

Safety Data Sheet

STAMINA F3 CEREALS SEED TREATMENT

Revision date : 2014/03/14

Version: 2.0

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(30520096/SDS_CPA_US/EN)

1. Identification

Product identifier used on the label

STAMINA F3 CEREALS SEED TREATMENT

Recommended use of the chemical and restriction on use

Recommended use: fungicide

* The "Recommended use" identified for this product is provided solely to comply with a US 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

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 473768
EPA Register number: 7969-322
Synonyms: Pyraclostrobin + Triticonazole + Metalaxyl

2. Hazards Identification

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

Classification of the product

Skin Sens. 1 Skin sensitization

Label elements (Emergency overview)

Pictogram:

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Signal Word:
Warning

Hazard Statement:
H317 May cause an allergic skin reaction.

Precautionary Statements (Prevention):
P280 Wear protective gloves.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):
P333 + P311 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P303 + P352 IF ON SKIN (on hair): Wash with plenty of soap and water.
P362 Take off contaminated clothing and wash before reuse.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 12 % dermal

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 1 % oral

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 13 % Inhalation - vapour

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 13 % Inhalation - mist

Emergency overview

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAUTION:
HARMFUL IF SWALLOWED.
May cause moderate but temporary irritation to the eyes.
Avoid contact with the skin, eyes and clothing.

3. Composition / Information on Ingredients

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

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
175013-18-0	1.59 %	Pyraclostrobin
57837-19-1	0.93 %	metalaxyl
131983-72-7	1.59 %	Triticonazole

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According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
175013-18-0	1.59 %	Pyraclostrobin
131983-72-7	1.59 %	Triticonazole
57837-19-1	0.93 %	metalaxyl
	95.89 %	Proprietary ingredients

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. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

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:

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:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

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

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Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides

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:

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

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

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. Contain contaminated water/firefighting water.

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 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:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy.

Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear.

Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge.

Electrostatic discharge may cause ignition.

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Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: 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: 0 °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.

Components with occupational exposure limits

Triticonazole	OSHA	PEL 200 ppm 260 mg/m3 ;
	PEL	
	ACGIH	Skin Designation ; STEL value 250 ppm ; TWA
	TLV	value 200 ppm ;

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:

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.

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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:	suspension	
Odour:	faint odour, sweetish	
Odour threshold:	No data available.	
Colour:	red	
pH value:	6.8	
Boiling point:	100 °C	
Flash point:		No flash point - Measurement made up to the boiling point.
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.
Autoignition:	409 °C	
Density:	1.071 g/cm ³ 8.9379 Lb/USg	(20 °C) (68 °F)
Vapour density:		not determined
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Self-ignition temperature:		not self-igniting
Thermal decomposition:	carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide	
	Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.	
Viscosity, dynamic:		not determined
Solubility in water:		dispersible
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Reactivity

Additional information:

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

Oxidizing properties:
Not an oxidizer.

Chemical stability

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

Possibility of hazardous reactions

Hazardous reactions:
The product is chemically stable.
Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

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

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

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:
Possible thermal decomposition products:
carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide
Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

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 (female)

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Value: > 2,000 mg/kg

Inhalation

Type of value: LC50
Species: rat (male/female)
Value: > 5.8 mg/l
Exposure time: 4 h

Dermal

Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg

Irritation / corrosion

Assessment of irritating effects:
May cause slight irritation to the skin. May cause slight but temporary irritation to the eyes.

Skin

Species: rabbit
Result: non-irritant

Eye

Species: rabbit
Result: non-irritant

Sensitization

Assessment of sensitization:
Caused skin sensitization in animal studies.
Mouse Local Lymph Node Assay (LLNA)
Species: mouse
Result: sensitizing

Chronic Toxicity/Effects

Genetic toxicity

Information on: Pyraclostrobin

Assessment of mutagenicity: No mutagenic effect was found in various tests with microorganisms and mammalian cell culture. The substance was not mutagenic in a test with mammals.

Information on: Triticonazole

Assessment of mutagenicity: No mutagenic effect was found in various tests with microorganisms and mammalian cell culture. The substance was not mutagenic in a test with mammals.

Information on: metalaxyl

Assessment of mutagenicity: No mutagenic effects reported.

Carcinogenicity

Information on: Pyraclostrobin

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

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

Assessment of carcinogenicity: 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

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.
Information on: Triticonazole

Assessment of reproduction toxicity: Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals.
Information on: metalaxyl

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

Information on: Pyraclostrobin

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.
Information on: Triticonazole

Assessment of teratogenicity: The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.
Information on: metalaxyl

Assessment of teratogenicity: Causes developmental effects in animals at high, maternally toxic doses.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

12. Ecological Information

Toxicity

Aquatic toxicity

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Assessment of aquatic toxicity:
Very toxic (acute effect) to aquatic organisms.

Toxicity to fish

Information on: *Pyraclostrobin*

LC50 (96 h) > 0.0121 - < 0.0258 mg/l, *Cyprinus carpio* (OPP 72-1 (EPA-Guideline), static)

LC50 (96 h) > 0.0131 - < 0.0299 mg/l, *Lepomis macrochirus* (EPA 72-1, static)

The statement of the toxic effect relates to the analytically determined concentration.

LC50 (96 h) 0.00616 mg/l, *Oncorhynchus mykiss* (EPA 72-1, Flow through.)

Information on: *Triticonazole*

LC50 (96 h) > 3.6 mg/l, *Oncorhynchus mykiss*

Information on: *metalaxyl*

LC50 (96 h) > 100 mg/l, *Oncorhynchus mykiss*

LC50 (96 h) > 100 mg/l, *Cyprinus carpio*

Aquatic invertebrates

Information on: *Pyraclostrobin*

EC50 (48 h) 0.016 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Information on: *Triticonazole*

EC50 (48 h) 9.0 mg/l, *Daphnia magna*

Information on: *metalaxyl*

LC50 29 mg/l, *Daphnia magna*

Aquatic plants

Information on: *Pyraclostrobin*

EC50 (96 h) > 0.843 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201)

Information on: *Triticonazole*

EC50 (120 h) 0.31 mg/l, *Skeletonema costatum*

No observed effect concentration (120 h) 0.031 mg/l, *Skeletonema costatum*

Information on: *metalaxyl*

EC50 1 mg/l 140 ppm, *Selenastrum* sp.

EC50 92 ppm, *Lemna minor*

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

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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 assignments. 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 1,2-PROPYLENEGLYCOL)

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 1,2-PROPYLENEGLYCOL)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Acute; Chronic

State regulations

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

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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:
HARMFUL IF SWALLOWED.
May cause moderate but temporary irritation to the eyes.
Avoid contact with the skin, eyes and clothing.

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2014/03/14

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 WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

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