

**Safety Data Sheet****ENVIDOR® 240 SC MITICIDE**

SDS Number: 102000011424

SDS Version 1.3

Revision Date: 02/07/2014

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SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	ENVIDOR® 240 SC MITICIDE
SDS Number	102000011424
Product code (UVP)	06328725
PCP Registration No.	28051
Product Use	Insecticide, Miticide

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)

SECTION 2. HAZARDS IDENTIFICATION

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

<u>Emergency Overview</u>	Caution! Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling.
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Physical State	viscous liquid suspension
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Odor	slight
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Appearance	white to beige
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Exposure routes	Ingestion, Eye contact, Skin contact, Skin Absorption
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Immediate Effects

Skin	Harmful if absorbed through skin. May cause sensitisation by skin contact.
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Ingestion	Harmful if swallowed.
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Chronic or Delayed Long-Term

This product is not listed by NTP, IARC or regulated as a carcinogen by OSHA.
This product or its components may have target organ effects.

Potential Environmental Effect

Highly toxic to bees. Toxic to fish and aquatic invertebrates.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Spirodiclofen	148477-71-8	22.30
Glycerine	56-81-5	10.00

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. 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.
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	
Signs and Symptoms	To date no symptoms are known.
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	Not relevant; aqueous solution
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available

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Explosiveness	not applicable
Fire and Explosion Hazards	In the event of fire the following may be released: Hydrogen chloride (HCl) Carbon monoxide (CO)
Suitable extinguishing media	Water, Dry chemical, Foam
Unsuitable extinguishing media	None known.
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

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.

SECTION 7. HANDLING AND STORAGE

Handling procedures	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.
Storing Procedures	Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.
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	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 with side-shields
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

Spirodiclofen	148477-71-8	OES BCS*	TWA	0.39 mg/m ³
Glycerine	56-81-5	CAD AB OEL	TWA	10 mg/m ³
		CAD BC OEL	TWA	3 mg/m ³
		CAD BC OEL	TWA	10 mg/m ³
		CAD ON OEL	TWAEV	10 mg/m ³
		CAD SK OEL	8 HR ACL	10 mg/m ³
		CAD SK OEL	15 MIN ACL	20 mg/m ³
		OEL (QUE)	TWA	10 mg/m ³

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to beige
Physical State	viscous liquid suspension
Odor	slight
pH	4 - 6 (100 %)
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available

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Density	1.09 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	-17.8 °C / -0.0 °F
Water solubility	miscible
Minimum Ignition Energy	not applicable
Decomposition temperature	not applicable
Partition coefficient: n-octanol/water	no data available
Viscosity	700 - 1,000 mPa.s at 23 °C

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatibility	no data available
Hazardous Decomposition Products	No decomposition products expected under normal conditions of use.
Hazardous reactions	No dangerous reaction known under conditions of normal use.

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute oral toxicity	male/female combined rat: LD50: > 2,000 mg/kg
Acute dermal toxicity	male/female combined rat: LD50: > 4,000 mg/kg



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Acute inhalation toxicity	<p>male/female combined rat: LC50: > 3.146 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration.</p> <p>male/female combined rat: LC50: > 12.58 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.</p>
Skin irritation	rabbit: No skin irritation
Eye irritation	rabbit: No eye irritation
Sensitisation	<p>guinea pig: Sensitising OECD Test Guideline 406, Magnusson & Kligman test</p>
Chronic toxicity	Spirodiclofen did not cause specific target organ toxicity in experimental animal studies.
Assessment Carcinogenicity	<p>Spirodiclofen caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver.</p> <p>Spirodiclofen caused at high dose levels an increased incidence of tumours in rats in the following organ(s): uterus, testes. The tumours seen with Spirodiclofen were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.</p>
ACGIH	None.
NTP	None.
IARC	None.
OSHA	None.
Reproductive toxicity	Spirodiclofen did not cause reproductive toxicity in a two-generation study in rats.
Developmental Toxicity	Spirodiclofen did not cause developmental toxicity in rats and rabbits.
Mutagenicity	Spirodiclofen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish Rainbow trout (*Oncorhynchus mykiss*)

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LC50: > 0.035 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient spirodiclofen.
No acute toxicity was observed at its limit of water solubility.

Toxicity to aquatic plants Pseudokirchneriella subcapitata
Growth rate
IC50: > 0.06 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient spirodiclofen.
No acute toxicity was observed at its limit of water solubility.

Acute Toxicity to Aquatic Invertebrates Water flea (Daphnia magna)
EC50: > 0.045 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient spirodiclofen.
No acute toxicity was observed at its limit of water solubility.

Toxicity to other organisms Apis mellifera (bees)
LD50: 196 µg a.i./bee
Exposure time: 48 h

Environmental precautions Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Dispose in accordance with all local, state/provincial and federal regulations.

Container Disposal Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

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

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Glycerine 56-81-5

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 contains a chemical known to the State of California to cause cancer.

Spirodiclofen 148477-71-8

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

US State Right-To-Know Ingredients

Glycerine 56-81-5 MN

Canadian Regulations**Canadian Domestic Substance List**

Glycerine 56-81-5

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)**

Glycerine 56-81-5

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 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



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

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