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#### 1. Identification

### Product identifier used on the label

# **Detail powered by Kixor Herbicide**

#### Recommended use of the chemical and restriction on use

Recommended use\*: crop protection product, herbicide

#### Details of the supplier of the safety data sheet

Company:

BASF CORPORATION 100 Park Avenue Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

# **Emergency telephone number**

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

# Other means of identification

Substance number: 574155

Registration number: EPA Registration number: 7969-297

Synonyms: Saflufenacil

#### 2. Hazards Identification

### According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

#### Classification of the product

Repr. 2 (unborn child) Reproductive toxicity

Aquatic Acute 1 Hazardous to the aquatic environment - acute Aquatic Chronic 1 Hazardous to the aquatic environment - chronic

#### Label elements

<sup>\*</sup> The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Pictogram:



Signal Word: Warning

Hazard Statement:

H361 Suspected of damaging the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.

P280 Wear protective gloves, protective clothing and eye protection or face

protection.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and

understood.

Precautionary Statements (Response): P391 Collect spillage.

P308 + P313 IF exposed or concerned: Get medical attention.

Precautionary Statements (Storage): P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

# 3. Composition / Information on Ingredients

# According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Saflufenacil

CAS Number: 372137-35-4 Content (W/W): 29.74 % Synonym: Saflufenacil

#### 4. First-Aid Measures

#### **Description of first aid measures**

#### General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

#### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

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#### If on skin:

Wash thoroughly with soap and water

#### If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

#### If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

# Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

## Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no

known specific antidote.

# 5. Fire-Fighting Measures

# **Extinguishing media**

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

#### Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, Hydrogen chloride, hydrogen fluoride, sulfur oxides, nitrogen oxides, halogenated compounds, silica compounds

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

#### Advice for fire-fighters

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

#### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

#### **Environmental precautions**

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

#### Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according

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to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

# 7. Handling and Storage

#### Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

#### Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight. Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Protect from temperatures below: -5 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

# 8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

No occupational exposure limits known.

#### Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

#### Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

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#### Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

#### Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

#### Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

#### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

# General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

# 9. Physical and Chemical Properties

Form: liquid

Odour: faint odour, fruity

Odour threshold: Not determined due to potential health hazard by inhalation.

Colour: white approx. 4 - 6 (approx. 20 °C)

(as aqueous suspension)

boiling temperature: approx. 100 °C

Information applies to the solvent.

Sublimation point: No applicable information available. Flash point: No flash point - Measurement made

up to the boiling point.

Flammability: not applicable

Lower explosion limit: As a result of our experience with this

product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

Upper explosion limit: As a result of our experience with this

product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

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Autoinoltion 440.00 /Directive

Autoignition: 443 °C (Directive

92/69/EEC, A.15)

Vapour pressure: approx. 23 hPa

(20 °C)

Information applies to the solvent.

Density: 9.6 Lb/USg

(68°F)

Relative density: No applicable information available.

Vapour density: not applicable

Partitioning coefficient noctanol/water (log Pow):

The statements are based on the properties of the individual

components.

No applicable information available.

Thermal decomposition: No decomposition if stored and handled as

prescribed/indicated.

Viscosity, dynamic: 33 mPa.s

(20°C)

Viscosity, kinematic: No applicable information available.

Solubility in water: dispersible

Solubility (quantitative): No applicable information available. Solubility (qualitative): No applicable information available.

Evaporation rate: not applicable

Other Information: The product has not been tested. The statement has been

derived from substances/products of a similar structure or

composition.

# 10. Stability and Reactivity

# Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

not fire-propagating (Directive 2004/73/EC, A.21)

#### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

#### Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

#### **Conditions to avoid**

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

#### Incompatible materials

strong bases, strong acids, strong oxidizing agents

# Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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# 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

#### **Acute Toxicity/Effects**

#### Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Relatively nontoxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

#### Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg No mortality was observed.

#### Inhalation

Type of value: LC50

Species: rat Value: > 5.5 mg/l Exposure time: 4 h An aerosol was tested. No mortality was observed.

#### Derma

Type of value: LD50

Species: rat

Value: > 5,000 mg/kg No mortality was observed.

#### Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

#### **Sensitization**

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

modified Buehler test Species: guinea pig Result: Non-sensitizing.

#### Aspiration Hazard

No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

### **Chronic Toxicity/Effects**

### Repeated dose toxicity

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Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organization was observed after repeated administration to animals.

#### Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

#### Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

#### Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

#### **Teratogenicity**

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil

Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

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#### Other Information

Misuse can be harmful to health.

#### 12. Ecological Information

### **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

#### Toxicity to fish

Information on: saflufenacil

LC50 (96 h) > 96.8 mg/l, Pimephales promelas (OECD Guideline 203, static)

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#### Aquatic invertebrates

Information on: saflufenacil

EC50 (96 h) 8.0 mg/l, Daphnia magna (static)

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#### Aquatic plants

Information on: saflufenacil

EC50 (96 h) 0.113 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

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#### Chronic toxicity to fish

Information on: saflufenacil

No observed effect concentration (33 d) >= 10 mg/l, Pimephales promelas

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#### Chronic toxicity to aquatic invertebrates

Information on: saflufenacil

No observed effect concentration (21 d) 2.5 mg/l, Daphnia magna

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#### Assessment of terrestrial toxicity

With high probability not acutely harmful to terrestrial organisms.

# Persistence and degradability

Assessment biodegradation and elimination (H2O)

Information on: saflufenacil

Not readily biodegradable (by OECD criteria).

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#### Bioaccumulative potential

#### Assessment bioaccumulation potential

Information on: saflufenacil

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

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#### Mobility in soil

#### Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

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# 13. Disposal considerations

## Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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#### Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

#### RCRA:

This product is not regulated by RCRA.

# 14. Transport Information

#### Land transport

**USDOT** 

Not classified as a dangerous good under transport regulations

Sea transport

**IMDG** 

Hazard class: 9 Packing group: III

ID number: UN 3082 Hazard label: 9, EHSM Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains SAFLUFENACIL)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III

ID number: UN 3082 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains SAFLUFENACIL)

# **Further information**

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

# 15. Regulatory Information

# **Federal Regulations**

### Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

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**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

#### **State regulations**

State RTKCAS NumberChemical namePA57-55-6Propylene glycolNJ57-55-6Propylene glycol

#### Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

# **BASF Risk Assessment, CA Prop. 65:**

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

### Labeling requirements under FIFRA

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 workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

**CAUTION:** 

KEEP OUT OF REACH OF CHILDREN.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

HARMFUL IF SWALLOWED.

HARMFUL IF ABSORBED THROUGH SKIN.

May cause moderate but temporary irritation to the eyes.

Avoid contact with the skin, eyes and clothing.

Avoid inhalation of mists/vapours.

Wash thoroughly after handling.

#### 16. Other Information

### SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2022/06/07

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING

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