



**OBERON 240 SC**

**U-WW**

Version 2 / EU  
102000007775

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Revision Date: 13.01.2017  
Print Date: 19.06.2018

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

**1.1 Product identifier**

**Trade name** OBERON 240 SC U-WW  
**Product code (UVP)** 05544300

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

**Use** Insecticide

**1.3 Details of the supplier of the safety data sheet**

**Supplier** Bayer AG  
Kaiser-Wilhelm-Allee 1  
51373 Leverkusen  
Germany  
**Telefax** +49(0)2173-38-7394  
**Responsible Department** Substance Classification & Registration  
+49(0)2173-38-3409 (during business hours only)  
Email: BCS-SDS@bayer.com

**1.4 Emergency telephone no.**

**Emergency telephone no.** Global Incident Response Hotline (24h)  
+1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Acute aquatic toxicity: Category 1  
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

**2.2 Label elements**

**Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Hazard label for supply/use required.

**Hazardous components which must be listed on the label:**

- Spiromesifen



**Signal word:** Warning

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|        |  |
|--------|--|
| H410   | Very toxic to aquatic life with long lasting effects.  |
| EUH401 | To avoid risks to human health and the environment, comply with the instructions for use.  |
| EUH208 | Contains Spiromesifen, 1,2-benzisothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one. May produce an allergic reaction. |

**Precautionary statements**

|      |  |
|------|--|
| P501 | Dispose of contents/container in accordance with local regulation. |
|------|--|

**2.3 Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**Suspension concentrate (=flowable concentrate)(SC)  
Spiromesifen 240g/l**Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

| Name   | CAS-No. /<br>EC-No. /<br>REACH Reg. No. | Classification  | Conc. [%]              |
|--|---|---|------------------------|
|  |   | REGULATION (EC) No<br>1272/2008   |                        |
| Spiromesifen   | 283594-90-1                             | Skin Sens. 1, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410  | 22,9                   |
| 1,2-Benzisothiazol-3(2H)-one   | 2634-33-5<br>220-120-9                  | Eye Dam. 1, H318<br>Aquatic Acute 1, H400<br>Acute Tox. 4, H302<br>Skin Sens. 1, H317<br>Skin Irrit. 2, H315  | > 0,005 – <<br>0,05    |
| Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one | 55965-84-9                              | Acute Tox. 3, H311<br>Acute Tox. 3, H301<br>Skin Corr. 1B, H314<br>Acute Tox. 3, H331<br>Skin Sens. 1, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | > 0,0002 – <<br>0,0015 |
| Glycerine  | 56-81-5<br>200-289-5                    | Not classified  | > 1                    |

**Further information**

|              |             |                      |
|--------------|-------------|----------------------|
| Spiromesifen | 283594-90-1 | M-Factor: 10 (acute) |
|--------------|-------------|----------------------|

For the full text of the H-Statements mentioned in this Section, see Section 16.



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**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

|                       |  |
|-----------------------|--|
| <b>General advice</b> | Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.  |
| <b>Inhalation</b>     | Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.   |
| <b>Skin contact</b>   | Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.   |
| <b>Eye contact</b>    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists. |
| <b>Ingestion</b>      | Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.  |

**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms** No symptoms known or expected.

**4.3 Indication of any immediate medical attention and special treatment needed**

**Treatment** Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

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**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

**Suitable** Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Sand

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released:, Carbon monoxide (CO)

**5.3 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.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

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**Precautions** Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

**6.2 Environmental precautions** Do not allow to get into surface water, drains and ground water.

**6.3 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). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

**6.4 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****7.1 Precautions for safe handling**

**Advice on safe handling** Use only in area provided with appropriate exhaust ventilation.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

**7.2 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.

**Suitable materials** HDPE (high density polyethylene)

**7.3 Specific end use(s)** Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

| Components   | CAS-No.     | Control parameters                 | Update | Basis    |
|--------------|-------------|------------------------------------|--------|----------|
| Spiromesifen | 283594-90-1 | 0,92 mg/m <sup>3</sup><br>(SK-SEN) |        | OES BCS* |

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls**

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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**

Respiratory protection is not required under anticipated circumstances of exposure.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection**

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

|                      |  |
|----------------------|--|
| Material             | Nitrile rubber                           |
| Rate of permeability | > 480 min                                |
| Glove thickness      | > 0,4 mm                                 |
| Directive            | Protective gloves complying with EN 374. |

**Eye protection**

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection**

Wear standard coveralls and Category 3 Type 6 suit.

If there is a risk of significant exposure, consider a higher protective type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | suspension  |
| <b>Colour</b>               | grey white  |
| <b>Odour</b>                | weak, characteristic  |
| <b>pH</b>                   | 4,0 - 5,5 at 100 % (23 °C)  |
| <b>Flash point</b>          | > 100 °C<br>No flash point - Determination conducted up to the boiling point. |
| <b>Ignition temperature</b> | 410 °C  |
| <b>Density</b>              | ca. 1,05 g/cm <sup>3</sup> at 20 °C   |
| <b>Water solubility</b>     | miscible  |



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|   |  |
|---|--|
| <b>Partition coefficient: n-octanol/water</b> | Spiromesifen: log Pow: 4,55 at 20 °C                         |
| <b>Impact sensitivity</b>                     | Not impact sensitive.  |
| <b>Oxidizing properties</b>                   | No oxidizing properties                                      |
| <b>Explosivity</b>                            | Not explosive<br>92/69/EEC, A.14 / OECD 113                  |
| <b>9.2 Other information</b>                  | Further safety related physical-chemical data are not known. |

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**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity**

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.

