



Joust® Fungicide
Safety Data Sheet
{Reserved}

Issue Date: 2023-05-03

Supersedes Date: NA

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Joust® Fungicide
PMRA PCP.No.: 34800
Product Type: Fungicide

Supplier: Nufarm Agriculture Inc
5101, 333, 96th Avenue NE,
Alberta, Canada T2K 0S3
1-800-868-5444

Telephone Numbers: 24 Hour Emergency Response Number, Chemtrec, 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840
For product and use information, Nufarm Agriculture Inc, 1-800-868-5444.

2. HAZARDS IDENTIFICATION

Classified according to UN GHS Version 5.

PHYSICAL HAZARDS:

None

HEALTH HAZARDS:

Eye Damage/Irritation	Category 1
Skin Corrosion/Irritation	Category 2

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, long-term hazard Category 2

SIGNAL WORD (OSHA):

DANGER

HAZARD STATEMENTS:

Causes serious eye damage. Causes skin irritation. Toxic to aquatic life with long lasting effects.



PRECAUTIONARY STATEMENTS

If medical advice is needed, have product container or label at hand. Keep out of reach of children.

Read label before use. Avoid breathing mists and spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, clothing, eye and face protection. Wash hands and exposed skin thoroughly after handling.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

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IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
 Take off contaminated clothing and wash before reuse.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	Content
Prothioconazole	178928-70-6	250 g/L
Alkylpyrrolidone		10-30%
Alkylamide		30-60%

Synonyms: NUL3391

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

4. FIRST AID MEASURES

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing Media: If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

Special Fire Fighting Procedures: Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces. STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

Unusual Fire and Explosion Hazards: Considered low risk due to water content, however upon evaporation of water the product is combustible.

Hazardous Decomposition Materials (Under Fire Conditions): May emit hazardous smoke and fumes if involved in fires or exposed to extreme heat.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8. If product has dried out and the possibility of dust generation exists, wear a suitable respirator.

Environmental Precautions: Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type

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containers for disposal. See Section 13: DISPOSAL CONSIDERATIONS for more information.

7. HANDLING AND STORAGE

HANDLING: Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

STORAGE: Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment: When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.

General Hygiene Considerations: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

After each day's use, wash contaminated clothing and safety equipment.

Exposure Guidelines:

Component	OSHA		ACGIH	
	TWA	STEL	TWA	STEL
Prothioconazole	NE	NE	NE	NE
Alkylpyrrolidone	NE	NE	NE	NE
Alkylamide	NE	NE	NE	NE

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear straw coloured liquid
Odor:	Black licorice-like
Odor threshold:	Not available
pH:	4.89
Melting point/freezing point:	Not available
Initial boiling point and boiling range	Not available
Flash point:	> 103.9°C
Evaporation rate:	Not available
Flammability (solid, gas):	Non-combustible
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	0.0004 mPa (20°C for prothioconazole)
Vapor density:	Not available
Relative density:	1.002
Solubility(ies):	Disperses in water.
Partition coefficient: n-octanol/water:	Kow Log P is 3.82 for prothioconazole
Autoignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	39.97 mPa(s) (20°C)
VOC Emission Potential (%)	Not determined

Note: Physical data are typical values but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Strong oxidizing agents: bases and acids.

11. TOXICOLOGICAL INFORMATION

Acute Oral: Rat LD₅₀: > 6200 mg/kg for prothioconazole

Acute Dermal: Rat LD₅₀: >2000 mg/kg for prothioconazole

Acute Inhalation: Rat 4-hr LC₅₀: >4.99 mg/L for prothioconazole dust

Eye Irritation: The concentrate will cause severe irritation of the eyes.

Skin Irritation: This product is a skin irritant.

Reproductive Toxicity: Evidence from animal studies suggests the potential for developmental toxicity on repeated or prolonged exposure.

Mutagenicity: Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Carcinogenicity / Chronic Health Effects: Prothioconazole is not classified as carcinogenic by IARC, NTP, ACGIH or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Product is classified as highly toxic to the aquatic environment with long-lasting effects.

Fish: LC50 (96hr) for rainbow trout is 1.83 mg/l for prothioconazole

Daphnia: LC50 (48hr) for daphnia is 1.3 mg/l for prothioconazole.

Algae: EC50 (72hr) is 1.1 mg/L for prothioconazole

Bees: Not toxic to bees. LD50 >71 µg/bee.

Environmental Fate: For prothioconazole: Rapidly degraded to prothioconazole-desthio and prothioconazole-S-methyl. Parent compound and metabolites show low potential for leaching or accumulation. It is rapidly degraded in water/sediment conditions under aerobic conditions (DT₅₀ for total system 2-3 d).

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. On site disposal of the concentrated product is not acceptable.

Container Handling and Disposal: Dispose of contents and container in accordance with local and provincial regulations. Do not use this container for any other purposes.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

TDG

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (prothioconazole), Class 9, PG III

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Marine pollutant.

Section 1.45.1 of the TDG Regulations provides an exemption from documentation and safety marks only for this product and only when transported by a road or railway vehicle.

DOT

Not dangerous goods / not hazardous material

IMO / IMDG

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (prothioconazole solution),
Class 9, PG III

Marine pollutant.

IATA

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (prothioconazole solution),
Class 9, PG III

Environmentally hazardous mark: Yes

15. REGULATORY INFORMATION

Pest Control Products Act Registration Number: 34800

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label:



POISON
DANGER- CORROSIVE TO EYES AND SKIN

WHMIS exempt.

16. OTHER INFORMATION

This Safety Data Sheet (SDS) is designed to comply with the Globally Harmonized System (GHS) of classification, and the Hazardous Products Regulations.

This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use. The product labeling provides that information specifically for product use as intended.

Company and published information is used in the development of this SDS. The information herein is presented in good faith and believed accurate at the date of publication. However, no warranty, expressed or implied, is given.

Revisions to the last issue: New

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