1. Identification

Product identifier used on the label

**Ilevo Seed Treatment**

Recommended use of the chemical and restriction on use

Recommended use*: Seed coating

* 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.

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: 981853

Synonyms: Fluopyram

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2. Hazards Identification


Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

Hazards not otherwise classified

Labeling of special preparations (GHS):
May produce an allergic reaction. Contains: 5-chloro-2-methyl-2H-isothiazol-3-one
The substance may cause sensitization of the skin in particularly sensitive individuals. Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

3. Composition / Information on Ingredients


Fluopyram
- CAS Number: 658066-35-4
- Content (W/W): 40.02 %
- Synonym: Benzamide, N-[2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl]-2-(trifluoromethyl)-

5-chloro-2-methyl-2H-isothiazol-3-one
- CAS Number: 26172-55-4
- Content (W/W): < 0.1%
- Synonym: 5-Chloro-2-methyl-4-isothiazolin-3-one; 5-Chloro-2-methyl-2H-isothiazol-3-one

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.

If on skin:
Wash thoroughly with soap and water

If in eyes:
Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:
Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

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
5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, Hydrogen chloride, hydrogen fluoride, nitrogen oxides, sulfur oxides, silica compounds, halogenated compounds

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.

Further information:
Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

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 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 against heat.
Protect contents from the effects of light. 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. 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 at temperature not exceeding 40 °C. Protect product from freezing temperatures.

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.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:
Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. 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:
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.
## 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined due to potential health hazard by inhalation.</td>
</tr>
<tr>
<td>Colour</td>
<td>off-white</td>
</tr>
<tr>
<td>pH value</td>
<td>The product has not been tested.</td>
</tr>
<tr>
<td>Melting point</td>
<td>119 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>318 - 321 °C The substance / product decomposes. The values mentioned are those of the active ingredient.</td>
</tr>
<tr>
<td>Flash point</td>
<td>A flash point determination is unnecessary due to the high water content.</td>
</tr>
<tr>
<td>Flammability</td>
<td>not applicable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>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.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>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.</td>
</tr>
<tr>
<td>Autoignition</td>
<td>Based on the composition, the product does not ignite</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>approx. 0.0000012 hPa (20 °C) The values mentioned are those of the active ingredient.</td>
</tr>
<tr>
<td>Density</td>
<td>approx. 1.22 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>not applicable</td>
</tr>
<tr>
<td>Partitioning coefficient n-octanol/water (log Pow):</td>
<td>not applicable</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No decomposition if stored and handled as prescribed/indicated.</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>approx. 80 - 120 mPa.s (20 °C)</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>dispersible</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not applicable</td>
</tr>
<tr>
<td>Other Information</td>
<td>If necessary, information on other physical and chemical parameters is indicated in this section.</td>
</tr>
</tbody>
</table>

## 10. Stability and Reactivity

**Reactivity**

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

Oxidizing properties:
not fire-propagating
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
See SDS section 7 - Handling and storage.

Incompatible materials
strong acids, strong bases, 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.

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: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been tested. The statement has been derived from the properties of the individual components.

Oral
Type of value: ATE
Value: > 5,000 mg/kg

Information on: FLUOPYRAM TECHNICAL
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg
No mortality was observed.
-----------------------------

Inhalation
Type of value: ATE
Value: > 20 mg/l
Determined for vapor

Type of value: ATE
Value: > 5 mg/l
Determined for mist
Information on: FLUOPYRAM TECHNICAL
Type of value: LC50
Species: rat
Value: > 5.11 mg/l
Exposure time: 4 h
An aerosol was tested.
No mortality was observed.
----------------------------------

Dermal
Type of value: ATE
Value: > 5,000 mg/kg

Information on: FLUOPYRAM TECHNICAL
Type of value: LD50
Species: rat
Value: > 2,000 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.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from the properties of the individual components.

Skin

Information on: FLUOPYRAM TECHNICAL
Species: rabbit
Result: non-irritant
----------------------------------

Eye

Information on: FLUOPYRAM TECHNICAL
Species: rabbit
Result: non-irritant
----------------------------------

Sensitization
Assessment of sensitization: There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: FLUOPYRAM TECHNICAL
Mouse Local Lymph Node Assay (LLNA)
Species: mouse
Result: Non-sensitizing.
Method: OECD Guideline 429
----------------------------------

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**
Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

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

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

*Information on: FLUOPYRAM TECHNICAL*
Assessment of carcinogenicity: In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans.

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

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

*Information on: FLUOPYRAM TECHNICAL*
Assessment of teratogenicity: Causes developmental effects in animals at high, maternally toxic doses.

**Other Information**
Misuse can be harmful to health.

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**12. Ecological Information**

**Toxicity**

**Aquatic toxicity**
Assessment of aquatic toxicity: Toxic to aquatic life with long lasting effects. The product has not been tested. The statement has been derived from the properties of the individual components.

**Toxicity to fish**

*Information on: FLUOPYRAM TECHNICAL*
LC50 (96 h) > 2 mg/l, Oncorhynchus mykiss
The value meets the highest applied test concentration. No mortality was observed.
Aquatic invertebrates

Information on: FLUOPYRAM TECHNICAL
EC50 (48 h) > 20 mg/l, Daphnia magna
No toxic effects occur within the range of solubility.

Aquatic plants

Information on: FLUOPYRAM TECHNICAL
EC50 (72 h) 8.9 mg/l (growth rate), Pseudokirchneriella subcapitata
No observed effect concentration (72 h) 1.46 mg/l (growth rate), Pseudokirchneriella subcapitata
EC50 (7 d) 2.51 mg/l (growth rate), Lemna gibba (static)
No observed effect concentration (7 d) 0.256 mg/l (growth rate), Lemna gibba (static)

Chronic toxicity to fish

Information on: FLUOPYRAM TECHNICAL
No observed effect concentration (33 d) 0.135 mg/l, Pimephales promelas (Flow through.)

Chronic toxicity to aquatic invertebrates

Information on: FLUOPYRAM TECHNICAL
No observed effect concentration (21 d) 1.22 mg/l, Daphnia magna (semistatic)

Persistence and degradability

Assessment biodegradation and elimination (H2O)
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

Information on: FLUOPYRAM TECHNICAL
Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

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

Bioaccumulation potential

Information on: FLUOPYRAM TECHNICAL

Bioconcentration factor: 18

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: FLUOPYRAM TECHNICAL

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

Additional information
Other ecotoxicological advice:
Do not discharge product into the environment without control.

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.

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.

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 FLUOPYRAM)

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 FLUOPYRAM)
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:
Crop Protection TSCA, US released / exempt
Chemical TSCA, US blocked / not listed

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

State regulations

<table>
<thead>
<tr>
<th>State RTK</th>
<th>CAS Number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NJ</td>
<td>57-55-6</td>
<td>Propylene glycol</td>
</tr>
<tr>
<td>PA</td>
<td>57-55-6</td>
<td>Propylene glycol</td>
</tr>
</tbody>
</table>

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

WARNING: This product can expose you to chemicals including NAPHTHALENE, which is known to the State of California to cause cancer, and TOLUENE, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

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.
HARMFUL IF SWALLOWED.
Wash thoroughly after handling.

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2022/03/30
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.

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