposure:</b>	Eye contact, Skin contact, Inhalation, Ingestion
<b>Symptoms of Exposure:</b>	Serious eye irritation (eye contact), allergic skin reaction (skin contact), gastrointestinal irritation, nausea, vomiting, abdominal pain, decreased blood pressure, decreased blood pressure, muscle weakness, and muscle spasms (ingestion).

**Oral LD<sub>50</sub>:** 1,697 mg/kg (rat); based upon a similar product  
**Dermal LD<sub>50</sub>:** >5,000 mg/kg (rat); based upon a similar product  
**Inhalation LC<sub>50</sub>:** >2.14 mg/L (4-hour)(rat); no mortalities at highest dose tested; based upon a similar product  
**Eye Irritation/Damage:** Corrosive (Rabbit); based upon a similar product  
**Skin Corrosion/Irritation:** Slightly irritating (Rabbit); based upon a similar product  
**Skin Sensitization:** Not a skin sensitizer (Guinea Pig); based upon a similar product

**Chronic/Subchronic Toxicity:** Repeated overexposure to phenoxy herbicides may cause effects to liver, kidneys, and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods. Repeated overexposure to dicamba may cause liver changes or a decrease in body weight.

**Mutagenicity:** None known

**Reproductive Toxicity:** None known

**Neurotoxicity:** None known

**Target Organs:** Liver, kidneys and gross motor function.

**Aspiration Hazard:** Not anticipated to be an aspiration hazard.

**Carcinogenicity:** The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, the more current 2,4-D lifetime feeding studies in rats and mice, as well as an MCPP lifetime feeding study in rats, did not show carcinogenic potential. Dicamba did not cause cancer in long-term animal studies. The U.S. EPA has given 2,4-D and dicamba a Class D classification (not classifiable as to human carcinogenicity).

Chemical Name	ACGIH	IARC	NTP	OSHA
Exposure to chlorophenoxy herbicides		2B		

**SECTION 12: ECOLOGICAL INFORMATION**

**Environmental Hazards Statement from FIFRA Regulated Pesticide Label:**

This product is toxic to fish and aquatic invertebrates and may adversely affect nontarget plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**ECOTOXICITY DATA:**

**Fish Toxicity:** 2,4-D Dimethylamine salt:  
 Bluegill 96 hr LC<sub>50</sub> = 524 mg/L; Rainbow trout 96 hr LC<sub>50</sub> = 250 mg/L  
 Mecoprop-p Dimethylamine salt:  
 Bluegill 96 hr LC<sub>50</sub> = 112 mg/L; Rainbow trout 96 hr LC<sub>50</sub> = 111 mg/L

	Dicamba acid: Bluegill 96 hr LC <sub>50</sub> = 135 mg/L; Rainbow trout 96 hr LC <sub>50</sub> = 135 mg/L
<b>Aquatic Invertebrate Toxicity:</b>	2,4-D Dimethylamine salt: Daphnia 48 hr EC <sub>50</sub> = 184 mg/L Mecoprop-p Dimethylamine salt: Daphnia 48 hr EC <sub>50</sub> = 256 mg/L
<b>Aquatic Plant Toxicity:</b>	Dicamba acid: Daphnia 48 hr EC <sub>50</sub> = 110 mg/L Mecoprop-p Dimethylamine salt: Green algae 72 hr EC <sub>50</sub> = 100 mg/L
<b>Avian Toxicity:</b>	2,4-D Dimethylamine salt: Bobwhite Quail oral LD <sub>50</sub> = 500 mg/L; Mallard Duck 8-Day Dietary LC <sub>50</sub> >5,620 mg/L Mecoprop-p Dimethylamine salt: Bobwhite Quail oral LD <sub>50</sub> >5,600 mg/L Mallard Duck 8-Day Dietary LC <sub>50</sub> = 625 mg/L Dicamba acid: Bobwhite Quail 8-Day Dietary LC <sub>50</sub> >10,000 mg/L Mallard Duck 8-Day Dietary LC <sub>50</sub> >10,000 mg/L
<b>Honeybee Toxicity:</b>	No data available

**ENVIRONMENTAL EFFECTS:**

<b>Persistence and Degradability:</b>	No data available
<b>Bioaccumulation:</b>	No data available
<b>Mobility:</b>	No data available
<b>Other Adverse Effects:</b>	No data available

**SECTION 13: DISPOSAL CONSIDERATIONS**

<b>Waste Disposal:</b>	<b>Refer to the pesticide label for full information on disposal.</b> Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.
<b>Container Disposal:</b>	<b>Refer to the pesticide label for full information on disposal.</b> When possible, triple rinse the container and offer for recycling if available.
<b>RCRA Characteristics:</b>	It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

**SECTION 14: TRANSPORTATION INFORMATION**

**DOT (Ground):** Packages less than 35 gallons are not regulated. For packages greater than or equal to 35 gallons:  
UN3082, Environmentally hazardous substances, liquid, n.o.s (2,4-dichlorophenoxyacetic acid), 9, PG III

**IMDG (Sea):** Not regulated

**IATA (Air):** Not regulated

**SECTION 15: REGULATORY INFORMATION**

**Labeling Requirements Under 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. Following is the hazard information as required on the pesticide label:

**DANGER**  
Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get into eyes, on skin, or on clothing.

**TSCA Inventory:** This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

**SARA Title III Information:**

**Section 302 – Extremely hazardous substances:** None  
**Section 311/312 – Hazard Categories:** Acute (Immediate); Delayed (Chronic)  
**Section 313 –** This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
2,4-D Acid	94-75-7	25.38%
Dicamba	1918-00-9	2.30%

**CERCLA –** This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
2,4-D Salts & Esters	2008-39-1	100 lbs	35 gallons
Dicamba	1918-00-9	1,000 lbs	4608 gallons

**CALIFORNIA PROPOSITION 65:**

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

**U.S. STATE RIGHT-TO-KNOW REGULATIONS:**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2,4-D	X		X
Dicamba	X		X

**SECTION 16: OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards 2</b>	<b>Flammability 1</b>	<b>Instability 0</b>	<b>Special Hazards – None</b>
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