# BICEP II MAGNUM

| Version | Revision Date: | SDS Number: | Date of last issue: - |
|---|---|---|---|
| 1.1 | 11/30/2023 | S11306464 | Date of first issue: 07/20/2015 |

## SECTION 1. IDENTIFICATION

Product name : BICEP II MAGNUM
Design code : A9560A

Product Registration number : 100-817

**Manufacturer or supplier's details**

Company name of supplier : Syngenta Crop Protection, LLC
Address : Post Office Box 18300
Greensboro NC 27419
United States of America (USA)

Telephone : 1 800 334 9481
Telefax : 1 336 632 2192

E-mail address : sds.requests@syngenta.com

**Recommended use of the chemical and restrictions on use**

Recommended use : Herbicide

Restrictions on use : General Use Pesticide

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Specific target organ toxicity - repeated exposure : Category 2 (Heart, Kidney)

**GHS label elements**

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H373 May cause damage to organs (Heart, Kidney) through prolonged or repeated exposure.

Precautionary Statements :

**Prevention:**

P260 Do not breathe mist or vapors.

**Response:**

P314 Get medical advice/ attention if you feel unwell.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Components**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|---|---|
| atrazine | 1912-24-9 | 33.6364 |
| S-metolachlor | 87392-12-9 | 26.3636 |
| ethane-1,2-diol | 107-21-1 | >= 1 - < 5 |
| amines, tallow alkyl, ethoxylated | 61791-26-2 | >= 1 - < 5 |
| benoxacor | 98730-04-2 | >= 1 - < 5 |

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled : Take the victim into fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control center immediately.

In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.

If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed : Nonspecific
No symptoms known or expected.
May cause damage to organs through prolonged or repeated exposure.

Notes to physician : There is no specific antidote available.
Treat symptomatically.

## SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam

or
Water spray

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during fire fighting : As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

Special protective equipment for fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

## SECTION 7. HANDLING AND STORAGE

Advice on safe handling : No special protective measures against fire required.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.

Conditions for safe storage : No special storage conditions required.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| atrazine | 1912-24-9 | TWA | 2 mg/m3 | Syngenta |

| | | | | |
|---|---|---|---|---|
| | | TWA | 5 mg/m3 | NIOSH REL |
| | | TWA | 5 mg/m3 | OSHA P0 |
| | | TWA (Inhalable particulate matter) | 2 mg/m3 | ACGIH |
| S-metolachlor | 87392-12-9 | TWA | 5 mg/m3 | Syngenta |
| ethane-1,2-diol | 107-21-1 | C | 50 ppm<br>125 mg/m3 | OSHA P0 |
| | | TWA (Vapor) | 25 ppm | ACGIH |
| | | STEL (Vapor) | 50 ppm | ACGIH |
| | | STEL (Inhalable fraction, Aerosol only) | 10 mg/m3 | ACGIH |
| benoxacor | 98730-04-2 | TWA | 1 mg/m3 | Syngenta |

**Engineering measures** : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
The extent of these protection measures depends on the actual risks in use.
Maintain air concentrations below occupational exposure standards.
Where necessary, seek additional occupational hygiene advice.

**Personal protective equipment**

Respiratory protection : No personal respiratory protective equipment normally required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. 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. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : No special protective equipment required.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to

| | | |
|---|---|---|
| | | the specific work-place.<br>Remove and wash contaminated clothing before re-use.<br>Wear as appropriate:<br>Impervious clothing |
| Protective measures | : | The use of technical measures should always have priority over the use of personal protective equipment.<br>When selecting personal protective equipment, seek appropriate professional advice. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | fluid paste |
| Color | : | white |
| Odor | : | No data available |
| Odor Threshold | : | No data available |
| pH | : | 5 - 8 (68 - 77 °F / 20 - 25 °C)<br>Concentration: 1 %w/v |
| Melting point/range | : | No data available |
| Boiling point/boiling range | : | No data available |
| Flash point | : | No data available |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Density | : | 1.1 g/cm3 (68 - 77 °F / 20 - 25 °C) |
| Solubility(ies) | | |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |

| | | |
|---|---|---|
| Viscosity | | |
| Viscosity, dynamic | : | 400 - 900 mPa.s (68 - 77 °F / 20 - 25 °C) |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Particle size | : | No data available |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | None reasonably foreseeable. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | : | No decomposition if used as directed. |
| Incompatible materials | : | None known. |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

