



OSPREY® HERBICIDE

Version 2.0 / USA
102000011398

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Revision Date: 06/19/2014
Print Date: 12/31/2014

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

Product identifier

Trade name OSPREY® HERBICIDE

Product code (UVP) 06372902

SDS Number 102000011398

EPA Registration No. 264-802

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

Use Herbicide

Restrictions on use See product label for restrictions.

Information on manufacturer

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

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-866-99BAYER (1-866-992-2937)

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Eye irritation : Category 2B

Signal word: Warning

Hazard statements

Causes eye irritation.

Precautionary statements

Wash face, hands and any exposed skin thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Other hazards

No other hazards known.



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Average % by Weight |
|--|-------------|---------------------|
| Mesosulfuron-methyl | 208465-21-8 | 4.50 |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 16.90 |
| Stearyl alcohol, ethoxylated | 9005-00-9 | 4.25 |
| Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt | 68425-94-5 | 10.20 |
| Tetrapropylene benzene sulfonate, calcium salt | 11117-11-6 | 1.07 |

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 | To date no symptoms are known. |
| Indication of any immediate medical attention and special treatment needed | |
| Treatment | There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. |

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

| | |
|-------------------|--|
| Suitable | Foam, Dry powder, Carbon dioxide (CO ₂), Water spray |
| Unsuitable | None known. |



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| | |
|--|--|
| 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 | 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 | not applicable |
| Autoignition temperature | no data available |
| Lower explosion limit | not applicable |
| Upper explosion limit | not applicable |
| Explosivity | Not explosive |
| Dust explosion class | no data available |

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 Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. 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 Ensure adequate ventilation.

Advice on protection against fire and explosion Avoid dust formation by friction.

Hygiene measures When using, do not eat, drink or smoke. Wash hands thoroughly with



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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 original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingsuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Components | CAS-No. | Control parameters | Update | Basis |
|--|-------------|----------------------------------|---------|-----------|
| Mefenpyr-diethyl | 135590-91-9 | 10 mg/m3 (OES BCS) | | OES BCS* |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 2560ug/m3 (ST ESL) | 07 2011 | TX ESL |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 460ppb (ST ESL) | 07 2011 | TX ESL |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 256ug/m3 (AN ESL) | 07 2011 | TX ESL |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 46ppb (AN ESL) | 07 2011 | TX ESL |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 1,600 mg/m3/400 ppm (TWA PEL) | 08 2010 | US CA OEL |
| Kaolin (Respirable fraction.) | 1332-58-7 | 2 mg/m3 (TWA) | 02 2012 | ACGIH |
| Kaolin (Total) | 1332-58-7 | 10 mg/m3 (REL) | 2010 | NIOSH |
| Kaolin (Respirable.) | 1332-58-7 | 5 mg/m3 (REL) | 2010 | NIOSH |
| Kaolin (Total dust.) | 1332-58-7 | 15 mg/m3 (PEL) | 02 2006 | OSHA Z1 |
| Kaolin (Respirable fraction.) | 1332-58-7 | 5 mg/m3 (PEL) | 02 2006 | OSHA Z1 |
| Kaolin (Respirable fraction.) | 1332-58-7 | 5 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Kaolin (Total dust.) | 1332-58-7 | 10 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Kaolin (Total dust.) | 1332-58-7 | 10 mg/m3 (TWA) | 06 2008 | TN OEL |
| Kaolin (Respirable fraction.) | 1332-58-7 | 5 mg/m3 (TWA) | 06 2008 | TN OEL |
| Kaolin | 1332-58-7 | 2ug/m3 | 02 2013 | TX ESL |



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| | | | | |
|------------------------------|-----------|----------------------|---------|-----------|
| (Particulate.) | | (AN ESL) | | |
| Kaolin (Particulate.) | 1332-58-7 | 20ug/m3 (ST ESL) | 02 2013 | TX ESL |
| Kaolin (Respirable dust.) | 1332-58-7 | 2 mg/m3 (TWA PEL) | 08 2010 | US CA OEL |

*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 gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

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

| | |
|---------------------------------|---|
| Appearance | brown |
| Physical State | water-dispersible granules |
| Odor | aromatic |
| pH | 7.3 - 9.3 at 10 % (23 °C) (deionized water) |
| Vapor Pressure | no data available |
| Vapor Density (Air = 1) | no data available |
| Bulk density | 0.613 - 0.719 g/ml (loose) |
| Evaporation rate | no data available |
| Boiling Point | not applicable |
| Melting / Freezing Point | no data available |
| Water solubility | dispersible |
| Minimum Ignition Energy | no data available |



