

(1'R, 2'S)-Nicotine 1,1'-Di-N-Oxide: sc-208823



The Power to Question

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: (1'R, 2'S)-Nicotine 1,1'-Di-N-Oxide

Product Number: sc-208823

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800

Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

WHMIS Classification

B2 Flammable liquid
D1B

Flammable liquid
Toxic if swallowed
Toxic if absorbed through skin.
Moderate skin irritant.

HMIS Classification

Health Hazard: 3
Flammability: 3
Physical Hazards: 1

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.
Ingestion Toxic if swallowed.
Skin Harmful if absorbed through skin. Causes skin irritation.
Eyes Cause eye irritation.

GHS Hazard Class

Acute toxicity, oral (category 3)
Acute toxicity, dermal (category 3)
Flammable liquids (Category 2)
Skin irritation (Category 2)
Eye irritation (Category 2B)
Specific target organ toxicity - single exposure, respiratory tract (Category 3)

GHS Label elements, including precautionary statements

Signal word Danger

Hazard statements

H225 Highly flammable liquid and vapor.
H301 Toxic if swallowed.
H311 May be harmful in contact with skin.
H315/H320 Causes skin and eye irritation.
H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P301/P310 IF SWALLOWED: Immediately call a POISON CENTER or a doctor/physician.
P305/P351/P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P302/P352 IF ON SKIN: Wash with plenty of soap and water.

GHS Label Pictogram



3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula: C10H14N2O2

Molecular Weight: 194.24

CAS Registry #: 129547-84-8

Ingredient	CAS#	EC#	Index-No.	%Composition
(1'R, 2'S)-Nicotine 1,1'-Di-N-Oxide	129547-84-8	n/a	n/a	20%
Ethanol	64-17-5	200-578-6	603-002-00-5	80%

4. FIRST AID MEASURES

General Advice

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

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust or aerosol formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust or aerosols. Provide appropriate exhaust ventilation at places where dust/aerosol is formed. Normal measures for preventative fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store under inert atmosphere at 2-8° C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupation Exposure Levels

Ethanol CAS# 64-17-5

TWAEV	1,000 ppm(1,900 mg/m ³)
TWA	1,000 ppm(1,880 mg/m ³)

Canada. Ontario OEL
Canada. Alberta, Occupational Health and Safety Code
Canada. Quebec OELs
USA. ACGIH Threshold Limit Values (TLV)
Canada. British Columbia OEL

TWAEV	1,000 ppm(1,880 mg/m ³)
TWA	1,000 ppm
STEL	1,000 ppm

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator with approved particle/OV 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) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield or safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, if needed after risk assessment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid	pH	N/A
Melting point	N/A	Boiling point	N/A
Flash point	N/A	Ignition temperature	N/A
Lower explosion limit	N/A	Upper explosion limit	N/A
Vapor pressure	N/A	Density	N/A
Water solubility	N/A		

10. STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Conditions to avoid

Heat.

Materials to avoid

Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Ethanol CAS# 64-17-5

LD50 (oral - rat) 7060 mg/kg

LC50 (inhalation - rat) 20000ppm/10h

Other components - no data available.

Irritation and corrosion

no data available

Sensitization

no data available

Carcinogenicity

IARC: To the best of our knowledge, this compound has not been identified as a possible or potential human carcinogen by IARC.

Reproductive toxicity

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Harmful if absorbed through skin. Causes skin irritation.

Eyes Cause eye irritation

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: KQ6300000 (Ethanol), other components are not listed.

12. ECOLOGICAL INFORMATION**Toxicity**

no data available

Bioaccumulative potential

no data available

PBT and vPvB assessment

no data available

Persistence and degradability

no data available

Mobility in soil

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 1986 Class: 3 (6.1) Packing group: II
Proper shipping name: Alcohols, flammable, toxic, n.o.s. ((1'R, 2'S)-Nicotine 1,1'-Di-N-Oxide [20% in ethanol])
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 1986 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D
Proper shipping name: Alcohols, flammable, toxic, n.o.s. ((1'R, 2'S)-Nicotine 1,1'-Di-N-Oxide [20% in ethanol])
Marine pollutant: No

IATA

UN-Number: 1986 Class: 3 (6.1) Packing group: II
Proper shipping name: Alcohols, flammable, toxic, n.o.s. ((1'R, 2'S)-Nicotine 1,1'-Di-N-Oxide [20% in ethanol])

15. REGULATORY INFORMATION

DSL Status

Ethanol (CAS# 64-17-5) is on the Canadian DSL list. All other components are not listed on the Canadian DSL or NDSL list.

WHMIS Classification

B2	Flammable liquid	Flammable liquid
D1B		Toxic if swallowed
		Toxic if absorbed through skin.
		Moderate skin irritant.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

8/17/2012