Ingestion
Inhalation
Skin contact
Eye contact

**Acute toxicity**

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

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): 3,271 mg/kg |
| Acute inhalation toxicity | : | LC50 (Rat, male and female): > 1.6 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Assessment: The substance or mixture has no acute inhalation toxicity |
| Acute dermal toxicity | : | LD50 (Rabbit, male and female): > 2,020 mg/kg<br>Assessment: The substance or mixture has no acute dermal toxicity |

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): 3,090 mg/kg |
| Acute inhalation toxicity | : | LC50 (Rat, male and female): > 5.82 mg/l |

Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 3,100 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

**S-metolachlor:**

Acute oral toxicity : LD50 (Rat, male and female): 2,672 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.91 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

**ethane-1,2-diol:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

**amines, tallow alkyl, ethoxylated:**

Acute oral toxicity : LD50 (Rat): > 300 - 2,000 mg/kg
Remarks: Information given is based on data obtained from similar substances.

Acute inhalation toxicity : LC50 (Rat): 0.473 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

**benoxacor:**

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,010 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**

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

**Product:**

Species : Rabbit
Result : No skin irritation

**Components:**

**atrazine:**

Species : Rabbit
Result : No skin irritation

**S-metolachlor:**

Species : Rabbit
Result : No skin irritation

**benoxacor:**

Species : Rabbit
Result : No skin irritation

**Serious eye damage/eye irritation**

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

**Product:**

Species : Rabbit
Result : No eye irritation

**Components:**

**atrazine:**

Species : Rabbit
Result : No eye irritation

**S-metolachlor:**

Species : Rabbit
Result : No eye irritation

**amines, tallow alkyl, ethoxylated:**

Result : Risk of serious damage to eyes.
Remarks : Information given is based on data obtained from similar substances.

**benoxacor:**

Species : Rabbit
Result : No eye irritation

**Respiratory or skin sensitization**

**Skin sensitization**

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

**Respiratory sensitization**

Not classified due to lack of data.

**Product:**

| | | |
|---|---|---|
| Species | : | Guinea pig |
| Result | : | Does not cause skin sensitization. |

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Test Type | : | Maximization Test |
| Species | : | Guinea pig |
| Result | : | The product is a skin sensitizer, sub-category 1A. |

**S-metolachlor:**

| | | |
|---|---|---|
| Species | : | Guinea pig |
| Result | : | The product is a skin sensitizer, sub-category 1B. |

**benoxacor:**

| | | |
|---|---|---|
| Species | : | Guinea pig |
| Result | : | May cause sensitization by skin contact. |

**Germ cell mutagenicity**

Not classified due to lack of data.

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Germ cell mutagenicity - Assessment | : | Did not show mutagenic or teratogenic effects in animal experiments. |

**S-metolachlor:**

| | | |
|---|---|---|
| Germ cell mutagenicity - Assessment | : | Animal testing did not show any mutagenic effects. |

**benoxacor:**

| | | |
|---|---|---|
| Germ cell mutagenicity - Assessment | : | Animal testing did not show any mutagenic effects. |

**Carcinogenicity**

Not classified due to lack of data.

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Carcinogenicity - Assessment | : | This substance has been reported to cause tumors in certain animal species., These is no evidence that these findings are relevant to humans. |

**S-metolachlor:**

| | | |
|---|---|---|
| Carcinogenicity - Assessment | : | Animal testing did not show any carcinogenic effects. |

**benoxacor:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

**Reproductive toxicity**

Not classified due to lack of data.

**Components:**

**atrazine:**

Reproductive toxicity - Assessment : No toxicity to reproduction

**S-metolachlor:**

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

**benoxacor:**

Reproductive toxicity - Assessment : No toxicity to reproduction

**STOT-single exposure**

Not classified due to lack of data.

