

# MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994  
Dow AgroSciences LLC  
Indianapolis, IN 46268

Effective Date: 21-May-10  
Product Code: 186220

## TRELLIS HERBICIDE

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Trellis Herbicide

#### COMPANY IDENTIFICATION:

Dow AgroSciences  
9330 Zionsville Road  
Indianapolis, IN 46268-1189

### 2. COMPOSITION/INFORMATION ON INGREDIENTS:

Isoxaben: N-(3-(1-ethyl-1-methylpropyl)-5-isoxazolyl)-2,6-dimethoxybenzamide and isomers (Isoxaben)	CAS# 082558-50-7	75%
Other ingredients, total, including:		25%
Kaolin	CAS# 001332-58-7	
Crystalline silica (in Kaolin)	CAS# 014808-60-7	

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

### 3. HAZARDOUS IDENTIFICATIONS:

#### EMERGENCY OVERVIEW

Light tan water dispersible granule with a mild aromatic odor. May cause eye irritation with corneal injury. LD<sub>50</sub> for skin absorption is >5000 mg/kg. Oral LD<sub>50</sub> is >5000 mg/kg.

**EMERGENCY PHONE NUMBER:** 800-992-5994

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

**EYE:** May cause moderate eye irritation, which may be slow to heal. May cause slight transient (temporary) corneal injury.

**SKIN:** Prolonged or repeated exposure may cause slight skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD<sub>50</sub> for skin absorption in rabbits is >5000 mg/kg.

**INGESTION:** Very low toxicity if swallowed. The oral LD<sub>50</sub> for rats is >5000 mg/kg. Harmful effects not anticipated from swallowing small amounts.

**INHALATION:** No adverse effects are anticipated from single exposure to dust.

#### SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:

Contains component(s), which, in animals, have been shown to cause liver and kidney effects. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Some evidence suggests that kidney effects may result from excessive exposure also.

**CANCER INFORMATION:** This mixture contains a component which, is listed as a carcinogen for hazard communication purposes under OSHA Standard 29 CFR 1910.1200. Component listed by IARC and NTP is crystalline silica. An increase in non-malignant liver tumors was observed with isoxaben in one of two species tested.

**TERATOLOGY (BIRTH DEFECTS):** Isoxaben caused birth defects in laboratory animals only at doses toxic to the mother.

**REPRODUCTIVE EFFECTS:** Isoxaben has been shown to interfere with reproduction in animal studies.

### 4. FIRST AID:

**EYES:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**SKIN:** Wash skin with plenty of water.

**INGESTION:** No emergency medical treatment necessary.

**INHALATION:** Move person to fresh air; if effects occur, consult a physician.

**NOTE TO PHYSICIAN:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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### 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** Not applicable  
**METHOD USED:** Not applicable

#### FLAMMABLE LIMITS

LFL: 0.665 oz/cu ft  
UFL: Not applicable

**AUTO-IGNITION TEMPERATURE:** 778°F to 788°F, (415°C to 420°C)

**EXTINGUISHING MEDIA:** Use water, CO<sub>2</sub> or dry chemicals.

**FIRE AND EXPLOSION HAZARDS:** Will emit toxic vapors as it burns.

**FIRE-FIGHTING EQUIPMENT:** Wear full protective clothing and use positive-pressure, self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS:** Contain and sweep up material of small spills and dispose as waste. Report large spills to Dow AgroSciences at 800-992-5994. Prevent runoff.

### 7. HANDLING AND STORAGE:

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Keep out of reach of children. Causes eye irritation. Harmful if inhaled. Avoid ingestion, breathing dust or spray mist, and contact with skin, eyes, or clothing. Store in original container. Do not store in direct sunlight. Do not store at temperatures above 120°F. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

#### EXPOSURE GUIDELINE(S):

Kaolinite: ACGIH TLV is 2 mg/M<sup>3</sup> respirable, A4, for Kaolin. OSHA PEL is 15 mg/M<sup>3</sup> total dust, 5 mg/M<sup>3</sup> respirable for Kaolin.