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| | |
|---|---|
| Decomposition temperature | > 170 °C , Heating rate: 3 K/min Test conducted with a similar formulation. |
| Partition coefficient: n-octanol/water | 1.9 at 25 °C The value mentioned relates to the active ingredient mesosulfuron-methyl. |
| Viscosity | not applicable |
| Flash point | not applicable |
| Autoignition temperature | no data available |
| Lower explosion limit | not applicable |
| Upper explosion limit | not applicable |
| Explosivity | Not explosive |
| Dust explosion class | no data available |
| Other information | Further safety related physical-chemical data are not known. |

SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|--|
| Thermal decomposition | > 170 °C, Heating rate: 3 K/min Test conducted with a similar formulation. |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. Stable under recommended storage conditions. |
| 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

| | |
|--------------------------|--|
| Exposure routes | Ingestion, Skin Absorption, Eye contact |
| Immediate Effects | |
| Eye | Moderate eye irritation. |
| Skin | May cause slight irritation. Harmful if absorbed through skin. |
| Ingestion | Harmful if swallowed. |



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Information on toxicological effects

| | |
|----------------------------------|---|
| Acute oral toxicity | LD50 (rat) > 2,000 mg/kg |
| Acute inhalation toxicity | LC50 (rat) > 2.17 mg/l Exposure time: 4 h Highest attainable concentration. LC50 (rat) > 8.68 mg/l Exposure time: 1 h Extrapolated from the 4 hr LC50. |
| Acute dermal toxicity | LD50 (rat) > 2,000 mg/kg |
| Skin irritation | Slight irritation (rabbit) |
| Eye irritation | Moderate eye irritation. (rabbit) |
| Sensitisation | Non-sensitizing. (guinea pig) OECD Test Guideline 406, Buehler test |

Repeated dose toxicity

Chronic toxicity

Assessment repeated dose toxicity

Mesosulfuron-methyl did not cause specific target organ toxicity in experimental animal studies.
Mefenpyr-diethyl did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

Mesosulfuron-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Mefenpyr-diethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Mesosulfuron-methyl was not carcinogenic in lifetime feeding studies in rats and mice.
Mefenpyr-diethyl was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Mesosulfuron-methyl did not cause reproductive toxicity in a two-generation study in rats.
Mefenpyr-diethyl did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Mesosulfuron-methyl did not cause developmental toxicity in rats and rabbits.
Mefenpyr-diethyl caused developmental toxicity only at dose levels toxic to the dams. The



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developmental effects seen with Mefenpyr-diethyl are related to maternal toxicity.

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 | (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 5.7 mg/l Exposure time: 96 h |
| Toxicity to aquatic invertebrates | (Water flea (<i>Daphnia magna</i>)) 1.5 mg/l Exposure time: 48 h |
| Toxicity to aquatic plants | (<i>Pseudokirchneriella subcapitata</i>) 15.7 mg/l Exposure time: 72 h |
| Biodegradability | Not readily biodegradable. |
| Bioaccumulation | Not applicable for this mixture. |
| Mobility in soil | Not applicable for this mixture. |
| Additional ecological information | The ecological data refer to a similar formulation. |
| 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. 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

Waste treatment methods

| | |
|-------------------------------|---|
| Product | Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Follow advice on product label and/or leaflet. |
| Contaminated packaging | Do not re-use empty containers. Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet. |



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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 **3077**
Class **9**
Packaging group **III**
Marine pollutant **YES**
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MESOSULFURON-METHYL, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC MIXTURE)**

IATA

UN number **3077**
Class **9**
Packaging group **III**
Environm. Hazardous Mark **YES**
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MESOSULFURON-METHYL, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC MIXTURE)**

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.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-802

US Federal Regulations

TSCA list

Solvent Naphtha (petroleum), heavy aromatic 64742-94-5
Stearyl alcohol, ethoxylated 9005-00-9
Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt 68425-94-5

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



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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

| | |
|--|------------|
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 |
| Stearyl alcohol, ethoxylated | 9005-00-9 |
| Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt | 68425-94-5 |
| Tetrapropylene benzene sulfonate, calcium salt | 11117-11-6 |

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)

| | |
|--|------------|
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 |
| Tetrapropylene benzene sulfonate, calcium salt | 11117-11-6 |

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.

SECTION 16: OTHER INFORMATION



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NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 1 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 1 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: 06/19/2014

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