

## (±)-Nicotine-d<sub>4</sub> (pyridine-d<sub>4</sub>)

### Section 1. Chemical product and company identifications

**Product code:** D-5098  
**Chemical formula:** C<sub>10</sub>H<sub>10</sub>D<sub>4</sub>N<sub>2</sub>  
**CAS:** 350818-69-8  
**CAS (unlabelled):** 22083-74-5  
**Synonyms:** (±)-3-(1-Methyl-2-pyrolidinyl)pyridine

#### Supplier / Manufacturer:

**C/D/N Isotopes Inc.**  
88 Leacock Street  
Pointe-Claire (Québec) H9R 1H1  
Phone: 514-697-6254  
Toll-Free (Canada & USA): 1-800-565-4696  
Fax: 514-697-6148  
Website: www.cdnisotopes.com

#### In case of emergency:

**TOXYSKAN HOTLINE: 1-855-780-0599**


### Section 2. Hazards identifications

#### GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

**GHS Classification:**

- Acute toxicity, Oral (Category 2)
- Acute toxicity, Dermal (Category 2)

**GHS Label elements:**

- Pictograms: 
- Signal word: Danger

**Hazards statement:** - H300 + H310 Fatal if swallowed or in contact with skin.

**Precautionary statement:**

- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash skin thoroughly after handling
- P270 Do not eat, drink, or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.
- P330 Rinse mouth.
- P361 Remove/Take off immediately all contaminated clothing.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up
- P501 Dispose of contents/ container to an approved waste disposal plant

### Section 3. Composition and information on ingredients

<u>Name</u>	<u>CAS</u>	<u>Concentration %</u>
(±)-Nicotine-d <sub>4</sub>	350818-69-8	> 98

### Section 4. First aid measures

**Eye contact:** Flush eyes with water as a precaution.

**Skin contact:** Wash off with soap and plenty of water. Consult a physician.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Indication of immediate medical attention and special treatment needed, if necessary:** Treat symptomatically

**Most important symptoms and effects, both acute and delayed:** No data available.

## **Section 5. Firefighting measures**

**Flammability of the product:** Flammable in the presence of a source of ignition when the temperature is above the flash point.

**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

**Firefighting media and instructions:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

## **Section 6. Accidental release measures**

**Personal precautions:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

**Environmental precautions:** Do not let product enter drains. Discharge into the environment must be avoided.

**Methods for cleaning up:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## **Section 7. Handling and storage**

**Handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Provide appropriate exhaust ventilation.

**Storage:** STORE REFRIGERATED. Adequate ventilation. Protect from moisture. Protect from light.

## **Section 8. Exposure Controls, Personal Protections**

**Engineering controls:** Use mechanical exhaust or laboratory fumehood to avoid exposure.

**Eyes:** Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).

**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).

**Hands:** Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Skin/body:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Section 9. Physical and chemical properties (unlabelled)**

**Molecular weight:** 162.23 g/mol

**Physical status:** Liquid

**Color:** Colorless to brown

**Odour:** No data available

**Density:** 1.015 g/cm<sup>3</sup>

**Melting point:** -80 °C (-112 °F)

**Boiling point:** 247 °C (477 °F)

**Vapour pressure:** 0.05 hPa (0.04 mmHg) at 25 °C (77 °F)

**Vapour density:** 5.6 (Air = 1)

**Partition coefficient (octanol/water):** log Pow: 1.17

**Water solubility:** Soluble

**Lower explosion limit:** 0.7 Vol%

**Upper explosion limit:** 4 Vol%

**Auto-ignition temperature:** 240 °C (464 °F)

**Flash point:** 101 °C (214 °F)

## **Section 10. Stability and reactivity**

**Stability and reactivity:** Stable under recommended storage conditions. Avoid direct sunlight

**Incompatibility:** Strong oxidizing agents.

**Products of combustion:** Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

**Reactivity conditions:** Avoid moisture and strong heating

## **Section 11. Toxicological information (unlabelled)**

**Toxicological data:** (±)-Nicotine

**Information on ingredients:**

<b>Name</b>	<b>CAS</b>	<b>LD<sub>50</sub></b>	<b>LC<sub>50</sub></b>
(±)-Nicotine	22083-74-5	Oral - Rat - 50 mg/kg Dermal - Rat - 140 mg/kg	No data available

### Potential acute effects

- **Eyes:** No data available.
- **Skin:** Fatal if absorbed through skin. May cause skin irritation.
- **Inhalation:** No data available.
- **Ingestion:** Fatal if swallowed.

### Potential chronic effects

- **Carcinogenic effects:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** Prolonged or repeated exposure can cause: nausea, dizziness, headache, vomiting, diarrhoea, convulsions.

## Section 12. Ecological information

### Ecological data:

<u>Name</u>	<u>Results</u>	<u>Species</u>	<u>Period</u>
(±)-Nicotine	4 mg/l LC50	Oncorhynchus mykiss	96 h
	0.24 mg/l EC50	Daphnia magna	48 h
	11 mg/l	Desmodesmus subspicatus	72 h

**Effects on environment:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Mobility:** No data available.

**Environmental precautions:** No data available.

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

## Section 13. Disposal considerations

**Waste disposal:** Contact a licensed professional waste disposal service to dispose of this material.

## Section 14. Transportation information

### Classification DOT/IMDG/IATA label:

**Shipping name:** Nicotine

**UN number:** UN1654

**Class:** 6.1

**Packaging group:** II

**Additional information:** None

## Section 15. Regulatory information

### UNITED STATES: NFPA classification



Health: 4  
Flammable: 1  
Reactivity: 0  
Special conditions: None

**Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous**

### U.S. Federal regulations:

**California proposition 65 requirements :** Listed

**SARA section 313 (specific toxic chemical listings) :** Listed

**CERCLA reportable quantity :** Listed

**Sections 302-304 reportable quantity :** Listed

**Community Right-to-Know (Sections 311 and 312) :** Listed

## **Section 16. Additional information**

**Date of issue:** August 25<sup>th</sup>, 2022

**Version:** 5

**Elaborated by:** Toxyscan Inc., 1-866-780-0599

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This safety data sheet has been prepared in accordance with the OSHA (USA), WHMIS (Canada) / GHS classification rules in effect at the time of writing.