

# SAFETY DATA SHEET



## PROSARO EC 250

Version 2.0 / CDN  
102000007908

1/11  
Revision Date: 03/01/2017  
Print Date: 04/26/2018

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

**Trade name** PROSARO EC 250  
**Product code (UVP)** 05676428, 81782423  
**SDS Number** 102000007908

#### Relevant identified uses of the substance or mixture and uses advised against

**Use** Fungicide  
**Restrictions on use** See product label for restrictions.

#### Information on supplier

**Supplier** Bayer CropScience Inc  
#200, 160 Quarry Park Blvd, SE  
Calgary, Alberta T2C 3G3  
Canada  
**Responsible Department** Email: SDSINFO.BCS-NA@bayer.com

#### Emergency telephone no.

**Emergency Telephone Number (24hr/ 7 days)** 1-800-334-7577

**Product Information Telephone Number** 1-888-283-6847

### SECTION 2: HAZARDS IDENTIFICATION

#### Classified in accordance with Part 2 of the Hazardous Products Regulations

Skin irritation: Category 2  
Eye irritation: Category 2A  
Reproductive toxicity: Category 2  
Specific target organ toxicity - single exposure: Category 3

#### Labelling in accordance with Part 3 of the Hazardous Products Regulations



**Signal word:** Warning

#### Hazard statements

Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause respiratory irritation.

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### Precautionary statements

Wash thoroughly after handling.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
Avoid breathing mist/ vapours.  
Use only outdoors or in a well-ventilated area.  
IF ON SKIN: Wash with plenty of water/ soap.  
Specific treatment (see supplemental first aid instructions on this label).  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.  
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 exposed or concerned: Get medical advice/ attention.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor/physician if you feel unwell.  
Store locked up.  
Store in a well-ventilated place. Keep container tightly closed.  
Dispose of contents/container in accordance with local regulation.

### Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.  
No health hazards not otherwise classified.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No.     | Concentration % by weight |
|--------------------------|-------------|---------------------------|
| Prothioconazole          | 178928-70-6 | 12.76                     |
| Tebuconazole             | 107534-96-3 | 12.76                     |
| N,N-Dimethyl decanamide  | 14433-76-2  | 59.38                     |

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

**General advice** When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

**Inhalation** Move 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 physician or poison control center immediately.

**Skin contact** Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.

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|---|---|
| <b>Eye contact</b>  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.                      |
| <b>Ingestion</b>  | Rinse out mouth and give water in small sips to drink. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. |
| <b>Most important symptoms and effects, both acute and delayed</b>                |   |
| <b>Symptoms</b>   | No symptoms known or expected.  |
| <b>Indication of any immediate medical attention and special treatment needed</b> |   |
| <b>Treatment</b>  | There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.   |

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## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**Special hazards arising from the substance or mixture** In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)

### Advice for firefighters

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

**Flash point** > 148 °C

**Auto-ignition temperature** No data available

**Lower explosion limit** No data available

**Upper explosion limit** No data available

**Explosivity** Not applicable

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Precautions** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

#### Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

**Additional advice** Use personal protective equipment. If material is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

**Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

### SECTION 7: HANDLING AND STORAGE

#### Precautions for safe handling

**Advice on safe handling** Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

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

**Requirements for storage areas and containers** Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Protect from freezing. Keep away from direct sunlight.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

| Components      | CAS-No.     | Control parameters                | Update | Basis    |
|-----------------|-------------|-----------------------------------|--------|----------|
| Prothioconazole | 178928-70-6 | 1.4 mg/m <sup>3</sup><br>(SK-ABS) |        | OES BCS* |
| Tebuconazole    | 107534-96-3 | 0.2 mg/m <sup>3</sup>             |        | OES BCS* |

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|  |  |          |  |  |
|--|--|----------|--|--|
|  |  | (SK-ABS) |  |  |
|--|--|----------|--|--|

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

### Exposure controls

#### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**Hand protection** Chemical resistant nitrile rubber gloves

**Eye protection** Chemical resistant goggles must be worn.

**Skin and body protection** Wear long-sleeved shirt and long pants and shoes plus socks.

**General protective measures** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.  
Keep and wash PPE separately from other laundry.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |  |
|---|--|
| <b>Appearance</b>                             | tan  |
| <b>Physical State</b>                         | Liquid clear to slightly turbid            |
| <b>Odor</b>                                   | aromatic                                   |
| <b>Odour Threshold</b>                        | No data available                          |
| <b>pH</b>                                     | 5.0 - 7.0 at 1 % (23 °C) (deionized water) |
| <b>Vapor Pressure</b>                         | No data available                          |
| <b>Vapor Density (Air = 1)</b>                | No data available                          |
| <b>Density</b>                                | ca. 0.98 g/cm <sup>3</sup> at 20 °C        |
| <b>Evaporation rate</b>                       | No data available                          |
| <b>Boiling Point</b>                          | No data available                          |
| <b>Melting / Freezing Point</b>               | No data available                          |
| <b>Water solubility</b>                       | emulsifiable                               |
| <b>Minimum Ignition Energy</b>                | Not applicable                             |
| <b>Decomposition temperature</b>              | No data available                          |
| <b>Partition coefficient: n-octanol/water</b> | No data available                          |
| <b>Viscosity</b>                              | 49.9 mPa.s at 20 °C                        |