**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5 Incompatible materials** Store only in the original container.

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

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**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute oral toxicity** LD50 (Rat) > 2.500 mg/kg

**Acute inhalation toxicity** LC50 (Rat) > 2,759 mg/l  
Exposure time: 4 h  
Determined in the form of a respirable aerosol.  
Highest attainable concentration.

**Acute dermal toxicity** LD50 (Rat) > 4.000 mg/kg

**Skin irritation** No skin irritation (Rabbit)

**Eye irritation** No eye irritation (Rabbit)

**Sensitisation** Non-sensitizing. (Guinea pig)  
OECD Test Guideline 406, Buehler test

**Assessment STOT Specific target organ toxicity – repeated exposure**

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

**Assessment mutagenicity**

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

**Assessment carcinogenicity**

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

**Assessment toxicity to reproduction**

Spiromesifen 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 Spiromesifen is related to parental toxicity.

**Assessment developmental toxicity**

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

**Aspiration hazard**

Based on available data, the classification criteria are not met.

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**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

**Toxicity to fish** LC50 (Lepomis macrochirus (Bluegill sunfish)) 0,245 mg/l  
Exposure time: 96 h

**Toxicity to aquatic invertebrates** EC50 (Daphnia magna (Water flea)) 68,7 mg/l  
Exposure time: 48 h

**Toxicity to aquatic plants** IC50 (Raphidocelis subcapitata (freshwater green alga)) > 6,4 mg/l  
Growth rate; Exposure time: 72 h

**12.2 Persistence and degradability**

**Biodegradability** Spiromesifen:  
Not rapidly biodegradable

**Koc** Spiromesifen: Koc: 30900

**12.3 Bioaccumulative potential**

**Bioaccumulation** Spiromesifen: Bioconcentration factor (BCF) 545  
Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility in soil** Spiromesifen: Immobile in soil

**12.5 Results of PBT and vPvB assessment**

**PBT and vPvB assessment** Spiromesifen: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

**12.6 Other adverse effects**

**Additional ecological information** No other effects to be mentioned.

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

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|   |   |
|---|---|
| <b>Product</b>                          | In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. |
| <b>Contaminated packaging</b>           | Not completely emptied packagings should be disposed of as hazardous waste.   |
| <b>Waste key for the unused product</b> | <b>02 01 08*</b> agrochemical waste containing dangerous substances   |

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**SECTION 14: TRANSPORT INFORMATION****ADR/RID/ADN**

|                                 |   |
|---------------------------------|---|
| 14.1 UN number                  | <b>3082</b>   |
| 14.2 Proper shipping name       | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROMESIFEN SOLUTION) |
| 14.3 Transport hazard class(es) | 9   |
| 14.4 Packing group              | III   |
| 14.5 Environm. Hazardous Mark   | YES   |
| Hazard no.                      | 90  |
| Tunnel Code                     | E   |

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

**IMDG**

|                                 |   |
|---------------------------------|---|
| 14.1 UN number                  | <b>3082</b>   |
| 14.2 Proper shipping name       | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROMESIFEN SOLUTION) |
| 14.3 Transport hazard class(es) | 9   |
| 14.4 Packing group              | III   |
| 14.5 Marine pollutant           | YES   |

**IATA**

|                                 |  |
|---------------------------------|--|
| 14.1 UN number                  | <b>3082</b>  |
| 14.2 Proper shipping name       | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROMESIFEN SOLUTION ) |
| 14.3 Transport hazard class(es) | 9  |
| 14.4 Packing group              | III  |
| 14.5 Environm. Hazardous Mark   | YES  |

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

No transport in bulk according to the IBC Code.

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**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Further information**

WHO-classification: III (Slightly hazardous)

**15.2 Chemical Safety Assessment**

A chemical safety assessment is not required.

**SECTION 16: OTHER INFORMATION**

**Text of the hazard statements mentioned in Section 3**

|      |   |
|------|---|
| H301 | Toxic if swallowed.                                   |
| H302 | Harmful if swallowed.                                 |
| H311 | Toxic in contact with skin.                           |
| H314 | Causes severe skin burns and eye damage.              |
| H315 | Causes skin irritation.                               |
| H317 | May cause an allergic skin reaction.                  |
| H318 | Causes serious eye damage.                            |
| H331 | Toxic if inhaled.                                     |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Abbreviations and acronyms**

|            |  |
|------------|--|
| ADN        | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways                |
| ADR        | European Agreement concerning the International Carriage of Dangerous Goods by Road                            |
| ATE        | Acute toxicity estimate  |
| CAS-Nr.    | Chemical Abstracts Service number  |
| ECx        | Effective concentration to x %   |
| EC-No.     | European community number  |
| EINECS     | European inventory of existing commercial substances   |
| ELINCS     | European list of notified chemical substances  |
| EN         | European Standard  |
| EU         | European Union   |
| IATA       | International Air Transport Association  |
| IBC        | International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) |
| ICx        | Inhibition concentration to x %  |
| IMDG Conc. | International Maritime Dangerous Goods Concentration   |
| LCx        | Lethal concentration to x %  |
| LDx        | Lethal dose to x %   |
| LOEC/LOEL  | Lowest observed effect concentration/level   |
| MARPOL     | MARPOL: International Convention for the prevention of marine pollution from ships                             |
| N.O.S.     | Not otherwise specified  |
| NOEC/NOEL  | No observed effect concentration/level   |
| OECD       | Organization for Economic Co-operation and Development   |
| RID        | Regulations concerning the International Carriage of Dangerous Goods by Rail                                   |



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TWA            Time weighted average  
UN             United Nations  
WHO           World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

**Reason for Revision:**            Safety Data Sheet according to Regulation (EU) No. 2015/830.

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|--|
| Changes since the last version are highlighted in the margin. This version replaces all previous versions. |
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