Safety Data Sheet

INSPIRE® XT

Date: 11/27/2018
Replaces: 3/20/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **INSPIRE® XT**
Product No.: A8122B
Use: Fungicide
Manufacturer: Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro NC 27419

Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications:
Skin Corrosion/Irritation: Category 2
Skin Sensitizer: Category 1B
Reproductive Toxicity: Category 2
Aspiration Hazard: Category 1
Flammable Liquid: Category 3
Eye Damage/Irritation: Category 1

Signal Word (OSHA): Danger

Hazard Statements:
Flammable liquid and vapor
May be fatal if swallowed and enters airways
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
Suspected of damaging fertility or the unborn child

Hazard Symbols:

Precautionary Statements:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear eye protection.

If on skin or hair: Take off immediately all contaminated clothing. Rinse skin with water.

If exposed or concerned: Get medical advice/attention.

Immediately call a poison center, doctor or Syngenta.

Keep away from heat, sparks, open flames, hot surfaces. No smoking.

Wash hands and face thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves, protective clothing, eye protection.

If swallowed: Immediately call a poison center, doctor or Syngenta.

If on skin: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

See Section 4 First Aid Measures.

Do NOT induce vomiting.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use dry chemical, foam or CO2 for extinction.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Naphthalene	Naphthalene	91-20-3	<4.0%
Isobutanol	Isobutanol	78-83-1	<3%
Surfactant	Surfactant	Trade Secret	<2.5%
Petroleum Solvent	Petroleum Solvent	68477-31-6	<50%
Emulsifier	Emulsifier	Trade Secret	<10%
Calcium dodecylbenzene sulfonate	Calcium dodecylbenzene sulfonate	26264-06-2	<3%
1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-	Difenoconazole	119446-68-3	22.8%
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	Propiconazole	60207-90-1	22.8%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Eye irritation

Skin irritation

Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into

compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Naphthalene	10 ppm TWA	10 ppm TWA (skin)	10 ppm TWA	NIOSH
Isobutanol	100 ppm TWA	50 ppm TWA	50 ppm TWA	Manufacturer
Surfactant	Not Established	Not Established	Not Established	Manufacturer
Petroleum Solvent	Not Established	Not Established	100 mg/m³ (17 ppm)	Manufacturer
Emulsifier	Not Established	Not Established	Not Established	Manufacturer
Calcium dodecylbenzene sulfonate	Not Established	Not Established	Not Established	Not Applicable
Difenoconazole	Not Established	Not Established	5 mg/m³ TWA	Manufacturer
Propiconazole	Not Established	Not Established	5 mg/m³ TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to

comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange to red liquid

Odor: Not determined

Odor Threshold: Not Available

pH: 6 - 10 @ 1% w/v

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: > 338 °F

Flash Point (Test Method): 136°F

Flammable Limits (% in Air): Not Available

Flammability: Combustible liquid

Vapor Pressure: Difenoconazole 2.5 x 10(-10) mmHg @ 77°F (25°C)
Propiconazole 4.2 x 10(-7) mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 1.07 - 1.11 g/cm³ @ 68°F (20°C)

Solubility (ies): Difenoconazole 15 mg/l @ 77°F (25°C)
Propiconazole 0.1 g/l @ 68°F (20°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: Not Available

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Skin irritation

Delayed, immediate and chronic effects of exposure: Developmental toxicity, Eye irritation, Skin irritation, Allergic skin reaction

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Female Rat) :	>2000 - < 3000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 4000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 2.94 mg/l air - 4 hours
Eye Contact:	Highly Irritating (Rabbit)	
Skin Contact:	Highly Irritating (Rabbit)	
Skin Sensitization:	Sensitizing (Guinea Pig)	

Reproductive/Developmental Effects

Difenoconazole: None observed.

Propiconazole: Some evidence of adverse effects on development, based on animal experiments.

Chronic/Subchronic Toxicity Studies

Difenoconazole: Kidney and liver effects at high doses (>5000 ppm; rats); Eye effects in dogs at high dose levels.

Propiconazole: None observed.

Carcinogenicity

Difenoconazole: Did not show carcinogenic effects in animal experiments.

Propiconazole: Increased hepatocellular adenomas, combined adenomas/carcinomas, and hepatocellular carcinomas observed in male mice in a chronic oral feeding study. However, animals in the high dose group for this study showed excessive toxicity; furthermore, the high dose exceeded the Maximum Tolerated Dose determined in the 90-day range finding study. No treatment-related tumors were seen in female mice in this mouse chronic feeding study. No tumors were noted in a chronic rat study.