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|                                  |  |
|----------------------------------|--|
| <b>Flash point</b>               | > 148 °C   |
| <b>Auto-ignition temperature</b> | No data available  |
| <b>Lower explosion limit</b>     | No data available  |
| <b>Upper explosion limit</b>     | No data available  |
| <b>Explosivity</b>               | Not applicable   |
| <b>Other information</b>         | Further safety related physical-chemical data are not known. |

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### SECTION 10: STABILITY AND REACTIVITY

#### Reactivity

|   |  |
|---|--|
| <b>Thermal decomposition</b>              | No data available  |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.   |
| <b>Possibility of hazardous reactions</b> | No hazardous reactions when stored and handled according to prescribed instructions. |
| <b>Conditions to avoid</b>                | Extremes of temperature and direct sunlight.   |
| <b>Incompatible materials</b>             | No data available  |
| <b>Hazardous decomposition products</b>   | No decomposition products expected under normal conditions of use.                   |

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### SECTION 11: TOXICOLOGICAL INFORMATION

|   |  |
|---|--|
| <b>Exposure routes</b>                      | Eye contact, Inhalation, Skin Absorption, Ingestion                                |
| <b>Immediate Effects</b>                    |  |
| <b>Eye</b>                                  | Moderate eye irritation may occur.   |
| <b>Skin</b>                                 | Harmful if absorbed through skin. May cause irritation.                            |
| <b>Ingestion</b>                            | Harmful if swallowed.  |
| <b>Inhalation</b>                           | Harmful if inhaled.  |
| <b>Information on toxicological effects</b> |  |
| <b>Acute oral toxicity</b>                  | LD50 (Rat) > 2,500 mg/kg   |
| <b>Acute inhalation toxicity</b>            | LC50 (Rat) > 5.153 mg/l<br>Exposure time: 4 h<br>Irritating to respiratory system. |
| <b>Acute dermal toxicity</b>                | LD50 (Rat) > 4,000 mg/kg   |
| <b>Skin irritation</b>                      | Irritating to skin. (Rabbit)   |
| <b>Eye irritation</b>                       | Irritating to eyes. (Rabbit)   |

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**Sensitisation** Non-sensitizing. (Guinea pig)  
OECD Test Guideline 406

### Assessment STOT Specific target organ toxicity – repeated exposure

Prothioconazole did not cause specific target organ toxicity in experimental animal studies.  
Tebuconazole did not cause specific target organ toxicity in experimental animal studies.  
N,N-Dimethyldecanamide did not cause specific target organ toxicity in experimental animal studies.

### Assessment mutagenicity

Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.  
Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
N,N-Dimethyldecanamide was not genotoxic in a battery of in vitro tests.

### Assessment carcinogenicity

Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice.  
Tebuconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.  
N,N-Dimethyldecanamide is not considered carcinogenic.

### ACGIH

None.

### NTP

None.

### IARC

None.

### OSHA

None.

### Assessment toxicity to reproduction

Prothioconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Prothioconazole is related to parental toxicity.

Tebuconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Tebuconazole is related to parental toxicity.

N,N-Dimethyldecanamide is not considered a reproductive toxicant at non-maternally toxic dose levels.

### Assessment developmental toxicity

Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity.

Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.

N,N-Dimethyldecanamide did not cause developmental toxicity in rats and rabbits.

### Further information

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Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).

