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

Product identifier
Trade name MOVENTO® MPC
Product code (UVP) 79219652
SDS Number 102000017023
EPA Registration No. 264-1065

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 1B
Reproductive toxicity: Category 2

Signal word: Warning

Hazard statements
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

Precautionary statements
Avoid breathing mist and spray.
Contaminated work clothing should not be allowed out of the workplace.
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
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 exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/container in accordance with local regulation.

Other hazards  
No other hazards known.

---

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>Spirotetramat</td>
<td>203313-25-1</td>
<td>14.5</td>
</tr>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>10.0</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
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, Sand

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

Further information
Avoid contact with spilled product or contaminated surfaces. 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
Autoignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Explosivity not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Precautions
Avoid contact with spilled product or contaminated surfaces. Isolate hazard area. Keep unauthorized people away.

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. Do not allow product to contact non-target plants.

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. Maintain exposure levels below the exposure limit through the use of general and local 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. 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

<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>Spirotetramat</td>
<td>203313-25-1</td>
<td>2.8 mg/m3 (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction.)</td>
<td>56-81-5</td>
<td>5 mg/m3 (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Glycerine (Total dust.)</td>
<td>56-81-5</td>
<td>15 mg/m3 (PEL)</td>
<td>02 2006</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction.)</td>
<td>56-81-5</td>
<td>5 mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Glycerine (Total dust.)</td>
<td>56-81-5</td>
<td>10 mg/m3 (TWA)</td>
<td>1989</td>
<td>OSHA Z1A</td>
</tr>
<tr>
<td>Glycerine (Total dust and mist.)</td>
<td>56-81-5</td>
<td>10 mg/m3 (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Glycerine (Respirable fraction and dust or fume.)</td>
<td>56-81-5</td>
<td>5 mg/m3 (TWA)</td>
<td>06 2008</td>
<td>TN OEL</td>
</tr>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>1000ug/m3 (ST ESL)</td>
<td>03 2014</td>
<td>TX ESL</td>
</tr>
<tr>
<td>Glycerine</td>
<td>56-81-5</td>
<td>50ug/m3 (ST ESL)</td>
<td>03 2014</td>
<td>TX ESL</td>
</tr>
</tbody>
</table>
**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** Safety glasses with side-shields

**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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>white to light beige</td>
</tr>
<tr>
<td><strong>Physical State</strong></td>
<td>suspension</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>characteristic</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>4.0 - 5.0 at 100 % (23 °C)</td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Vapor Density (Air = 1)</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>1.06 g/cm³ at 20 °C</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Melting / Freezing Point</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Water solubility</strong></td>
<td>no data available</td>
</tr>
<tr>
<td><strong>Minimum Ignition Energy</strong></td>
<td>not applicable</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>not applicable</td>
</tr>
</tbody>
</table>
Partition coefficient: n-octanol/water  
Flash point  
Autoignition temperature  
Lower explosion limit  
Upper explosion limit  
Explosivity

**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity**
- Thermal decomposition: not applicable
- 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**
- freezing

**Incompatible materials**
- no data available

**Hazardous decomposition products**
- No decomposition products expected under normal conditions of use.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Exposure routes**
- Ingestion, Eye contact, Skin Absorption

**Immediate Effects**
- **Eye**
  - Moderate eye irritation. May cause mild irritation to eyes.
- **Skin**
  - Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
- **Ingestion**
  - Harmful if swallowed.

**Information on toxicological effects**
- **Acute oral toxicity**
  - LD50 (female rat) > 2,000 mg/kg
- **Acute inhalation toxicity**
  - LC50 (rat) > 3.0 mg/l
  - Exposure time: 4 h
  - Determined in the form of liquid aerosol.
  - Highest attainable concentration.
  - No deaths
  - LC50 (rat) > 12.0 mg/l
  - Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

**Acute dermal toxicity**
LD50 (rat) > 4,000 mg/kg

**Skin irritation**
No skin irritation (rabbit)

**Eye irritation**
Mild eye irritation. (rabbit)

**Sensitisation**
Sensitising (guinea pig)

**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 a delayed foetal growth, an increased incidence of variations.

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

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**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.

**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 apply when weather conditions favor runoff or drift.
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.
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.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Product**
Do not contaminate water, food, or feed by disposal.
Dispose in accordance with all local, state/provincial and federal regulations.
Follow advice on product label and/or leaflet.

**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.

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

**SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 264-1065

**US Federal Regulations**
**TSCA list**
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 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
Glycerine 56-81-5 MN

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:

Signal word: Caution!

Hazard statements:
Harmful if swallowed or absorbed through skin.
Moderate eye irritation.
Avoid contact with skin, eyes and clothing.
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
CAS-Nr. Chemical Abstracts Service number
EINECS European inventory of existing commercial substances
ELINGS European list of notified chemical substances
IARC US. IARC Monographs on Occupational Exposures to Chemical Agents
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

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: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 09/09/2015

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