

MATERIAL SAFETY DATA SHEET

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In Case of Medical Emergency, Call
1-877-424-7452 or
Call 1-800-424-9300 Chemtrec (Transportation and Spills)

1. PRODUCT IDENTIFICATION

Product Name: **INCENTIVE RTA**
EPA Signal Word: Caution
Active Ingredient(%): Difenoconazole (3.21%) CAS No.: 119446-68-3
Chemical Name: 1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]
Chemical Class: Triazole Fungicide
Active Ingredient(%): Mefenoxam (0.27%) CAS No.: 70630-17-0
Chemical Name: (R)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester
Chemical Class: Phenylamide Fungicide
EPA Registration Number(s): 100-826-1381

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Ethylene Glycol (not to exceed 28%)	Not Established	100 mg/m ³ (ceiling aerosol]	Not Established	No
Kaolin Clay	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA	2 mg/m ³ TWA (respirable dust)	10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA	No
Difenoconazole (3.21%)	Not Established	Not Established	Not Established	No
Mefenoxam (0.27%)	Not Established	Not Established	Not Established	No

**Recommended by NIOSH

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

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

Causes mild eye and skin irritation.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Dark red liquid
Odor: Slight paint odor

Unusual Fire Explosion and Reactivity Hazards

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

4. FIRST AID MEASURES

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

- Ingestion: If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 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 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 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 a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	>210°F	
Flammable Limits (% in Air):	Lower: % Not Applicable	Upper: % Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not flammable	

Unusual Fire Explosion and Reactivity Hazards

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

In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. 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. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. If a solid, sweep up material and place in a compatible disposal container. If a liquid, 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

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

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.
Skin Contact:	Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
Inhalation:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. A NIOSH-certified combination air-purifying respirator with an N, P or R 95 or HE class filter and an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark red liquid
Odor:	Slight paint odor
Melting Point:	Not Applicable
Boiling Point:	Not Available
Specific Gravity/Density:	1.19 g/cm ³
pH:	7.4 (1% suspension in water)

Solubility in H₂O

Difenoconazole:	15 mg/l @ 77°F (25°C)
Mefenoxam:	26 g/l @ 77°F (25°C)

Vapor Pressure

Difenoconazole:	2.5 x 10 ⁽⁻¹⁰⁾ mmHg @ 77°F (25°C)
Mefenoxam:	2.5 x 10 ⁽⁻⁵⁾ mmHg @ 77°F (25°C)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None known.
Materials to Avoid:	None known.
Hazardous Decomposition Products:	Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation-Studies (Finished Product)

Ingestion:	<u>Practically Non-Toxic</u> Oral (LD50 Rat)	> 5,050 mg/kg body weight
Dermal:	<u>Slightly Toxic</u> Dermal (LD50 Rabbit)	> 2,020 mg/kg body weight
Inhalation:	<u>Slightly Toxic</u> Inhalation (LC50 Rat)	> 3.1 mg/l air 4 hours
Eye Contact:	Minimally Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

Reproductive/Developmental Effects

Difenoconazole:	None observed.
Mefenoxam:	None observed.

Chronic/Subchronic Toxicity Studies

Difenoconazole:	Kidney and liver effects at high doses (>5,000 ppm; rats); Eye effects in dogs at high dose levels.
Mefenoxam:	Liver effects at high dose levels.

Carcinogenicity

Difenoconazole:	2/70 male rats in the highest dose group (20,000 ppm) were found to have squamous cell carcinoma in the non-glandular stomach. Effect did not occur in female rats or in mice and not considered relevant to humans. Increase in brain tumors (mice) at doses exceeding the Maximum Tolerated Dose (MTD) (>2,500 ppm).
Mefenoxam:	None observed.

Other Toxicity Information

None.

Toxicity of Other Components

Ethylene Glycol (not to exceed 28%)

Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice. Exposure to high concentrations of mists or aerosols may result in effects on the hematopoietic system and central nervous system with headache, dizziness and drowsiness. Severe kidney damage results from swallowing large amounts of ethylene glycol.

Kaolin Clay

Long term exposure to high concentrations of this dust may produce x-ray evidence of dust in the lungs. Continued long term overexposure may affect respiratory function in some individuals.

Target Organs

Active Ingredients

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

Inert Ingredients

Ethylene Glycol:	Blood, kidney, CNS
Kaolin Clay:	Lung

12. ECOLOGICAL INFORMATION

Summary of Effects

Difenoconazole:

Highly toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Relatively nontoxic to wildlife.

Mefenoxam:

Practically non-toxic to aquatic organisms and wildlife.

Eco-Acute Toxicity

Difenoconazole:

Bees LC50/EC50 > 100 ug/bee
Invertebrates (water flea) LC50/EC50 0.77 ppm
Fish (Trout) LC50/EC50 1.1 ppm
Fish (Bluegill) LC50/EC50 1.2 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 4,760 ppm
Birds (8-day dietary - Mallard duck) LC50/EC50 > 5,000 ppm

Mefenoxam:

Bees LC50/EC50 > 25 ug/bee
Invertebrates (water flea) LC50/EC50 > 113 ppm
Fish (Trout) LC50/EC50 > 121 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 5,620 ppm

Eco-Chronic Toxicity

Difenoconazole:

Fish (Fathead minnow) Early Life Stage MATC >0.0087 and <0.019 mg/L
Invertebrate (Daphnia Magna) Life Cycle MATC >0.0056 and <0.013 mg/L
Mallard Reproduction NOEC 25 ppm
Bobwhite Reproduction NOEC 125 ppm

Mefenoxam:

Not Available

Environmental Fate

Difenoconazole:

No data available for the formulation. The information presented here is for the active ingredient, difenoconazole. A thorough review of environmental information is not possible in this document.
Persistence (Half-Life): Soil: Stable. Water: Stable.
Photolysis (Half-Life): Soil: Stable. Water: 6 days.
Leaching/Mobility: Immobile to medium mobility (Koc = 7734 - 347).
Soil Metabolism: Stable under aerobic and anaerobic conditions.
Action in Water (after 24 hours): Sinks.

Mefenoxam:

No data available for the formulation. The information presented here is for the active ingredient, mefenoxam. A thorough review of environmental information is not possible in this document.
Persistence (Half-Life): Soil: 73.5 days. Water: Stable @ pH 5-7; 116 days @ pH 9.
Photolysis (Half-Life) Soil: 248 days. Water: Stable.
Leaching/Mobility: Low to very high mobility (Koc = 1299-20).
Soil Metabolism: t/2 = degrades slowly under anaerobic soil conditions.
Action in Water (after 24 hrs.): Mixes then sinks.

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

Not regulated by DOT.

B/L Freight Classification

Fungicides, NOIBN, o/t poison

Comments

None.

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

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

Section 313 Toxic Chemicals: Ethylene Glycol (not to exceed 28%) (CAS No. 107-21-1)

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 1,800 gal. (based on ethylene glycol [RQ = 5,000 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

Health: 1
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 1
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

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Replaces: New

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