Silica, crystalline: ACGIH TLV is 0.1 mg/M<sup>3</sup> (respirable) for tripoli and fused silica; 0.05 mg/M<sup>3</sup> (respirable) for cristobalite, tridymite, and quartz. Quartz has an A2 designation. OSHA PEL is (30 mg/M<sup>3</sup>)/(%SiO<sub>2</sub>+2) total dust, (250 mppcf)/(%SiO<sub>2</sub>+5) or (10 mg/M<sup>3</sup>)/(%SiO<sub>2</sub>+2) respirable for quartz, tripoli, and fused silica; the value for cristobalite and tridymite is 1/2 the value calculated for the respirable dust formula for quartz.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

### RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS:

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator. In dusty atmospheres, use a NIOSH approved particulate respirator.

**SKIN PROTECTION:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur.

**EYE PROTECTION:** Use chemical goggles.

**APPLICATORS AND ALL OTHER HANDLERS:** Refer to the product label for personal protective clothing and equipment.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**BOILING POINT:** Not applicable

**VAPOR PRESSURE:** Not applicable

**VAPOR DENSITY:** Not applicable

**SOLUBILITY IN WATER:** Disperses in water

**SPECIFIC GRAVITY:** Not applicable

**APPEARANCE:** Light tan water dispersible granule

**ODOR:** Mild aromatic odor

**pH:** (aqueous 50/50) 8.5 to 10.0

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### 10. STABILITY AND REACTIVITY:

**STABILITY: (CONDITIONS TO AVOID)** Do not store near heat or flame. Do not store in direct sunlight. Do not store at temperatures above 120°F.

**INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)**  
None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Will emit toxic vapors as it burns.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

### 11. TOXICOLOGICAL INFORMATION:

**MUTAGENICITY:** In-vitro and animal genetic toxicity studies were negative.

### 12. ECOLOGICAL INFORMATION:

#### ENVIRONMENTAL FATE:

#### MOVEMENT & PARTITIONING:

Based largely or completely on information for isoxaben. Bioconcentration potential is low (BCF is <100 or Log Pow <3).

#### DEGRADATION & PERSISTENCE:

Based largely or completely on information for isoxaben. The photolysis half-life in water is 6 days. The photolysis half-life in soil is 248 days. Under aerobic soil conditions the half-life is 4.3-10.6 months.

#### ECOTOXICOLOGY:

Based largely or completely on information for isoxaben. Not expected to be acutely toxic to aquatic organisms. EC<sub>50</sub> is above the water solubility.

### 13. DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** Do not contaminate food, feed, or water by storage or disposal. Wastes are toxic. Improper disposal is a violation of federal law. If wastes resulting from the use of this product cannot be disposed of according to label instructions, dispose of these wastes at an approved facility. Contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

### 14. TRANSPORT INFORMATION:

**DOT Non-Bulk**  
NOT REGULATED

**DOT Bulk**  
NOT REGULATED

#### IMDG

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

**Technical Name:** Isoxaben

**Hazard Class: 9 ID Number:** UN3077

**Packing Group:** PG III

**EMS Number:** f-a,s-f

**Marine pollutant.:** Yes

#### ICAO/IATA

**Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

**Technical Name:** Isoxaben

**Hazard Class: 9 ID Number:** UN3077

**Packing Group:** PG III

**Cargo Packing Instruction:** 911

**Passenger Packing Instruction:** 911

#### Additional Information

MARINE POLLUTANT

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### 15. REGULATORY INFORMATION:

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

#### U.S. REGULATIONS

**SARA 313 INFORMATION:** To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard  
A delayed health effect

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**STATE RIGHT-TO-KNOW:** The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CHEMICAL NAME	CAS NUMBER	LIST
Kaolin	001332-58-7	PA1
Silica - crystalline, quartz	014808-60-7	PA1

PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:**

CATEGORY	RATING
Health	2
Flammability	0
Reactivity	0

**COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):** To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

### 16. OTHER INFORMATION:

**MSDS STATUS:** New Product Name  
Reference: DR-0324-6740

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.

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