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Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Advantage Prothio + Teb 250 EC

### Other means of identification

**Product Code(s)** PMRA Reg. No.: 34975

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Fungicide

**Restrictions on use** Use only as directed on product label

### Details of the supplier of the safety data sheet

#### Supplier Address

Advantage Crop Protection Inc.  
620 4th Avenue East  
Regina, Saskatchewan, Canada  
Phone: 1888 931 2530

### Emergency telephone number

**Emergency telephone** Canutec: 1613 996 6666

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3

### Label elements

#### **Danger**

#### **Hazard statements**

Harmful if swallowed  
Harmful if inhaled  
Causes skin irritation

Causes serious eye irritation  
 May damage fertility or the unborn child  
 May cause respiratory irritation



**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves, protective clothing, eye protection and face protection  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Avoid breathing vapors or mists  
 Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Eyes**

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 and attention

**Skin**

IF ON SKIN: Wash with plenty of water and soap  
 If skin irritation occurs: Get medical advice and attention  
 Take off contaminated clothing and wash it before reuse

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing

**Ingestion**

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents and container to an approved waste disposal plant

**Other information**

Very toxic to aquatic life with long lasting effects.

**Unknown acute toxicity**

50 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**3. Composition/information on ingredients**

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number	Date HMIRA filed and date exemption granted (if applicable)

			(HMIRA registry #)	
Decanamide, N,N-dimethyl-	14433-76-2	30 - 40	-	
1-Methyl-2-pyrrolidone	872-50-4	20 - 30	-	
Castor oil, ethoxylated	61791-12-6	10 - 20	-	
Tebuconazole	107534-96-3	10 - 20	-	
Prothioconazole	178928-70-6	10 - 20	-	
Oxirane, methyl-, polymer with oxirane, monobutyl ether	9038-95-3	5 - 10	-	

#### 4. First-aid measures

##### Description of first aid measures

- General advice** Show this safety data sheet to the doctor in attendance.
- Inhalation** Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.
- Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
- Skin contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
- Ingestion** Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
- Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.

##### Most important symptoms and effects, both acute and delayed

- Symptoms** May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.
- Effects of Exposure** See Section 11 for additional Toxicological Information.

##### Indication of any immediate medical attention and special treatment needed

- Note to physicians** Treat symptomatically.

#### 5. Fire-fighting measures

- Suitable Extinguishing Media** Foam, Dry chemical or CO2.
- Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.
- Specific hazards arising from the chemical** May emit toxic fumes under fire conditions.
- Hazardous combustion products** Carbon oxides, Nitrogen oxides (NOx).

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

**7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store in accordance with the particular national regulations. Store in accordance with local regulations.

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

Chemical name	Alberta	British Columbia	Ontario	Quebec
1-Methyl-2-pyrrolidone 872-50-4	-	-	TWA: 400 mg/m <sup>3</sup>	-

Chemical name	Nunavut	Prince Edward Island	Saskatchewan	Yukon
1-Methyl-2-pyrrolidone				TWA: 100 ppm TWA: 400 mg/m <sup>3</sup> STEL: 125 ppm STEL: 500 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls** Avoid release to the environment.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**Appearance** Light yellow liquid  
**Physical state** Liquid  
**Color** Light yellow  
**Odor** Pungent  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	5 - 8	
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	116.00 °C / 240.8 °F	
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		No data available
Relative vapor density		No data available
Relative density		No data available
Water solubility		No data available
Solubility in other solvents		No data available
Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity	53.5 - 65.2 mPa s	

**Other information**

**Explosive properties** None.  
**Oxidizing properties** No information available.  
**Softening point** No information available  
**Molecular weight** No information available  
**VOC content** No information available

**Liquid Density** 1.01 g/mL  
**Bulk density** No information available

**10. Stability and reactivity**

**Reactivity** None under normal use conditions.  
**Chemical stability** Stable under normal conditions.  
**Possibility of hazardous reactions** None under normal processing.  
**Conditions to avoid** Incompatible materials.  
**Incompatible materials** Turpentine, Strong acids, Strong oxidizing agents, Strong reducing agents.  
**Hazardous decomposition products** None known based on information supplied.