**STOT-repeated exposure**

May cause damage to organs (Heart, Kidney) through prolonged or repeated exposure.

**Components:**

**atrazine:**

Target Organs : Heart
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

**S-metolachlor:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**ethane-1,2-diol:**

Target Organs : Kidney
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

**benoxacor:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Aspiration toxicity**

Not classified due to lack of data.

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 4.5 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | LC50 (Americamysis): 5.4 mg/l<br>Exposure time: 96 h |
| Toxicity to algae/aquatic plants | : | ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.16 mg/l<br>Exposure time: 96 h<br><br>NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.011 mg/l<br>End point: Growth rate<br>Exposure time: 96 h |
| Toxicity to fish (Chronic toxicity) | : | (Oncorhynchus mykiss (rainbow trout)): 0.06 mg/l<br>Exposure time: 21 d |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Americamysis): 0.26 mg/l<br>Exposure time: 28 d<br><br>NOEC (Daphnia magna Straus (Water flea)): 0.04 mg/l<br>Exposure time: 21 d |
| Toxicity to microorganisms | : | EC50 (activated sludge): > 100 mg/l<br>Exposure time: 3 h |

**S-metolachlor:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 1.23 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Americamysis): 1.4 mg/l<br>Exposure time: 96 h |
| Toxicity to algae/aquatic plants | : | ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.077 mg/l<br>Exposure time: 96 h<br><br>NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.016 mg/l<br>End point: Growth rate<br>Exposure time: 96 h<br><br>EC50 (Lemna gibba (gibbous duckweed)): 0.023 mg/l<br>Exposure time: 14 d<br><br>NOEC (Lemna gibba (gibbous duckweed)): 0.0076 mg/l |

Exposure time: 14 d

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.03 mg/l
Exposure time: 35 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Americamysis): 0.13 mg/l
Exposure time: 28 d

M-Factor (Chronic aquatic toxicity) : 10

**ethane-1,2-diol:**

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 10,000 mg/l
Exposure time: 16 h

**amines, tallow alkyl, ethoxylated:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1 - 10 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (algae): > 1 - 10 mg/l
Exposure time: 72 h

NOEC (algae): 0.05 mg/l
Exposure time: 72 h

**benoxacor:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.9 mg/l
Exposure time: 96 h

LC50 (Ictalurus punctatus (channel catfish)): 1.4 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 17 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 13.5 mg/l
Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 0.22 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.31 mg/l
Exposure time: 32 d

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.016 mg/l
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chron- : NOEC (Daphnia magna (Water flea)): 0.354 mg/l
Exposure time: 21 d

ic toxicity)

**Persistence and degradability**

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable. |
| Stability in water | : | Remarks: Product is not persistent. |

**S-metolachlor:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable. |
| Stability in water | : | Degradation half life: 53 - 147 d<br>Remarks: Product is not persistent. |

**ethane-1,2-diol:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable. |

**amines, tallow alkyl, ethoxylated:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable. |

**benoxacor:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable. |

**Bioaccumulative potential**

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Does not bioaccumulate. |
| Partition coefficient: n-octanol/water | : | log Pow: 2.5 (77 °F / 25 °C) |

**S-metolachlor:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Does not bioaccumulate. |
| Partition coefficient: n-octanol/water | : | log Pow: 3.05 (77 °F / 25 °C) |

**benoxacor:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Does not bioaccumulate. |
| Partition coefficient: n-octanol/water | : | log Pow: 2.6 (77 °F / 25 °C) |

**Mobility in soil**

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Distribution among environmental compartments | : | Remarks: Highly mobile in soils |
| Stability in soil | : | Dissipation time: 38.5 d<br>Percentage dissipation: 50 % (DT50)<br>Remarks: Product is not persistent. |

**S-metolachlor:**

| | | |
|---|---|---|
| Distribution among environmental compartments | : | Remarks: Moderately mobile in soils |
| Stability in soil | : | Dissipation time: 12 - 46 d<br>Percentage dissipation: 50 % (DT50)<br>Remarks: Product is not persistent. |

