



SAFETY DATA SHEET
Quali-Pro Todal

SECTION 1: IDENTIFICATION

Product Name: Quali-Pro Todal
EPA Registration No.: 53883-410
Recommended Use: Insecticide; 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: Avermectin
Chemical Name of Active Ingredient(s): Abamectin
Manufactured for: Control Solutions, Inc.
 5903 Genoa-Red Bluff
 Pasadena, TX 77507

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 yellow liquid with a faint, sweet abamectin odor. Causes serious eye irritation. May be fatal if swallowed.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Oral Toxicity	Category 3
Eye Damage/Irritation	Category 2A
Acute Inhalation Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Reproductive Toxicity	Category 1B
Carcinogenicity	Category 1B
Specific Target Organ Toxicity – Single Exposure	Category 3
Specific Target Organ Toxicity – Repeated Exposure	Category 1

Signal Word: DANGER



Hazard Statement(s): Toxic if swallowed.
 Causes serious eye irritation.
 Harmful if inhaled.
 Causes skin irritation.
 May damage fertility or the unborn child.
 May cause respiratory irritation.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention: Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not breathe mist/vapors/spray.
 Use only outdoors or in a well ventilated area.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

- 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
IF ON SKIN: Wash with plenty of water. Specific treatment (see Section 4 for first aid). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
IF EXPOSED OR CONCERNED: Get medical advice/attention.
- Storage:** Store locked up. Store in a well-ventilated place. Keep container tightly closed.
- 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 %
N-methyl-2-pyrrolidone	872-50-4	19.0 – 25.0%
Hexyl alcohol	111-27-3	9.0 – 12.0%
2-ethylhexanol	104-76-7	9.0 – 12.0%
Abamectin	71751-41-2	1.9%
Butylated Hydroxytoluene	128-37-0	0.5 – 2.0%

*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

IF IN EYES:	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.
IF ON SKIN:	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.
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. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	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, respiratory irritation, tremors.

NOTE TO PHYSICIAN:

- Early signs of intoxication include mydriasis (dilated pupils), ataxia (unsteadiness), and muscle tremors. Toxicity follows accidental ingestion of Quali-Pro Abamectin 0.15 EC and can be minimized by promptly administering activated charcoal.

- If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given along with other required supportive measures (such as maintenance of blood pressure levels and respiratory functionality) as indicated by clinical signs, symptoms, and measurements.
- In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Foam, dry chemical, carbon dioxide or water spray
Unsuitable Extinguishing Media:	Water jet
Hazardous Combustion Products:	Thermal decomposition may produce hazardous carbon and nitrogen oxides.
Special Protective Equipment & Precautions:	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).
Unusual Fire & Explosion Hazards:	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 and eliminate sources of heat, sparks or flames. Absorb small spills with sand, vermiculite or other inert absorbent. Avoid use of combustible materials such as sawdust and cloth rags. 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): Not determined

Product Incompatibilities: Strong acids, strong bases 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
Butylated hydroxytoluene	(vacated) TWA: 10 mg/m ³	TWA: 2 mg/ m ³ Inhalable fraction & vapor	TWA: 10 mg/m ³
N-methyl-2-pyrrolidone		Biological Exposure Indices (BEI): Urine (100 mg/L)*	

*Parameters: 5-hydroxy-N-methyl-2-pyrrolidone; end of shift (as soon as possible after exposure ceases).

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

Appearance:	Clear yellow liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	Faint abamectin	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH (1% dispersion):	5.0 – 5.5	Relative Density (@24°C):	0.984 (typical)
Melting /Freezing Point:	Not determined	Solubility:	Miscible in water
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	>230°F (>110°C)	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	32 cps @ 20°C

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous chemical reactions known.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	None known
Incompatible Materials:	Strong acids, strong bases and oxidizing materials.
Hazardous Decomposition Products:	Thermal decomposition may produce hazardous carbon and nitrogen oxides and hazardous organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Serious eye irritation (eye contact), tremors and gastrointestinal irritation (ingestion), tremors and respiratory irritation (inhalation).
Oral LD₅₀:	271 - 422 mg/kg (rat)
Dermal LD₅₀:	>2,000 mg/kg (rat)
Inhalation LC₅₀:	>2.13 mg/L (4-hour)(rat)
Eye Irritation/Damage:	Causes serious irritation clearing before 21 days. (Rabbit)
Skin Corrosion/Irritation:	Not anticipated to causes skin irritation. (Rabbit)
Skin Sensitization:	Not a skin sensitizer. (Guinea Pig)
Chronic/Subchronic Toxicity:	N-methyl-2-pyrrolidone can cause vomiting, diarrhea and abdominal pain after prolonged or repeated exposure. Rats exposed to 1-methyl-2-pyrrolidone at a concentration of 1 mg/L as an aerosol for 10 days showed depletion of hematopoietic cells in the bone marrow and atrophy of the lymphoid tissues of the thymus, spleen and lymph nodes.
Mutagenicity:	None known
Reproductive Toxicity:	N-methyl-2-pyrrolidone is considered a developmental toxicant. Abamectin is considered a developmental toxicant.
Neurotoxicity:	None known
Target Organs:	Respiratory tract; Hexyl alcohol can cause stomach irregularities based on human evidence.
Aspiration Hazard:	Not anticipated to be an aspiration hazard.

Carcinogenicity: None known

Chemical Name	ACGIH	IARC	NTP	OSHA
Butylated hydroxytoluene		Group 3		

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This pesticide is toxic to fish and wildlife. 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 disposing of equipment washwater or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including freshwater shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several weeks to months after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water such as ponds, streams, and springs will reduce the potential loading of abamectin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

ECOTOXICITY DATA:

Fish Toxicity: No data available
Aquatic Invertebrate Toxicity: No data available
Aquatic Plant Toxicity: No data available
Avian Toxicity: No data available
Honeybee Toxicity: No data available

ENVIRONMENTAL EFFECTS:

Persistence and Degradability: No data available
Bioaccumulation: No data available
Mobility: No data available
Other Adverse Effects: No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Refer to the pesticide label for full information on disposal. 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.

Container Disposal: Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

RCRA Characteristics: 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): UN2902, Pesticides, liquid, toxic, n.o.s. (abamectin), 6.1, PGIII

IMDG (Sea): UN2902, Pesticides, liquid, toxic, n.o.s. (abamectin), 6.1, PGIII

IATA (Air): UN2902, Pesticides, liquid, toxic, n.o.s. (abamectin), 6.1, PGIII

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:

WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes. Harmful if absorbed through skin or inhaled. Avoid contact with skin or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

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 %	SARA 313 – Threshold Values (lbs)
N-methyl-2-pyrrolidone	872-50-4	19.0 – 25.0%	10,000
Abamectin	71751-41-2	1.9%	10,000

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
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
Abamectin	71751-41-2	Developmental
N-methyl-2-pyrrolidone	872-50-4	Developmental

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Abamectin	X		
N-methyl-2-pyrrolidone	X	X	X
Hexyl alcohol	X		X
2-ethylhexanol		X	X
Butylated Hydroxytoluene	X	X	X

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards – None
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Disclaimer: Control Solutions, Inc. believes the information presented herein is accurate and correct as of the document date. The presented information is based upon available data from reliable sources. Control Solutions, Inc. 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. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

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