Chemical Name	NTP/IARC/OSHA Carcinogen
Naphthalene	See "Toxicity", Sec. 11
Isobutanol	No
Surfactant	No
Petroleum Solvent	No
Emulsifier	No
Calcium dodecylbenzene sulfonate	No
1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-	No
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	No

Other Toxicity Information

None

Toxicity of Other Components

Calcium dodecylbenzene sulfonate

A severe eye irritant. May be mildly irritating to skin and mucous membranes. Low acute inhalation and oral

toxicity.

Emulsifier

May be irritating to mouth, upper digestive tract, skin and eyes.

Isobutanol

High concentrations may result in dizziness, confusion and signs of intoxication. May cause irritation to eye, skin or muscous membranes.

Naphthalene

Exposure to naphthalene can cause cataracts, liver damage, kidney failure, respiratory failure, hematuria, anemia, damage to red blood cells, leukocytosis, or coma.
Carcinogen Status:
NTP: Anticipated Carcinogen
IARC: Group 2B Possible Human Carcinogen

Petroleum Solvent

Repeated exposure may cause skin dryness or cracking. If swallowed, may be aspirated and cause lung damage. May be irritating to the eyes, nose, throat and lungs. May cause central nervous system depression.

Surfactant

Exposure can result in eye and skin irritation. Harmful if swallowed.

Target Organs

Active Ingredients

Difenoconazole:	Brain, liver, kidney, gastrointestinal tract
Propiconazole:	Liver

Inert Ingredients

Calcium dodecylbenzene sulfonate:	Eye, skin
Emulsifier:	Eye, skin, upper digestive tract, mucous membranes
Isobutanol:	CNS, skin, eye
Naphthalene:	Eye, liver, kidney, respiratory tract, blood, CNS
Petroleum Solvent:	Skin, eye, respiratory tract, CNS
Surfactant:	Eye, skin

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Difenoconazole:

Fish (Rainbow Trout) 96-hour LC50 1.1 mg/l

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.77 mg/l

Green Algae 72-hour EbC50 0.032 mg/

Propiconazole:

Fish (Rainbow Trout) 96-hour LC50 0.83 ppm

Invertebrate (Water Flea) 48-hour EC50 3.2 ppm

Green Algae 9-day EC50 0.72 ppm

Bird (Mallard Duck) 14-day LD50 2510 mg/kg

Environmental Fate

Difenoconazole:

The information presented here is for the active ingredient, difenoconazole.
Stable in soil and water. Low to moderate mobility in soil. Sinks in water (after 24 h).

Propiconazole:

The information presented here is for the active ingredient, propiconazole.
Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Packages smaller than 119 gallons: Not regulated. (Shipped under domestic reclassification per 49 CFR §173.120(b))
Packages larger than 119 gallons:
Proper Shipping Name: Combustible Liquid, N.O.S. (Petroleum Naphtha)
Hazard Class: Combustible Liquid
Identification Number: NA 1993
Packing Group: PG III

Comments

Water Transport - International
Proper Shipping Name: Flammable Liquid, N.O.S. (Petroleum Naphtha), Marine Pollutant, (Difenoconazole/Propiconazole)
Hazard Class: Class 3
Identification Number: UN 1993
Packing Group: PG III

Air Transport
Proper Shipping Name: Flammable Liquid, N.O.S. (Petroleum Naphtha)
Hazard Class: Class 3
Identification Number: UN 1993
Packing Group: PG III

15. REGULATORY INFORMATION

Pesticide Registration:

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:

Danger: Corrosive. Causes irreversible eye damage. Do not get in eyes, on skin or on clothing. Causes skin irritation. Harmful if swallowed or absorbed through skin. Wear protective eyewear such as goggles, face shield, or safety glasses. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):

100-1312

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Section 313 Toxic Chemicals: Propiconazole 22.8% (CAS No. 60207-90-1)
Naphthalene <4.0% (CAS No. 91-20-3)

CERCLA/SARA 304 Reportable Quantity (RQ):
Report product spills > 2500 gal. (based on naphthalene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261):
Not Applicable

TSCA Status:
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	2	Health:	2
Flammability:	2	Flammability:	2
Instability:	0	Reactivity:	0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: D,S

For non-emergency questions about this product call:

1-800-334-9481

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Section(s) Revised: 2,4,11

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.