



Safety Data Sheet

**REASON® 500SC FUNGICIDE SUSPENSION
CONCENTRATE**

SDS Number: 102000003216
 SDS Version 3.1
 Revision Date: 06/12/2013
 Print Date: 06/12/2013

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name REASON® 500SC FUNGICIDE SUSPENSION CONCENTRATE
SDS Number 102000003216
Product code (UVP) 05947073
PCP Registration No. 27462
Product Use Fungicide

Bayer CropScience Inc
 #200, 160 Quarry Park Blvd, SE
 Calgary, Alberta T2C 3G3
 Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-888-283-6847

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Moderate eye irritation. Avoid contact with skin, eyes and clothing. Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before re-use. Wash thoroughly with soap and water after handling.

Physical State suspension
Odor slight
Appearance white to light beige
Exposure routes Eye contact, Skin contact, Inhalation
Immediate Effects
 Eye Moderate eye irritation. Avoid contact with eyes.
 Skin May cause slight irritation. Avoid contact with skin and clothing.
 Inhalation Harmful if inhaled. Avoid breathing spray mist.
Potential Environmental Effect Toxic to aquatic organisms. Toxic to fish. Toxic to oysters and shrimp.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Hazardous Component Name</u> | <u>CAS-No.</u> | <u>Average % by Weight</u> |
|---------------------------------|----------------|----------------------------|
| Fenamidone | 161326-34-7 | 44.40 |
| 1,2-Propanediol | 57-55-6 | 2.31 |

SECTION 4. FIRST AID MEASURES

| | |
|---------------------------|---|
| General | When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. |
| Eye | 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. |
| Skin | 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. |
| Ingestion | 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. |
| 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. |
| Notes to physician | |
| Hazards | Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard. |
| Treatment | There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. |

SECTION 5. FIRE FIGHTING MEASURES

| | |
|---------------------------------|---------------------|
| Flash point | > 100 °C / > 212 °F |
| Autoignition temperature | 510 °C / 950 °F |
| Lower Flammability Limit | no data available |
| Upper Flammability Limit | no data available |



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| Explosiveness | Not explosive |
| Fire and Explosion Hazards | In the event of fire the following may be released: Carbon monoxide (CO) Nitrogen oxides (NOx) Sulphur oxides |
| Suitable extinguishing media | Water spray, Dry powder, Carbon dioxide (CO ₂), Foam |
| Fire Fighting Instructions | 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. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions | Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces. |
| 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 | Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants. |

SECTION 7. HANDLING AND STORAGE

| | |
|---------------------------------|---|
| Handling procedures | Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Keep away from heat and sources of ignition. |
| Storing Procedures | Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep away from direct sunlight. Protect from freezing. Keep away from food, drink and animal feedingstuffs. |
| Work/Hygienic Procedures | Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. |



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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.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|-------------------------------|--|
| General Protection | Train employees in safe use of the product. Follow all label instructions. 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. |
| Eye/Face Protection | Safety glasses / Face shield |
| Hand protection | Chemical resistant nitrile rubber gloves |
| Body Protection | Wear long-sleeved shirt and long pants and shoes plus socks. |
| 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. |

Exposure Limits

| | | | | |
|-----------------|---------|------------|-------|----------|
| 1,2-Propanediol | 57-55-6 | CAD ON OEL | TWAEV | 50 ppm |
| | | CAD ON OEL | TWAEV | 10 mg/m3 |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------|---------------------------------|
| Appearance | white to light beige |
| Physical State | suspension |
| Odor | slight |
| pH | 6.5 - 7.8 (100 %) at 23 °C |
| Vapor Pressure | no data available |
| Vapor Density (Air = 1) | no data available |
| Density | 1.13 g/cm ³ at 20 °C |
| Evaporation rate | no data available |
| Boiling Point | no data available |



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| | |
|---|-------------------|
| Melting / Freezing Point | no data available |
| Water solubility | dispersible |
| Minimum Ignition Energy | no data available |
| Decomposition temperature | > 500 °C |
| Partition coefficient: n-octanol/water | no data available |
| Viscosity | 500 - 900 mPa.s |

SECTION 10. STABILITY AND REACTIVITY

| | |
|---|---|
| Conditions to avoid | freezing Heat, flames and sparks. |
| Incompatibility | no data available |
| Hazardous Decomposition Products | Nitrogen oxides (NO _x) Sulphur oxides Carbon oxides |
| Chemical Stability | Stable under recommended storage conditions. |

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredient, fenamidone.

| | |
|------------------------------|-----------------------------|
| Acute oral toxicity | rat: LD50: > 5,000 mg/kg |
| Acute dermal toxicity | rabbit: LD50: > 5,000 mg/kg |



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| Acute inhalation toxicity | rat: LC50: > 0.9 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths |
| | rat: LC50: > 3.6 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50. |
| Skin irritation | rabbit: Slight irritation |
| Eye irritation | rabbit: Mild eye irritation. |
| Sensitisation | guinea pig: Non-sensitizing. |
| Chronic toxicity | Fenamidone did not cause specific target organ toxicity in experimental animal studies. |

Assessment Carcinogenicity

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

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

| | |
|-------------------------------|---|
| Reproductive toxicity | Fenamidone did not cause reproductive toxicity in a two-generation study in rats. |
| Developmental Toxicity | Fenamidone did not cause developmental toxicity in rats and rabbits. |
| Mutagenicity | Fenamidone was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests. |

SECTION 12. ECOLOGICAL INFORMATION

| | |
|-----------------------------------|--|
| Toxicity to fish | Rainbow trout (<i>Oncorhynchus mykiss</i>) LC50: 0.74 mg/l Exposure time: 96 h |
| Toxicity to aquatic plants | <i>Scenedesmus subspicatus</i> IC50: 3.4 mg/l |



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Exposure time: 72 h

Acute Toxicity to Aquatic Invertebrates Water flea (*Daphnia magna*) static test
EC50: 0.055 mg/l
Exposure time: 48 h

Environmental precautions 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 from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

Ecological Information The ecological data given are those of the active ingredient.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance 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.

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

SECTION 14. TRANSPORT INFORMATION

TDG Not dangerous goods / not hazardous material

49CFR Not dangerous goods / not hazardous material

IMDG

UN number **3082**
Class 9
Packaging group III
Marine pollutant YES
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FENAMIDONE SOLUTION)

IATA

UN number **3082**
Class 9
Packaging group III
Environm. Hazardous Mark YES
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.



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(FENAMIDONE 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.

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

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 27462

US Federal Regulations

TSCA list

1,2-Propanediol 57-55-6

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

1,2-Propanediol 57-55-6 MN, RI

Canadian Regulations

Canadian Domestic Substance List

1,2-Propanediol 57-55-6

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

1,2-Propanediol 57-55-6



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SECTION 16. OTHER INFORMATION

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: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 10. Stability and reactivity.

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

Revision Date: 06/12/2013

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