

TCI AMERICA SAFETY DATA SHEET

Revision number: 2 **Revision date: 10/23/2019**

1. IDENTIFICATION

Product name: Urease from Jack Bean

Product code: U0017

For laboratory research purposes. Product use: Restrictions on use: Not for drug or household use.

Company: TCI America

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Chemical Emergencies:

TCI America (8:00am - 5:00pm) PST

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Transportation Emergencies: Chemtrec 24-Hour

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Responsible department: TCI America

Environmental Health Safety and Security

+1-503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Eye Damage/Irritation [Category 2B]

WHMIS 2015: Sensitization - Respiratory [Category 1]

Signal word: Danger!

Hazard Statement(s): Causes eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Pictogram(s) or Symbol(s):



Precautionary Statement(s):

Avoid breathing dust, fume, mist, vapors or spray. Wash hands and face thoroughly after handling. [Prevention]

Wear respiratory protection.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If [Response]

experiencing respiratory symptoms: Call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye

irritation persists: Get medical advice or attention.

[Disposal] Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40

CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified:

[HNOC]

Causes mild skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Components: Urease from Jack Bean

Percent:

9002-13-5 CAS RN: **Chemical Formula:**

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4. FIRST-AID MEASURES

Description of first aid measures

Inhalation: 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.

Skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation

or rash occurs: Get medical advice/attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Get medical advice/attention if you feel unwell. Rinse mouth.

Symptoms/effects:

Acute: Redness.

Delayed: No data available

Indication of any immediate medical attention:

Not available.

Notes to physician:
No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.

Hazardous combustion products: None

Other specific hazards: Closed containers may explode from heat of a fire.

Advice for firefighters: Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area

by roping off, etc.

Environmental precautions:

Prevent product from entering drains.

Methods and materials for containment

and cleaning up:

Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Precautions for safe handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent

dispersion of dust. Wash hands and face thoroughly after handling.

Use a local exhaust if dust or aerosol will be generated.

Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a freezer.

Store under inert gas.

Store away from incompatible materials such as oxidizing agents.

Heat-sensitive Air-sensitive

Packaging material: Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls: Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed

system or local exhaust as possible so that workers should not be exposed directly. Also install safety

shower and eye bath.

Personal protective equipment

Respiratory protection: Dust respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Eye protection: Safety glasses. A face-shield, if the situation requires. **Skin and body protection:** Protective clothing. Protective boots, if the situation requires.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):

Form: Crystal - Powder

Colour: White - Slightly pale yellow

Odour:No data availableOdor threshold:No data availableOdour threshold:No data available

Melting point/freezing point:No data availableBoiling point/range:No data availableDecomposition temperature:No data availableRelative density:No data availableKinematic viscosity:No data availableLog Pow:No data available

No data available Evaporation rate(Butyl

Acetate=1):

Vapour pressure:

Dynamic Viscosity:

Vapour density:

pH:

Autoignition temperature: No data available

Flammability or explosive limits:

Lower: No data available Upper: No data available

No data available

No data available.

No data available

No data available

No data available

Solubility(ies):

Flammability(solid, gas):

Flash point:

[Water] Very soluble [Other solvents] No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under proper conditions.

Possibility of hazardous reactions: No special reactivity has been reported.

No data available

No data available

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide, carbon dioxide etc

11. TOXICOLOGICAL INFORMATION

RTECS Number: YU1700000

Acute Toxicity:

ipr-mus LD50:50 mg/kg ipr-rat LD50:48 mg/kg ivn-rat LD50:20 mg/kg scu-mus LD50:58 mg/kg

Skin corrosion/irritation:

No data available

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

IARC: No data available NTP: No data available OSHA: No data available

Reproductive toxicity:

No data available

Target organ(s): No data available

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12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: No data available Crustacea: No data available Algae: No data available

Persistence / degradability: Bioaccumulative potential(BCF):

No data available No data available

Mobility in soil

Log Pow: No data available Soil adsorption (Koc): No data available Henry's Law (PaM 3/mol): No data available

13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and

Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for

Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not

be allowed to enter the environment, drains, water ways, or the soil. Dispose of as unused product. Do not re-use empty containers.

Disposal of container:

Other considerations: Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

DOT (US) Non-hazardous for transportation.

Non-hazardous for transportation. <u>IATA</u>

IMDG Non-hazardous for transportation.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity: SARA 313: Not Listed

SARA 302: Not Listed

State Regulations State Right-to-Know

Massachusetts Not Listed **New Jersey** Not Listed Pennsylvania Not Listed California Proposition 65: Not Listed

Other Information

HMIS Classification: NFPA Rating:

Health: Health: Flammability: 0 Flammability: 0 Instability: Physical: 0

International Inventories

On DSL Canada: DSL EC-No: 232-656-0 Urease from Jack Bean TCI AMERICA Page 5 of 5

16. OTHER INFORMATION

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.