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1. Product and Company Identification

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

24 Hour Emergency Response Information CHEMTREC: 1-800-424-9300 BASF HOTLINE: 1-800-832-HELP (4357)

Substance number: Synonyms: 000000390011 fluxapyroxad + pyraclostrobin

2. Hazards Identification

Emergency overview

CAUTION: KEEP OUT OF REACH OF CHILDREN. May be fatal if swallowed. Avoid contact with the skin, eyes and clothing.

See Product Label for additional precautionary statements.

State of matter: liquid Colour: off-white Odour: faint odour, fruity

Potential health effects

Primary routes of exposure:

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

Acute toxicity:

Slightly toxic after single ingestion. Relatively nontoxic after short-term inhalation. Relatively nontoxic after short-term skin contact.

Irritation / corrosion:

May cause slight but temporary irritation to the eyes. May cause moderate irritation to the skin.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

Potential environmental effects

Aquatic toxicity:

Very toxic (acute effect) to aquatic invertebrates. Very toxic (acute effect) to fish. Acutely toxic for aquatic plants.

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3. Composition / Information on Ingredients

CAS Number 907204-31-3 175013-18-0 Content (W/W) 14.33 % 28.58 % 57.09 % Chemical name Fluxapyroxad pyraclostrobin Proprietary ingredients

4. First-Aid Measures

General advice:

Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Rinse mouth thoroughly with water, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Flash point:

Autoignition: 535 °C Lower explosion limit: Upper explosion limit: No flash point - Measurement made up to the boiling point. (Directive 92/69/EEC, A.15) not determined not determined

Suitable extinguishing media:

water spray, carbon dioxide, foam, dry powder

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides, chlorides, organochloric compounds, halogenated hydrocarbons

The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. 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.

Safety Data Sheet

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6. Accidental release measures

Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

Environmental precautions:

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

Contain contaminated water/firefighting water.

Cleanup:

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

Handling

General advice:

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. 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. 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.

Storage

General advice:

Keep away from heat. Protect from direct sunlight. Store protected against freezing.

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

Temperature tolerance

Protect from temperatures below: 0 °C

The product can crystallize below the limit temperature.

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 and Personal Protection

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

Advice on system design:

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

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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) 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: Odour: Colour:	suspension faint odour, fruity off-white					
pH value:	7.2		(pH Meter) substance)	(measured	with the	
Boiling point:	100 °C	(measured	d)			
Density:	1.164 g/cm3	(20 °C)	(OECD Gu	ideline 109)		
Relative density:	1.164	(20 °C)	(calculated	i)		
Vapour density:		not dete	ermined	¹ к		
Partitioning coefficient n-octanol/water (log Pow):		not applicable				
Viscosity, dynamic:	39 mPa.s	(40 °C)	(OECD 11	4)		
Viscosity, kinematic:	33.9 mm2/s	(40 °C)	•	,		
Solubility in water:		dispersi	ible			

10. Stability and Reactivity

Conditions to avoid:

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

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

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Hazardous reactions:

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

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition: 95 °C, 2.5 K/min (DSC (OECD 113))

165 °C, 2.5 K/min (DSC (OECD 113))

270 °C, 2.5 K/min (DSC (OECD 113))

No decomposition if stored and handled as prescribed/indicated. Possible thermal decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrocarbons Stable at ambient temperature. If product is heated above decomposition temperature, toxic vapours will be released.

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

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50 Species: rat (female) Value: > 500 - < 2,000 mg/kg (OECD Guideline 423)

Inhalation:

Type of value: LC50 Species: rat (male/female) Value: > 8.11 mg/I (OECD Guideline 403) Exposure time: 4 h An aerosol with respiratory particles was tested.

Dermal:

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg (OECD Guideline 402) No mortality was observed.

Irritation / corrosion

Skin:

Species: rabbit Result: non-irritant Method: OECD Guideline 404

Eye:

Species: rabbit Result: non-irritant Method: OECD Guideline 405

Sensitization:

Buehler test Species: guinea pig Result: Skin sensitizing effects were not observed in animal studies. Method: OECD Guideline 406

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Genetic toxicity

Information on: pyraclostrobin No mutagenic effect was found in various tests with microorganisms and mammalian cell culture.

Information on: Fluxapyroxad

Carcinogenicity

Information on: Fluxapyroxad Information on: pyraclostrobin In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Information on: pyraclostrobin The results of animal studies gave no indication of a fertility impairing effect. Information on: Fluxapyroxad

Development:

Information on: pyraclostrobin No indications of a developmental toxic / teratogenic effect were seen in animal studies. Information on: Fluxapyroxad

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Information on: pyraclostrobin Acute:

Cyprinus carpio/LC50 (96 h): > 0.0121 - < 0.0258 mg/l Lepomis macrochirus/LC50 (96 h): > 0.0196 - < 0.0335 mg/l Oncorhynchus mykiss/LC50 (96 h): 0.00616 mg/l

Information on: Fluxapyroxad Acute: Fish test acute semistatic Cyprinus carpio/LC50 (96 h): 0.29 mg/l OECD Guideline 203 static Oncorhynchus mykiss/LC50 (96 h): 0.546 mg/l OECD Guideline 203 static Lepomis macrochirus/LC50 (96 h): 1.15 mg/l OECD Guideline 203 static Pimephales promelas/LC50 (96 h): 0.466 mg/l

Aquatic invertebrates

Information on: pyraclostrobin Acute: Daphnia magna/EC50 (48 h): 0.0157 mg/l

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Information on: Fluxapyroxad

Acute: OECD Guideline 202, part 1 static Daphnia magna/EC50 (48 h): 7.07 mg/l

Aquatic plants

Toxicity to aquatic plants: OECD Guideline 201 static green algae/EC50 (72 h): 2.8 mg/l

Other adverse effects:

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.

RCRA:

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignents. This product is not regulated by RCRA.

14. Transport Information

Land transport USDOT	
	Not classified as a dangerous good under transport regulations
a second second	
Sea transport IMDG	
Hazard class: Packing group: ID number: Hazard label: Marine pollutant: Proper shipping name:	9 III UN 3082 9, EHSM YES ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PYRACLOSTROBIN, FLUXAPYROXAD)
Air transport IATA/ICAO	
Hazard class:	9

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Packing group: ID number: Hazard label: Proper shipping name:

UN 3082 9, EHSM ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PYRACLOSTROBIN, FLUXAPYROXAD)

15. Regulatory Information

Federal Regulations

Registration status: Chemical	TSCA, US	blocked / not listed
Crop Protection	TSCA, US	released / exempt
OSHA hazard catego	rv: N	o data available.:

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EPCRA 311/312 (Hazard categories):

Acute; Chronic

State regulations

CA Prop. 65:

CA PROP 65: An assessment has determined that there is no significant risk present., PROP 65 warning(s) are not required for this product.

16. Other Information

Refer to product label for EPA registration number.

Recommended use: crop protection product fungicide

NFPA Hazard codes:

Health : 1 Fire: 1 Reactivity: 1 Special:

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.

MSDS Prepared by: BASF NA Product Regulations msds@basf.com MSDS Prepared on: 2012/04/19

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