

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

1/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

---

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

#### Product identifier

**Trade name** REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

**Product code (UVP)** 05947073

**SDS Number** 102000003216

**PCP Registration No.** 27462

#### 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

Eye irritation: Category 2B

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

**Signal word:** Warning

#### Hazard statements

Causes eye irritation.

#### Precautionary statements

Wash face, hands and any exposed skin thoroughly after handling.  
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.

#### Hazards Not Otherwise Classified (HNOC)

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

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

2/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

---

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No.     | Concentration % by weight |
|--------------------------|-------------|---------------------------|
| Fenamidone               | 161326-34-7 | 44.4                      |

---

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

|                       |   |
|-----------------------|---|
| <b>General advice</b> | When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.  |
| <b>Inhalation</b>     | 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.  |
| <b>Skin contact</b>   | Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.   |
| <b>Eye contact</b>    | Hold eye open and rinse slowly and gently with water for 15-20 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>      | Call a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Rinse out mouth and give water in small sips to drink. Never give anything by mouth to an unconscious person. Do not leave victim unattended. |

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

**Symptoms** To date no symptoms are known.

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

**Treatment** There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

---

### SECTION 5: FIREFIGHTING MEASURES

#### Extinguishing media

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

**Unsuitable** High volume water jet

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

3/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

---

|  |  |
|--|--|
| <b>Special hazards arising from the substance or mixture</b> | In the event of fire the following may be released:, Carbon monoxide (CO), Nitrogen oxides (NOx), Sulphur oxides   |
| <b>Advice for firefighters</b>                               |  |
| <b>Special protective equipment for firefighters</b>         | Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.   |
| <b>Further information</b>                                   | Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. |
| <b>Flash point</b>   | > 100 °C   |
| <b>Auto-ignition temperature</b>                             | 510 °C / 950 °F  |
| <b>Lower explosion limit</b>                                 | No data available  |
| <b>Upper explosion limit</b>                                 | No data available  |
| <b>Explosivity</b>   | Not explosive  |

---

### 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). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** If material is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

**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. Use only in area provided with appropriate exhaust ventilation.

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

4/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

### Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

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

#### 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         |
|---|-------------|--|---------|---------------|
| Fenamidone                              | 161326-34-7 | 1 mg/m <sup>3</sup><br>(TWA)             |         | OES BCS*      |
| 1,2-Propanediol<br>(Aerosol.)           | 57-55-6     | 10 mg/m <sup>3</sup><br>(TWAEV)          | 11 2010 | CAD ON<br>OEL |
| 1,2-Propanediol<br>(Vapor and aerosol.) | 57-55-6     | 155 mg/m <sup>3</sup> /50 ppm<br>(TWAEV) | 06 2015 | CAD ON<br>OEL |

\*OES BCS: Internal Bayer CropScience "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

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

5/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

water.  
Keep and wash PPE separately from other laundry.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |                                 |
|---|---------------------------------|
| <b>Appearance</b>                             | white to light beige            |
| <b>Physical State</b>                         | suspension                      |
| <b>Odor</b>                                   | slight                          |
| <b>Odour Threshold</b>                        | No data available               |
| <b>pH</b>                                     | 6.5 - 8.0 at 100 % (23 °C)      |
| <b>Vapor Pressure</b>                         | No data available               |
| <b>Vapor Density (Air = 1)</b>                | No data available               |
| <b>Density</b>                                | 1.13 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>                       | dispersible                     |
| <b>Minimum Ignition Energy</b>                | No data available               |
| <b>Decomposition temperature</b>              | > 500 °C                        |
| <b>Partition coefficient: n-octanol/water</b> | No data available               |
| <b>Viscosity</b>                              | 500 - 900 mPaxs                 |
| <b>Flash point</b>                            | > 100 °C                        |
| <b>Auto-ignition temperature</b>              | 510 °C / 950 °F                 |
| <b>Lower explosion limit</b>                  | No data available               |
| <b>Upper explosion limit</b>                  | No data available               |
| <b>Explosivity</b>                            | Not explosive                   |

---

### SECTION 10: STABILITY AND REACTIVITY

|                              |  |
|------------------------------|--|
| <b>Reactivity</b>            |  |
| <b>Thermal decomposition</b> | > 500 °C                                     |
| <b>Chemical stability</b>    | Stable under recommended storage conditions. |

