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

Product identifier

Trade name PRIWEN™ 500 EC FUNGICIDE
Product code (UVP) 06280714
SDS Number 102000007367
PCP Registration No. 31959

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, Skin sensitisation: Category 1
Skin irritation, Specific target organ toxicity - repeated exposure, Reproductive toxicity: Category 2
Acute toxicity(Oral, Inhalation): Category 4

Labelling in accordance with Part 3 of the Hazardous Products Regulations

Signal word: Danger

Hazard statements
Causes serious eye damage.
May cause an allergic skin reaction.
Causes skin irritation.
May cause damage to organs (Eyes) through prolonged or repeated exposure.
Suspected of damaging fertility or the unborn child.
Harmful if swallowed.
Harmful if inhaled.

**Precautionary statements**
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Contaminated work clothing should not be allowed out of the workplace.
Wash thoroughly after handling.
Do not breathe mist or vapours.
Do not eat, drink or smoke when using this product.
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.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/ physician.
IF ON SKIN: Wash with plenty of water/ soap.
If skin irritation or rash occurs: Get medical advice/ attention.
Specific treatment (see supplemental first aid instructions on this label).
Take off contaminated clothing and wash before reuse.
Get medical advice/ attention if you feel unwell.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell. Rinse mouth.
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.
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

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiroxamine</td>
<td>118134-30-8</td>
<td>49.8</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>25.2</td>
</tr>
<tr>
<td>Dodecylbenzenesulphonic acid, compound with 2-aminoethanol (1:1)</td>
<td>26836-07-7</td>
<td>12.5</td>
</tr>
<tr>
<td>Ethoxylated polyarylphenol</td>
<td>99734-09-5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

### 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
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.

Eye contact
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.

Ingestion
Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed
Symptoms
No symptoms known or expected.

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
Water spray, Carbon dioxide (CO2), Foam, Sand
Unsuitable
High volume water jet

Special hazards arising from the substance or mixture
Dangerous gases are evolved in the event of a fire.

Advice for firefighters
Special protective equipment for firefighters
In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. 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
108 °C
Auto-ignition temperature
265 °C / 509 °F
Lower explosion limit
No data available
Upper explosion limit
No data available
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. Keep in suitable, closed containers for disposal.

Additional advice
Use personal protective equipment. Do not allow product to contact non-target plants. If the product 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. Use only in area provided with appropriate 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. 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. 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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiroxamine</td>
<td>118134-30-8</td>
<td>0.6 mg/m³ (SK-SEN)</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>

*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

Appearance       yellow to brown
Physical State    Liquid clear to slightly turbid
Odor             aromatic
Odour Threshold   No data available
pH               9.4 (ca.) (1 %) (23 °C) (deionized water)
Vapor Pressure    No data available
Vapor Density (Air = 1) No data available
Density          ca. 1.00 g/cm³ (20 °C)
Evaporation rate  No data available
Boiling Point     No data available
Melting / Freezing Point No data available
Water solubility  emulsifiable
Minimum Ignition Energy Not applicable
Decomposition temperature: No data available
Partition coefficient: n-octanol/water: No data available
Viscosity: 82 mPa.s (20 °C) Velocity gradient 150 /s
Flash point: 108 °C
Auto-ignition temperature: 265 °C / 509 °F
Lower explosion limit: No data available
Upper explosion limit: No data available
Explosivity: Not explosive
92/69/EEC, A.14 / OECD 113
Other information: Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity
Thermal decomposition: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid: Extremes of temperature and direct sunlight.
Incompatible materials: Strong oxidizing agents, Strong acids
Hazardous decomposition products: No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Eye contact, Skin contact, Inhalation, Ingestion
Immediate Effects
Eye: Causes eye irritation.
Skin: May cause skin irritation.
Ingestion: Harmful or fatal if swallowed.
Inhalation: Harmful if inhaled.
Information on toxicological effects
Acute oral toxicity: LD50 (Rat) > 500 - < 1,000 mg/kg
Test conducted with a similar formulation.
Acute inhalation toxicity  
LC50 (Rat)  2.323 mg/l  
Exposure time: 4 h  
Determined in the form of a respirable aerosol.  
Test conducted with a similar formulation.

Acute dermal toxicity  
LD50 (male/female combined Rat) > 2,000 mg/kg  
Test conducted with a similar formulation.

Skin corrosion/irritation  
Irritating to skin. (Rabbit)  
Test conducted with a similar formulation.

Serious eye damage/eye irritation  
Severe eye irritation. (Rabbit)  
Test conducted with a similar formulation.

Respiratory or skin sensitisation  
Skin: Non-sensitizing. (Guinea pig)  
OECD Test Guideline 406, Buehler test  
Skin: Sensitising (Mouse)  
OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – repeated exposure  
Spiroxamine caused specific target organ toxicity in experimental animal studies in dogs in the following organ(s): Eyes.

Assessment mutagenicity  
Spiroxamine was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity  
Spiroxamine was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH  
None.

NTP  
None.

IARC  
None.

OSHA  
None.

Assessment toxicity to reproduction  
Spiroxamine 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 Spiroxamine is related to parental toxicity.

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

Further information  
Acute toxicity studies have been bridged from a similar formulation(s).  
The non-acute information pertains to the active ingredient(s).
SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish
- LC50 (Oncorhynchus mykiss (rainbow trout)) 11.5 mg/l
- Exposure time: 96 h
- Test conducted with a similar formulation.

Toxicity to aquatic invertebrates
- EC50 (Daphnia magna (Water flea)) 10.3 mg/l
- Exposure time: 48 h
- Test conducted with a similar formulation.

Toxicity to aquatic plants
- EC50 (Desmodesmus subspicatus (green algae)) 0.029 mg/l
- Growth rate; Exposure time: 72 h
- Test conducted with a similar formulation.

Biodegradability
- Spiroxamine: Not rapidly biodegradable

Koc
- Spiroxamine: Koc: 2415

Bioaccumulation
- Spiroxamine: Bioconcentration factor (BCF) 87
- Does not bioaccumulate.

Mobility in soil
- Spiroxamine: Slightly mobile in soils

Additional ecological information
- No other effects to be mentioned.

Environmental precautions
- Do not allow to get into surface water, drains and ground water.
- 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 apply when weather conditions favor runoff or drift.
- 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.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product
- Dispose in accordance with all local, state/provincial and federal regulations.
- Follow advice on product label and/or leaflet.

Contaminated packaging
- Triple rinse containers.
- Do not re-use empty 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. (SPIROXAMINE, BENZYLALCOHOL)

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. (SPIROXAMINE, BENZYLALCOHOL SOLUTION)

IATA
UN number 3082
Class 9
Packaging group III
Environmental Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROXAMINE, BENZYLALCOHOL 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. 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

PCP Registration No. 31959
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 - 1 Others - none

Health - 2 Flammability - 1 Physical Hazard - 1 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: 12/21/2018

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