

Safety Data Sheet

Isophor

Emergency Phone 1-800-424-9300 (Chemtrec)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Isophor
Chemical Name: Diflubenzuron
Recommended use of the chemical and restrictions on use: Insecticide

Company: Ensystem, Inc.
Address: 2175 Village Dr., Fayetteville, NC 28304
Daytime Phone: 1-888-398-3772

2. HAZARDS IDENTIFICATION

Hazard classification

According to Regulation 2012 OSHA Hazard Communication Standard 29CFR 1910.1200

Aquatic Acute toxicity - Category 1

Hazardous to aquatic environment - acute

Aquatic Chronic toxicity - Category 1

Hazardous to the aquatic environment - chronic

Label Elements

Hazard pictograms

This product does not require a hazard warning label in accordance with GHS criteria.

Emergency overview

Signal Word: Caution

KEEP OUT OF REACH OF CHILDREN

KEEP OUT OF REACH OF DOMESTIC ANIMALS

Other hazards

No data available

3. COMPOSITION / INFORMATION ON INGREDIENTS

Diflubenzuron CAS # 35367-38-5

Weight % - 0.25

Powdered cellulose CAS # 9004-34-6

Weight % - 99.75

4. FIRST-AID

Description of first-aid measures

General advice: Remove contaminated clothing.

Inhalation: Move person to fresh air. Keep patient calm.

Eye Contact: Hold eye open and rinse slowly and gently with water for at least 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

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

Ingestion: Have person sip a glass of water if able to swallow.

Most important symptoms and effects, both acute and delayed: No significant reaction of human body to product is known.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Foam. Carbon dioxide (CO²). Dry chemical. Soft stream or water fog only if necessary.

Advice for firefighters

Explosion Data

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge Not sensitive

Special hazards arising from the substance or mixture:

If product is heated above decomposition temperature, toxic vapors such as carbon monoxide, nitrogen dioxide, hydrogen chloride, hydrogen fluoride, halogenated hydrocarbons and hydrocarbons will be released.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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: Isolate and post spill area. Wear appropriate safety clothing, respiratory protection devices and eye/face protection (see Section 8). Evacuate unprotected personnel that are nearby.

Environmental precautions: Keep people and animals away from and upwind of spill or leak. Prevent from entering into soil, ditches, sewers, waterways and /or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleanup:

Small spills: Avoid raising dust. Use wet cleaning methods when applicable. Place pillage into suitable containers for reuse or disposal at licensed facility. Large spills: Contact Ensystex Inc. for cleanup assistance. See Section 13, Disposal considerations, for additional information.

7. HANDLING AND STORAGE

Handling: Use good personal hygiene. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

Storage: Keep out of reach of children. Product should be stored in compliance with local regulations. Store in a well ventilated, cool, dry area. Keep away from heat sources. Store in original container.

Incompatible products: None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Applicators should refer to the product label for personal protection equipment requirements during application.

Components with occupational exposure limits

Powdered cellulose OSHA PEL 5mg/m³ Respirable fraction ; PEL 15 mg/m³Total Dust
ACGIH TLV TWA value 10mg/m³

These recommendations are for Manufacturing. Applicators should see the product label for proper personal protective equipment.

Engineering measures: Apply technical measures to comply with the occupational exposure limits.

Exposure controls

Provide general and/or local exhaust ventilation to control airborne levels below the exposure limits.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required or during emergency conditions, use a NIOSH/MSHA approved respiratory protection.

Hand/Skin Protection: Wear long-sleeved shirt, long pants, socks, protective gloves and shoes

Eye/Face Protection: Chemical proof goggles / face shield

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor: Compressed cellulose tablets/ Odorless

pH: 5-7

Flash Point/Range: NA

Water solubility: Low water solubility

Vapor pressure: NA

Specific Gravity: NA

Bulk Density: 0.5 lb/gal

Flammability (solid, gas): NA

Flammability limit in Air

Upper flammability limit: NA

Lower flammability limit: NA

Vapor pressure: NA

Vapor density: NA

Density: NA

Solubility in other solvents: NA

Partition coefficient: NA

Autoignition temperature: NA

Decomposition temperature: NA

10. STABILITY AND REACTIVITY

Reactivity: None under normal use conditions

Chemical Stability: Stable under normal storage conditions.

Conditions to Avoid: Heat, flames and sparks.

Materials to Avoid: Strong oxidizing agents.

Hazardous Decomposition Products: carbon oxides (CO_x), nitrogen oxides(NO_x) hydrogen chloride, hydrogen fluoride, chlorine, fluorine

Additional Information: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Inhalation LC50/Rat/ >2.12 mg/L 4 hr (rat); Oral LD50/Rat/> 5,000 mg/kg; Dermal LD50/Rat/>5,000mg/kg

Irritation: Not likely due to nature of major constituent

Chronic Toxicity: Inhalation, after repeated exposure, various species,

Skin corrosion/irritation

non-irritating to skin

Serious eye damage/eye irritation

nonirritating to eye

Sensitization

Non-sensitizing

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity: The product has not been tested. No substance-specific organotoxicity was observed after repeated administration to animals.

Carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies indicate no potential carcinogenic effect.

Teratogenic effect: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies indicate no potential carcinogenic effect.

Reproductive toxicity effects: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies indicate no potential carcinogenic effect.

Mutagenic effects: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies indicate no potential carcinogenic effect.

Symptoms of Exposure: No significant reaction of the human body to the product are known.

12. ECOTOXICOLOGICAL INFORMATION

The product has not been tested. The statement has been derived from the properties of the individual components.

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity

Acute toxicity of diflubenzuron to fish (Sheepshead minnow)

LC₅₀, 96 Hour, >0.13 µg/l

Acute toxicity of diflubenzuron to aquatic crustacea (grass shrimp)

EC₅₀, 96 Hour, 0.00064 mg/l

Acute toxicity of diflubenzuron to algae/aquatic plants

EC₅₀ 72 Hour 20 mg/L

Chronic toxicity of diflubenzuron to fish (rainbow trout)

No observed effect concentration (NOEC) (21d) 0.2 mg/l

Chronic toxicity to aquatic invertebrates (water flea)

No observed effect concentration (NOEC) (21d) 0.00004 mg/l

Persistence and degradability

Depending on the pH diflubenzuron can be broken down in water from 1 day to 4 weeks.

Bioaccumulative potential

Diflubenzuron has little potential for bioaccumulation.

Mobility in soil

Diflubenzuron: Immobile. Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods: Improper disposal of excess pesticide is prohibited. If these wastes cannot be disposed of by use according to the label instructions, contact appropriate authorities for guidance.

Contaminated Packaging: Containers must be disposed of in accordance with local, state and federal regulations. Refer to product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT This material is not a hazardous material as defined by U.S. Department of Transportation 49 CFR Parts 100 - 185.

Classification for SEA transport (IMO-IMDG):

Not classified as a dangerous good under transport regulations

Classification for AIR transport (IATA/ICAO):

Not classified as a dangerous good under transport regulations

15. REGULATORY INFORMATION

The information herein is given in good faith, but no warranty, expressed or implied, is made. Consult Ensysyx II for further information.

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements of the local, regional, or state level pertaining to releases of this material.

FIFRA Information

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:

CAUTION

KEEP OUT OF REACH OF CHILDREN

KEEP OUT OF REACH OF DOMESTIC ANIMALS

US State Regulations

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diflubenzuron 35367-38-5	X	X	
Powdered cellulose 9004-34-6		X	X

16. Other Information**Hazard rating System****NFPA**

Health	Fire	Reactivity
1	1	0

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