

SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-EO-02161
Product Name	(1'R,2'S)-Nicotine 1'-Oxide
CAS No.	51020-67-8
Category	Impurity
Synonyms	Trans-nicotine-1'-oxide; 3-[(1R,2S)-1-Methyl-1-oxido-2-pyrrolidinyl]pyridine; (1R,2S)-anti-Nicotine N'-oxide; 3-[(1R,2S)-1-Methyl-1-oxido-2-pyrrolidinyl]pyridine; (1R,2S)-anti-Nicotine N'-oxide; (1'R,2'S)-cis-Nicotine-1'-N-oxide; 1'(R),2'(S)-cis-Nicotine-N'-oxide; (1R-trans)-3-(1-methyl-1-oxido-2-pyrrolidinyl)-Pyridine
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

2.2 Label Elements

Signal Word: Not available

Not available

Hazard Statement(s)

Code	Statement
Not available	Not available

Precautionary Statement(s)

Code	Statement
Not available	Not available

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : (1'R,2'S)-Nicotine 1'-Oxide

CAS Number : 51020-67-8

Molecular Formula : C₁₀H₁₄N₂O

Molecular Weight : 178.23

Parent Chemical : Nicotine

Synonyms : Trans-nicotine-1'-oxide; 3-[(1R,2S)-1-Methyl-1-oxido-2-pyrrolidinyl]pyridine; (1R,2S)-anti-Nicotine

N'-oxide; 3-[(1R,2S)-1-Methyl-1-oxido-2-pyrrolidinyl]pyridine; (1R,2S)-anti-Nicotine N'-oxide;

(1'R,2'S)-cis-Nicotine-1'-N-oxide; 1'(R),2'(S)-cis-Nicotine-N'-oxide;

(1R-trans)-3-(1-methyl-1-oxido-2-pyrrolidinyl)-Pyridine

Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice:

- Seek medical attention if symptoms occur or persist.
- Show this Safety Data Sheet to the physician in attendance.
- Remove contaminated clothing and shoes.

Inhalation:

- Move person to fresh air.
- If breathing is difficult, seek medical attention.

Skin contact:

- Wash with plenty of soap and water.
- Seek medical attention if irritation develops.

Eye contact:

- Rinse cautiously with water for several minutes.
- Remove contact lenses if present and easy to do; continue rinsing.
- Seek medical attention.

Ingestion:

- Rinse mouth.
- Do NOT induce vomiting unless directed by medical personnel.
- Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- No data available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.
- No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

- Water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO₂).

Unsuitable extinguishing media:

- No data available.

5.2 Special hazards arising from the substance or mixture

- May decompose under fire conditions to release irritating and/or toxic fumes.
- Specific hazardous combustion products: No data available.

5.3 Advice for firefighters

- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Use water spray to cool unopened containers.
- Prevent fire-fighting water from entering drains or waterways.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Evacuate unnecessary personnel.
- Avoid breathing dust/vapors/mist.
- Avoid contact with skin and eyes.
- Use appropriate personal protective equipment (see Section 8).

6.2 Environmental precautions

- Avoid release to the environment.
- Prevent entry into drains, sewers, or waterways.

6.3 Methods and material for containment and cleaning up

- Contain spill.
- For small spills: carefully collect using suitable absorbent or by sweeping (avoid dust generation) and place in a suitable, labeled container for disposal.
- Clean contaminated area with water and detergent as appropriate.

6.4 Reference to other sections

- See Section 8 for personal protective equipment.
- See Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Avoid contact with skin, eyes, and clothing.
- Avoid breathing dust/vapors/mist.

- Use only with adequate ventilation.
- Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

- Store in a tightly closed container.
- Store in a cool, dry, well-ventilated place.
- Protect from moisture.
- Keep away from incompatible materials.
- Incompatible materials: No data available.

7.3 Specific end use(s)

- Laboratory/research use. Not for food, drug, or household use.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits:

- No data available.

Biological limit values:

- No data available.

8.2 Exposure controls

Engineering controls:

- Use local exhaust ventilation or general ventilation to maintain exposure below applicable limits.

Personal protective equipment (PPE):

Eye/face protection:

- Safety glasses with side shields or chemical splash goggles.

Skin protection:

- Wear protective gloves (material not specified).
- Wear appropriate protective clothing.

Respiratory protection:

- If ventilation is inadequate, use appropriate respiratory protection.

Thermal hazards:

- No data available.

Hygiene measures:

- Do not eat, drink, or smoke when using this product.
- Remove contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available

Test	Result
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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10.1 Reactivity

- No data available.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No data available.

10.4 Conditions to avoid

- Heat, open flames, and other ignition sources.
- Incompatible conditions: No data available.

10.5 Incompatible materials

- No data available.

10.6 Hazardous decomposition products

- No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: No data available.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure

- No data available.

Symptoms related to the physical, chemical and toxicological characteristics

- Not available.

SECTION 12: Ecological information

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12.1 Toxicity

- No data available.

12.2 Persistence and degradability

- No data available.

12.3 Bioaccumulative potential

- No data available.

12.4 Mobility in soil

- No data available.

12.5 Results of PBT and vPvB assessment

- No data available.

12.6 Endocrine disrupting properties

- No data available.

12.7 Other adverse effects

- No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:

- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains.

Contaminated packaging:

- Dispose of as unused product in accordance with applicable regulations.

Waste codes:

- Not available.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

- Not available.

14.2 UN proper shipping name

- Not available.

14.3 Transport hazard class(es)

- Not available.

14.4 Packing group

- Not available.

14.5 Environmental hazards

- Not available.

14.6 Special precautions for user

- Not available.

14.7 Maritime transport in bulk according to IMO instruments

- Not available.

SECTION 15: Regulatory information

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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- No data available.

15.2 Chemical safety assessment

- No data available.

SECTION 16: Other information

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- Parent chemical: Nicotine

Supplier information:

- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

Revision information:

- Revision date: Not available
- Version: Not available

Disclaimer:

- The information provided is believed to be accurate but is not exhaustive and is intended only as guidance for safe handling, use, processing, storage, transportation, disposal, and release. It does not constitute a warranty of any kind.
- Not for human or veterinary use.

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