### SECTION 12: ECOLOGICAL INFORMATION

|  |   |
|--|---|
| <b>Toxicity to fish</b>                          | LC50 (Oncorhynchus mykiss (rainbow trout)) 3.94 mg/l<br>Exposure time: 96 h   |
| <b>Toxicity to aquatic invertebrates</b>         | EC50 (Daphnia magna (Water flea)) 8.8 mg/l<br>Exposure time: 48 h   |
| <b>Chronic toxicity to aquatic invertebrates</b> | NOEC (Daphnia (water flea)): 0.010 mg/l<br>Exposure time: 21 d<br>The value mentioned relates to the active ingredient tebuconazole.  |
| <b>Toxicity to aquatic plants</b>                | IC50 (Raphidocelis subcapitata (freshwater green alga)) 9.5 mg/l<br>Growth rate; Exposure time: 72 h<br><br>EC50 (Skeletonema costatum) 0.046 mg/l<br>Growth rate; Exposure time: 72 h<br>The value mentioned relates to the active ingredient prothioconazole.<br><br>NOEC (Skeletonema costatum) 0.0073 mg/l<br>Growth rate; Exposure time: 72 h<br>The value mentioned relates to the active ingredient prothioconazole. |
| <b>Biodegradability</b>                          | Prothioconazole:<br>Not rapidly biodegradable<br>Tebuconazole:<br>Not rapidly biodegradable<br>N,N-Dimethyldecanamide:<br>rapidly biodegradable   |
| <b>Koc</b>                                       | Prothioconazole: Koc: 1765<br>Tebuconazole: Koc: 769  |
| <b>Bioaccumulation</b>                           | Prothioconazole: Bioconcentration factor (BCF) 19<br>Does not bioaccumulate.<br>Tebuconazole: Bioconcentration factor (BCF) 35 - 59<br>Does not bioaccumulate.<br>N,N-Dimethyldecanamide:<br>Does not bioaccumulate.  |
| <b>Mobility in soil</b>                          | Prothioconazole: Slightly mobile in soils<br>Tebuconazole: Slightly mobile in soils<br>N,N-Dimethyldecanamide: Slightly mobile in soils   |
| <b>Additional ecological information</b>         | No other effects to be mentioned.   |
| <b>Environmental precautions</b>                 | Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.<br>Do not contaminate surface or ground water by cleaning equipment or   |



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disposal of wastes, including equipment wash water.  
Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.  
Do not apply when weather conditions favor runoff or drift.  
Apply this product as specified on the label.

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### Waste treatment methods

##### Product

Do not contaminate water, food, or feed by disposal.  
Dispose in accordance with all local, state/provincial and federal regulations.  
It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

##### Contaminated packaging

Do not re-use empty containers.  
Triple rinse containers.  
Add washings to sprayer at time of filling.  
Puncture container to avoid re-use.  
Consult state and local regulations regarding the proper disposal of container.  
Follow advice on product label and/or leaflet.

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### SECTION 14: TRANSPORT INFORMATION

#### TDG

|                      |  |
|----------------------|--|
| UN number            | <b>3082</b>  |
| Labels               | 9  |
| Packaging group      | III  |
| Marine pollutant     | Marine pollutant   |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.<br>(TEBUCONAZOLE, PROTHIOCONAZOLE) |

#### 49CFR

Not dangerous goods / not hazardous material

#### IMDG

|                      |   |
|----------------------|---|
| UN number            | <b>3082</b>   |
| Class                | 9   |
| Packaging group      | III   |
| Marine pollutant     | YES   |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.<br>(TEBUCONAZOLE, PROTHIOCONAZOLE SOLUTION) |

#### IATA

|           |             |
|-----------|-------------|
| UN number | <b>3082</b> |
|-----------|-------------|

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|                          |   |
|--------------------------|---|
| Class                    | 9   |
| Packaging group          | III   |
| Environm. Hazardous Mark | YES   |
| Proper shipping name     | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S.<br>(TEBUCONAZOLE, PROTHIOCONAZOLE SOLUTION ) |

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

|                     |  |
|---------------------|--|
| Further Information | Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1.<br>This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail. |
|---------------------|--|

## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

#### TSCA list

None.

#### US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

#### SARA Title III - Section 302 - Notification and Information

None.

#### SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

#### US States Regulatory Reporting

##### CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

#### US State Right-To-Know Ingredients

None.

### Canadian Regulations

#### Canadian Domestic Substance List

None.

### Environmental

#### CERCLA

None.

#### Clean Water Section 307 Priority Pollutants

None.

#### Safe Drinking Water Act Maximum Contaminant Levels

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Tebuconazole

107534-96-3

### SECTION 16: OTHER INFORMATION

#### Abbreviations and acronyms

|         |   |
|---------|---|
| TWA     | Time weighted average   |
| NTP     | US. National Toxicology Program (NTP) Report on Carcinogens           |
| ACGIH   | US. ACGIH Threshold Limit Values                                      |
| ATE     | Acute toxicity estimate   |
| WHO     | World health organisation   |
| IATA    | International Air Transport Association                               |
| IMDG    | International Maritime Dangerous Goods                                |
| CAS-Nr. | Chemical Abstracts Service number                                     |
| EINECS  | European inventory of existing commercial substances                  |
| ELINCS  | European list of notified chemical substances                         |
| TDG     | Transportation of Dangerous Goods                                     |
| N.O.S.  | Not otherwise specified   |
| 49CFR   | Code of Federal Regulations, Title 49                                 |
| OECD    | Organization for Economic Co-operation and Development                |
| UN      | United Nations  |
| CERCLA  | Comprehensive Environmental Response, Compensation, and Liability Act |
| IARC    | International Agency for Research on Cancer                           |

#### NFPA 704 (National Fire Protection Association):

Health - 2      Flammability - 1      Instability - 0      Others - none

#### HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2      Flammability - 1      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

**Reason for Revision:** Revised according to the current Canadian WHMIS standard (WHMIS 2015).

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

**Revision Date:** 03/01/2017

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