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

6/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

---

|   |  |
|---|--|
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.        |
| <b>Conditions to avoid</b>                | freezing<br>Heat, flames and sparks.                               |
| <b>Incompatible materials</b>             | No data available  |
| <b>Hazardous decomposition products</b>   | No decomposition products expected under normal conditions of use. |

---

### SECTION 11: TOXICOLOGICAL INFORMATION

|   |  |
|---|--|
| <b>Exposure routes</b>                      | Eye contact, Skin contact, Inhalation  |
| <b>Immediate Effects</b>                    |  |
| <b>Eye</b>                                  | Causes substantial but temporary eye injury.   |
| <b>Skin</b>                                 | May cause slight irritation.   |
| <b>Inhalation</b>                           | Harmful if inhaled.  |
| <b>Information on toxicological effects</b> |  |
| <b>Acute oral toxicity</b>                  | LD50 (Rat) > 5,000 mg/kg   |
| <b>Acute inhalation toxicity</b>            | LC50 (Rat) > 0.9 mg/l<br>Exposure time: 4 h<br>Determined in the form of liquid aerosol.<br>Highest attainable concentration.<br>No deaths |
| <b>Acute dermal toxicity</b>                | LD50 (Rabbit) > 5,000 mg/kg  |
| <b>Skin irritation</b>                      | slight irritation (Rabbit)   |
| <b>Eye irritation</b>                       | Mild eye irritation. (Rabbit)  |
| <b>Sensitisation</b>                        | Non-sensitizing. (Guinea pig)  |

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

Fenamidone did not cause specific target organ toxicity in experimental animal studies.

#### Assessment mutagenicity

Fenamidone was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

#### Assessment carcinogenicity

Fenamidone was not carcinogenic in lifetime feeding studies in rats and mice.

#### ACGIH

None.

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

7/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

### NTP

None.

### IARC

None.

### OSHA

None.

### Assessment toxicity to reproduction

Fenamidone did not cause reproductive toxicity in a two-generation study in rats.

### Assessment developmental toxicity

Fenamidone did not cause developmental toxicity in rats and rabbits.

### Further information

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)) 0.74 mg/l<br>Exposure time: 96 h<br>The value mentioned relates to the active ingredient fenamidone.   |
| <b>Toxicity to aquatic invertebrates</b> | EC50 (Daphnia magna (Water flea)) 0.055 mg/l<br>static test; Exposure time: 48 h<br>The value mentioned relates to the active ingredient fenamidone.  |
| <b>Toxicity to aquatic plants</b>        | IC50 (Desmodesmus subspicatus (green algae)) 3.4 mg/l<br>Exposure time: 72 h<br>The value mentioned relates to the active ingredient fenamidone.  |
| <b>Biodegradability</b>                  | Fenamidone:<br>Not rapidly biodegradable  |
| <b>Koc</b>                               | Fenamidone: Koc: 387  |
| <b>Bioaccumulation</b>                   | Fenamidone:<br>Does not bioaccumulate.  |
| <b>Mobility in soil</b>                  | Fenamidone: Moderately mobile in soils  |
| <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>Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.<br>Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. |

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

8/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

Apply this product as specified on the label.

### SECTION 13: DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Product** Dispose in accordance with all local, state/provincial and federal regulations.  
Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.  
Follow advice on product label and/or leaflet.

**Contaminated packaging** Triple rinse containers.  
Puncture container to avoid re-use.  
Follow advice on product label and/or leaflet.

### SECTION 14: TRANSPORT INFORMATION

#### TDG

UN number **3082**  
Labels **9**  
Packaging group **III**  
Marine pollutant **Marine pollutant**  
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FENAMIDONE)**

**49CFR** Not dangerous goods / not hazardous material

#### IMDG

UN number **3082**  
Class **9**  
Packaging group **III**  
Marine pollutant **YES**  
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FENAMIDONE SOLUTION)**

#### IATA

UN number **3082**  
Class **9**  
Packaging group **III**  
Environm. Hazardous Mark **YES**  
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FENAMIDONE SOLUTION )**



# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

9/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

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. This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

---

### SECTION 15: REGULATORY INFORMATION

**PCP Registration No.** 27462

**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**

None.

# SAFETY DATA SHEET



## REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE

Version 4.0 / CDN  
102000003216

10/10  
Revision Date: 10/03/2016  
Print Date: 10/04/2016

### SECTION 16: OTHER INFORMATION

#### Abbreviations and acronyms

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

#### 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 - 1      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:** 10/03/2016

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.