**benoxacor:**

| | | |
|---|---|---|
| Distribution among environmental compartments | : | Remarks: Moderately mobile in soils |
| Stability in soil | : | Dissipation time: 0.9 - 5.3 d<br>Percentage dissipation: 50 % (DT50)<br>Remarks: Product is not persistent. |

**Other adverse effects**

**Components:**

**atrazine:**

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). |

**ethane-1,2-diol:**

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). |

**benoxacor:**

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB). |

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Do not dispose of waste into sewer.<br>Where possible recycling is preferred to disposal or incineration.<br>If recycling is not practicable, dispose of in compliance with local regulations. |
| Contaminated packaging | : | Empty remaining contents.<br>Triple rinse containers.<br>Empty containers should be taken to an approved waste handling site for recycling or disposal. |

Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

**UNRTDG**

| | | |
|---|---|---|
| UN number | : | UN 3082 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ATRAZINE, S-METOLACHLOR) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| Environmentally hazardous | : | yes |
| Remarks | : | This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids. |

**IATA-DGR**

| | | |
|---|---|---|
| UN/ID No. | : | UN 3082 |
| Proper shipping name | : | Environmentally hazardous substance, liquid, n.o.s. (ATRAZINE, S-METOLACHLOR) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | Miscellaneous |
| Packing instruction (cargo aircraft) | : | 964 |
| Packing instruction (passenger aircraft) | : | 964 |
| Environmentally hazardous | : | yes |
| Remarks | : | This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids. |

**IMDG-Code**

| | | |
|---|---|---|
| UN number | : | UN 3082 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ATRAZINE, S-METOLACHLOR) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| EmS Code | : | F-A, S-F |
| Marine pollutant | : | yes |
| Remarks | : | This product can be subject to exemptions when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a net mass of 5 kg or less for solids. |

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**
Not regulated as a dangerous good
Remarks : Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY 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 as required on the pesticide label:
Caution
Harmful if swallowed.
Harmful if absorbed through skin.
Causes moderate eye irritation.
Avoid contact with skin, eyes or clothing.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Specific target organ toxicity (single or repeated exposure)

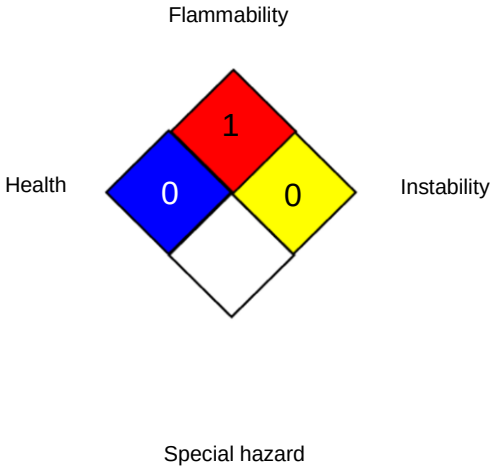
**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

| | | |
|---|---|---|
| atrazine | 1912-24-9 | >= 30 - < 50 % |
| ethane-1,2-diol | 107-21-1 | >= 1 - < 5 % |

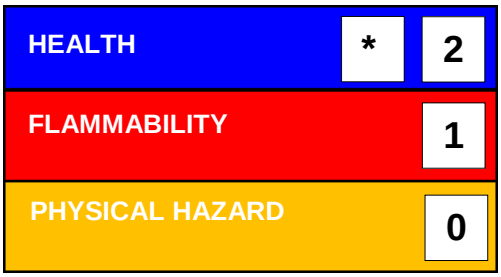
## SECTION 16. OTHER INFORMATION

**Further information**

**NFPA 704:**




**HMIS® IV:**




HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

**Full text of other abbreviations**

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| NIOSH REL | : | USA. NIOSH Recommended Exposure Limits |
| OSHA P0 | : | USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values) |
| Syngenta | : | Syngenta Occupational Exposure Limits |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| ACGIH / STEL | : | Short-term exposure limit |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| OSHA P0 / TWA | : | 8-hour time weighted average |
| OSHA P0 / C | : | Ceiling limit |
| Syngenta / TWA | : | Time weighted average |

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable

Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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