

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

1/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

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

Product identifier

Trade name MOVENTO® HL

Product code (UVP) 84408387

SDS Number 102000031155

EPA Registration No. 264-1188

Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
United States

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 1-866-99BAYER (1-866-992-2937)

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Skin sensitisation: Category 1

Reproductive toxicity: Category 2

Specific target organ toxicity - single exposure: Category 3



Signal word: Warning

Hazard statements

May cause an allergic skin reaction.

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

2/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.

Precautionary statements

Avoid breathing mist and spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
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).
Wash contaminated clothing before reuse.
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.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|--------------------------|-------------|---------------------------|
| Spirotetramat | 203313-25-1 | 42.86 |

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. |

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

3/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

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 To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

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

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

Unsuitable None known.

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 Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information 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.

Flash point > 93.3 °C

Auto-ignition temperature No data available

Lower explosion limit No data available

Upper explosion limit No data available

Explosivity Not applicable

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

4/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

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 Use personal protective equipment. 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 Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage.

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 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. Protect from freezing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Components | CAS-No. | Control parameters | Update | Basis |
|---------------|-------------|-----------------------------------|---------|----------|
| Spirotetramat | 203313-25-1 | 2.8 mg/m ³ (SK-SEN) | | OES BCS* |
| Glycerine | 56-81-5 | 5 mg/m ³ | 02 2006 | OSHA Z1 |

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

5/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

| | | | | |
|---|---------|-----------------------|---------|----------|
| (Respirable fraction.) | | (PEL) | | |
| Glycerine (Total dust.) | 56-81-5 | 15 mg/m3 (PEL) | 02 2006 | OSHA Z1 |
| Glycerine (Respirable fraction.) | 56-81-5 | 5 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Glycerine (Total dust.) | 56-81-5 | 10 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Glycerine (Total dust and mist.) | 56-81-5 | 10 mg/m3 (TWA) | 06 2008 | TN OEL |
| Glycerine (Respirable fraction and dust or fume.) | 56-81-5 | 5 mg/m3 (TWA) | 06 2008 | TN OEL |
| Glycerine | 56-81-5 | 1000ug/m3 (ST ESL) | 03 2014 | TX ESL |
| Glycerine | 56-81-5 | 50ug/m3 (ST ESL) | 03 2014 | TX ESL |
| Glycerine | 56-81-5 | 100ug/m3 (AN ESL) | 03 2014 | TX ESL |
| Glycerine | 56-81-5 | 5ug/m3 (AN ESL) | 03 2014 | TX ESL |

*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

Goggles

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 | white to light beige |
| Physical State | suspension |
| Odor | weak characteristic |
| Odour Threshold | No data available |

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

6/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

| | |
|---|--|
| pH | 4.0 - 5.0 at 100 % (23 °C) |
| Vapor Pressure | No data available |
| Vapor Density (Air = 1) | No data available |
| Density | ca. 1.12 g/cm ³ at 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 | Not applicable |
| Viscosity | 600 - 900 mPa.s at 20 °C Velocity gradient 7.5 /s <= 500 mPa.s at 20 °C Velocity gradient 20 /s <= 180 mPa.s at 20 °C Velocity gradient 100 /s |
| Flash point | > 93.3 °C |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Explosivity | Not applicable |

SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|--|
| Thermal decomposition | No data available |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Extremes of temperature and direct sunlight. |
| Incompatible materials | No data available |
| Hazardous decomposition products | No decomposition products expected under normal conditions of use. |

SECTION 11: TOXICOLOGICAL INFORMATION

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

7/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

Exposure routes Skin contact, Eye contact, Inhalation, Ingestion

Immediate Effects

Eye May cause eye irritation.

Skin Harmful if absorbed through skin.

Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (female Rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (male/female combined Rat) > 5.09 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.

Acute dermal toxicity LD50 (male/female combined Rat) > 5,000 mg/kg

Skin irritation No skin irritation (Rabbit)

Eye irritation No eye irritation (Rabbit)

Sensitisation Sensitising (Mouse)

Assessment repeated dose toxicity

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

Assessment mutagenicity

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

Assessment carcinogenicity

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

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Spirotetramat caused male reproductive toxicity in the presence of general toxicity in the rat at very high experimental dose levels. There were no effects on male fertility in mice and dogs. The reproductive toxicity seen with Spirotetramat is due to an overwhelmed elimination capacity at high doses. The high dose levels needed for this effect cannot be achieved even in a worst case exposure scenario.

Assessment developmental toxicity

Spirotetramat caused developmental toxicity only at dose levels toxic to the dams. Spirotetramat caused

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

8/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

a delayed foetal growth, an increased incidence of variations.

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

| | |
|--|---|
| Toxicity to fish | LC50 (Lepomis macrochirus (Bluegill sunfish)) 2.20 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient spirotetramat. |
| Toxicity to aquatic invertebrates | EC50 (Daphnia magna (Water flea)) > 42.7 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient spirotetramat. EC50 (Chironomus riparius (non-biting midge)) 0.46 mg/l Exposure time: 28 d The value mentioned relates to the active ingredient spirotetramat. NOEC (Chironomus riparius (non-biting midge)) 0.1 mg/l Exposure time: 28 d The value mentioned relates to the active ingredient spirotetramat. |
| Toxicity to aquatic plants | IC50 (Raphidocelis subcapitata (freshwater green alga)) 8.15 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient spirotetramat. IC50 (Lemna gibba (gibbous duckweed)) 6.21 mg/l Growth rate; Exposure time: 7 d The value mentioned relates to the active ingredient spirotetramat. |
| Biodegradability | Spirotetramat: Not rapidly biodegradable |
| Koc | Spirotetramat: Koc: 289 |
| Bioaccumulation | Spirotetramat: Does not bioaccumulate. |
| Mobility in soil | Spirotetramat: Moderately mobile in soils |
| 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. Do not apply when weather conditions favor runoff or drift. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Apply this product as specified on the label. |

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

9/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|-------------------------------|---|
| Product | Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. |
| Contaminated packaging | Do not re-use empty containers. Triple rinse containers. Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke. Follow advice on product label and/or leaflet. |
| RCRA Information | Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply. |

SECTION 14: TRANSPORT INFORMATION

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

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

10/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-1188

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.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

SAFETY DATA SHEET



MOVENTO® HL

Version 1.0 / USA
102000031155

11/11
Revision Date: 03/24/2016
Print Date: 01/11/2017

Signal word: Caution!

Hazard statements: Harmful if swallowed or absorbed through skin.
Moderate eye irritation.
Avoid contact with skin, eyes and clothing.
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 - 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

Reason for Revision: New Safety Data Sheet.

Revision Date: 03/24/2016

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