



Material Safety Data Sheet
OBERON® 2 SC INSECTICIDE/MITICIDE

MSDS Number: 102000008393
 MSDS Version 2.2
 Revision Date: 06/11/2008

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name OBERON® 2 SC INSECTICIDE/MITICIDE
MSDS Number 102000008393
EPA Registration No. 264-719

Bayer CropScience
 2 T.W. Alexander Drive
 Research Triangle PK, NC 27709
 USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-866-99BAYER (1-866-992-2937)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Spiromesifen	283594-90-1	23.10
Trade Secret Ingredient(s)		10.00

SECTION 3. HAZARDS IDENTIFICATION

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

<u>Emergency Overview</u>	Caution! Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes and clothing.
Physical State	viscous liquid suspension
Odor	musty earthy
Appearance	white to light grey
Routes of Exposure	Ingestion, Eye contact, Skin Absorption
Immediate Effects	
Eye	Avoid contact with eyes.
Skin	Harmful if absorbed through skin. Avoid contact with skin and clothing.
Ingestion	Harmful if swallowed. Do not take internally.
Chronic or Delayed Long-Term	This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.



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Potential Environmental Effect Toxic to fish and aquatic invertebrates.

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 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	> 93.4 °C / 200.1 °F
Suitable Extinguishing Media	Water spray, Foam, Dry powder, Carbon dioxide (CO2), Sand
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. Cool closed containers/ tanks 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). 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 pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Protect from freezing.

- Work/Hygienic Procedures** Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. 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.

Follow all label instructions. Train employees in safe use of the product.

- Eye/Face Protection** Safety glasses with side-shields

- Hand Protection** Chemical resistant nitrile rubber gloves



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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 This product contains material which are Trade Secret and may have Occupational Exposure Limits. If more information is required, call the product information number listed in Section 1.

Spiromesifen	283594-90-1	OES BCS*	0.92 mg/m3
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*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to light grey
Physical State	viscous liquid suspension
Odor	musty earthy
pH	3.5 - 4.5 (100 %) (undiluted)
Density	1.03 g/cm ³ at 20 °C
Melting / Freezing Point	-18 °C / -0 °F
Partition coefficient: n-octanol/water	no data available
Viscosity	600 - 1,100 mPa.s

SECTION 10. STABILITY AND REACTIVITY

Conditions to Avoid	Freezing
Hazardous Decomposition Products	Thermal decomposition Carbon monoxide
Hazardous Reactions	Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on the formulated product. The non-acute information



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pertains to the active ingredient, spiromesifen technical.

- Acute Oral Toxicity** rat: LD50: > 2,000 mg/kg
- Acute Dermal Toxicity** rat: LD50: > 4,000 mg/kg
- Acute Inhalation Toxicity** rat: LC50: > 2.8 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.
- rat: LC50: > 11.2 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.
- Skin Irritation** rabbit: No skin irritation.
- Eye Irritation** rabbit: No eye irritation.
- Sensitization** guinea pig: Non-sensitizing.
- Chronic Toxicity** Spiromesifen caused effects in the liver, uterus, adrenal and/or thyroid (secondary effect) in chronic studies in rats and dogs.

Assessment Carcinogenicity

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

- ACGIH**
None.
- NTP**
None.
- IARC**
None.
- OSHA**
None.

Reproductive & Developmental Toxicity REPRODUCTION: Spiromesifen was not a primary reproductive toxicant in a two-generation study in rats. Reproductive effects were observed only at doses producing systemic toxicity.

DEVELOPMENTAL TOXICITY: Spiromesifen was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed in rats but were considered secondary to maternal toxicity.

Neurotoxicity Spiromesifen caused transient neurobehavioral effects without correlating neuropathological changes in acute and subchronic neurotoxicity screening studies in rats.

Mutagenicity Spiromesifen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.



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SECTION 12. ECOLOGICAL INFORMATION

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. 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

General Disposal Guidance Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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

DOT CLASSIFICATION:
Not regulated for Domestic Surface Transportation

IMDG CLASSIFICATION:
Environmentally Hazardous Substances, Liquid, N.O.S.(Spiromesifen)// 9 // UN3082 //PGIII // Marine Pollutant

FREIGHT CLASSIFICATION:
Insecticide or Fungicides, N.O.I.; other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 264-719

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



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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.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Reactivity - 1 Others - none

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

Reason to Revise: Updated Section 14: Transport Information.

Revision Date: 06/11/2008

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