



Material Safety Data Sheet

Supplier

**TCI America
9211 N. Harborside St.
Portland, OR 97203
1-800-423-8616**

In case of Chemical Transportation Emergency Call

**Chemtrec®
(800) 424-9300 (U.S.)
(703) 527-3887 (International)**



SAFETY DATA SHEET

1. IDENTIFICATION

Product name: (-)-Cytisine
Product code: C2609
Company: TOKYO CHEMICAL INDUSTRY CO., LTD.
Address: 4-10-2, Nihonbashi-honcho, Chuo-ku, Tokyo 103-0023, Japan
Responsible department: Global Business Department
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Revision number: 4.2

2. HAZARDS IDENTIFICATION

Classification of the GHS

PHYSICAL HAZARDS Not classified

HEALTH HAZARDS

Acute toxicity (Oral) Category 3

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

ENVIRONMENTAL HAZARDS Not classified

GHS label elements, including precautionary statements

Pictograms or hazard symbols



Signal word Danger
Hazard statements Toxic if swallowed
 Causes skin irritation
 Causes serious eye irritation

Precautionary statements:

[Prevention]

Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.

[Response]

Wear protective gloves/eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

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/attention.

IF ON SKIN: Gently wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

[Storage]

Store locked up.

[Disposal]

Dispose of contents/container through a waste management company authorized by the local government.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance
Components: (-)-Cytisine
Percent: >98.0%(GC)(T)

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number:	485-35-8
Synonyms:	(1R,5S)-3,4,5,6-Tetrahydro-1H-1,5-methanopyrido[1,2-a][1,5]diazocin-8(2H)-one
Chemical Formula:	C ₁₁ H ₁₄ N ₂ O
Notice Through Official Gazettes Reference Number	
ENCS:	Not Listed

4. FIRST-AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. 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:	Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
Specific hazards arising from the chemical:	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
Precautions for firefighters:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Special protective equipment for firefighters:	When extinguishing fire, be sure to wear personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use extra personal protective equipment (P3 filter respirator for toxic particles). 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

Handling

Technical measures:	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 closed system if possible. Use a local exhaust if dust or aerosol will be generated.
Advice on safe handling:	Avoid contact with skin, eyes and clothing.

Storage

Storage conditions:	Keep container tightly closed. Store in a cool and dark place. Store locked up. Store away from incompatible materials such as oxidizing agents.
Packaging material:	Law is followed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Install a closed system or local exhaust. Also install safety shower and eye bath.
Control parameters:	Not set up
Personal protective equipment	

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection:** Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
- Hand protection:** Impervious gloves.
- Eye protection:** Safety goggles. A face-shield, if the situation requires.
- Skin and body protection:** Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state (20°C):** Solid
- Form:** crystal - powder
- Color:** Slightly pale yellow - Yellow
- Odor:** No data available
- pH:** No data available
- Melting point/freezing point:** 156°C
- Boiling point/range:** 218°C/0.3kPa
- Flash point:** No data available
- Flammability or explosive limits:**
- Lower:** No data available
- Upper:** No data available
- Relative density:** No data available
- Solubility:** Soluble in : Water Methanol Ethanol
Slightly soluble in: Acetone Benzene
Insoluble in: Petroleum ether

10. STABILITY AND REACTIVITY

- Chemical stability:** Stable under proper conditions.
- Possibility of hazardous reactions:** No special reactivity has been reported.
- Incompatible materials:** oxidizing agents
- Hazardous decomposition products:** Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

- Acute Toxicity:** orl-mus LD50:101 mg/kg
ipr-mus LD50:8550 ug/kg
ivn-mus LD50:1730 ug/kg
scu-rat LD50:8750 ug/kg
- Skin corrosion/irritation:** No data available
- Serious eye damage/irritation:** No data available
- Germ cell mutagenicity:** No data available
- Carcinogenicity:**
- IARC =** No data available
- NTP =** No data available
- Reproductive toxicity:** No data available
- RTECS Number:** HA4025000

12. ECOLOGICAL INFORMATION

- Ecotoxicity:**
- Fish:** No data available
- Crustacea:** No data available
- Algae:** No data available
- Persistence / degradability:** No data available
- Bioaccumulative potential(BCF):** No data available
- Mobility in soil**
- Log Pow:** No data available
- Soil adsorption (Koc):** No data available

12. ECOLOGICAL INFORMATION

Henry's Law constant(PaM³/mol): No data available

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. 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. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class: 6.1: Toxic substance.
UN-No: 2811
Proper shipping name: Toxic solid, organic, n.o.s.
Packing group: III

15. JAPANESE REGULATORY INFORMATION

Law for safety of vessels: Hazardous materials notification, Schedule form No.1 Toxic substance

16. OTHER INFORMATION

The reference company name of written contents

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This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.