**11. Toxicological information**

Information on likely routes of exposure

**Product Information**

**Inhalation** Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).  
**Eye contact** Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.  
**Skin contact** Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).  
**Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** Redness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.  
**Acute toxicity** Harmful if swallowed. Harmful by inhalation.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document:

**ATEmix (oral)** 1,607.20 mg/kg  
**ATEmix (dermal)** > 5,000 mg/kg  
**ATEmix (inhalation-dust/mist)** 2.241 mg/l

**Unknown acute toxicity**

50 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Decanamide, N,N-dimethyl-14433-76-2	-	> 5000 mg/kg ( Rat )	> 3550.7 mg/m <sup>3</sup> ( Rat ) 4 h
1-Methyl-2-pyrrolidone	= 3914 mg/kg ( Rat )	= 8 g/kg ( Rabbit )	> 5.1 mg/L ( Rat ) 4 h

872-50-4			
Castor oil, ethoxylated 61791-12-6	-	> 2000 mg/kg ( Rat )	-
Tebuconazole 107534-96-3	= 3352 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	> 371 mg/m <sup>3</sup> ( Rat ) 4 h > 5093 mg/m <sup>3</sup> ( Rat ) 4 h
Prothioconazole 178928-70-6	> 6200 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 5 mg/L ( Rat ) 4 h
Oxirane, methyl-, polymer with oxirane, monobutyl ether 9038-95-3	= 5 g/kg ( Rat )	= 14100 µL/kg ( Rabbit )	= 147 mg/m <sup>3</sup> ( Rat ) 4 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	May damage fertility or the unborn child.
<b>STOT - single exposure</b>	May cause respiratory irritation.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**12. Ecological information**

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1-Methyl-2-pyrrolidone 872-50-4	EC50: >500mg/L (72h, <i>Desmodesmus subspicatus</i> )	LC50: =832mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =1072mg/L (96h, <i>Pimephales promelas</i> ) LC50: =1400mg/L (96h, <i>Poecilia reticulata</i> )	-	EC50: =4897mg/L (48h, <i>Daphnia magna</i> )
Castor oil, ethoxylated 61791-12-6	-	LC50: >45mg/L (96h, <i>Danio rerio</i> )	-	-

**Persistence and degradability** No information available.

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1-Methyl-2-pyrrolidone 872-50-4	-0.46
Castor oil, ethoxylated 61791-12-6	4.297

**Mobility** No information available.

Other adverse effects No information available.

**13. Disposal considerations**

**Disposal methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

**14. Transport information**

**TDG** Not regulated

**IATA** Not regulated in quantities less than 5 liter per individual container. See IATA SP A197  
**UN number or ID number** UN3082  
**UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**Transport hazard class(es)** 9  
**Packing group** III  
**IATA Technical Name** Tebuconazole, Prothioconazole  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Tebuconazole, Prothioconazole), 9, III  
**Special Provisions** A97, A158, A197  
**ERG Code** 9L

**IMDG** Not regulated in quantities less than 5 liter per individual container. See IMDG 2.10.2.7  
**UN number or ID number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Transport hazard class(es)** 9  
**Packing group** III  
**IMDG Technical Name** Tebuconazole, Prothioconazole  
**Marine pollutant** P  
**Marine pollutant** Tebuconazole, Prothioconazole  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tebuconazole, Prothioconazole), 9, III, Marine pollutant  
**Special Provisions** 274, 335, 969  
**EmS-No.** F-A, S-F

**15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 2	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 2*	<b>Flammability</b> 1	<b>Physical hazards</b> 0	<b>Personal protection</b> X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

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**Disclaimer**

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**End of Safety Data Sheet**