

## SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Nicotine  
**CAS#:** 54-11-5  
**EC Number:** 200-193-3  
**Product Category:** PC 19 Intermediate  
**Supplier:** North America Ingredients  
 131 Finchdene Square Unit 7 | Toronto, ON M1X1A6  
 Telephone: 248-522-6082 Fax: 248-493-5936  
**Emergency Phone:** CHEMTREC (24 Emergency Telephone) call: 1-800-424-9300

### SECTION 2 – HAZARDS IDENTIFICATION

**GHS Classification:** Skull and crossbones (GHS06), Environment (GHS06)

**Pictogram:** Not Applicable

**Signal Word:** Not Applicable

**Hazard Statement(s):** Not Applicable

**HMIS (U.S.A.):** Health Hazard: 3 Fire Hazard: 1 Reactivity: 0 Personal Protection: H

### SECTION 3 - INGREDIENT INFORMATION

**Chemical Name:** Nicotine

**Synonyms:** • (-)- Nicotine; (-)-3-(Methyl-2-pyrrolidyl) pyridine; (S)-3-(1-Methyl-2-pyrrolidinyl) pyridine; (S)- Nicotine; 1-Methyl-2-(3pyridyl)pyrrolidine; 3-(N- Methylpyrrolidino )pyridine; beta-Pyridyl-alpha-N-methylpyrrolidine; S-(-)Nicotine

**Chemical Formula:** C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>

**Composition:**

Chemical Name:	CAS NUMBER	% By WEIGHT
Nicotine	54-11-5	100%

There are no additional ingredients present which, within current knowledge of the supplier and in the concentration applicable, are classified as health hazards and hence require reporting in this section.

### SECTION 4 – FIRST AID MEASURES

**Eyes:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Serious skin contact wash with disinfectant soap and cover the contaminated skin with anti-bacterial cream. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Symptoms and Effects:** If victim is unconscious, never induce vomiting nor give liquids. Place victim in a stable side position and keep warm.

### SECTION 5 – FIRE-FIGHTING MEASURES

**Flammability of the Product:** May be combustible at high temperature. Auto-Ignition Temperature: 244°C (471.2°F)

**Extinguishing Media:** Small fire: dry chemical powder. Large fire: Use water spray, fog or foam. Do not use water jet.

**Fire Hazards:** When heated to decomposition it emits highly toxic fumes.

**Fire Fighting:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### SECTION 6 – ACCIDENTAL RELEASE

**Personal Precautions:** Wear protective equipment . Keep unprotected persons away. Ensure adequate ventilation. personnel t

**Environmental Precaution:** Inform respective authorities in case of seepage into water course or sewage system.

**Spills & Leaks:** Small Spill: Dilute with water and mop up or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill:** Poisonous liquid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### SECTION 7 – HANDLING AND STORAGE

**Precautions for Safe Handling:** Ensure good ventilation/exhaustion at the workplace. No special precaution are necessary if used correctly.

**Storage Condition:** Keep container tightly closed. Keep container in a cool, well-ventilated area away from incompatible substance. Do not store together with oxidizing and acidic material.

**Additional Storage Conditions:** Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles

### SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name:	Type	Value
Nicotine	N/L	N/L

N/L = Not listed

**Exposure Guidelines:** Consult local authorities for provincial or state exposure limits.

**Specific Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protective Equipment:** Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**State:** Liquid (Oily liquid.)

**Description:** Yellowish -brown. Colorless to light yellow

**Solubility:** Easily soluble in diethyl ether. Soluble in cold water. Miscible with water below 60 deg. C. Very soluble in alcohol, chloroform, Petroleum ether, kerosene oils.

**Odor:** Fish (Slight)

**Flammability:** May be combustible at high temperature.

<b>Odor Threshold:</b>	Not available	<b>pH:</b>	Not available	<b>Melting Point:</b>	-79°C (-110.2°F)
<b>Boiling Point:</b>	247°C (476.6°F)	<b>Freezing Point:</b>	Not available	<b>Flash Point:</b>	Not available
<b>Specific Gravity:</b>	1.0097 (Water= 1)	<b>Evaporation Rate:</b>	Not available	<b>Explosive Limit:</b>	Not available
<b>Lonicity (In Water)</b>	Not available	<b>Lower Flammable/ Explosive Limit(s):</b>	Not available	<b>Vapor Pressure:</b>	Not available
<b>Vapor Density: (AIR=1)</b>	5.61 (Air = 1)	<b>Relative Density: (WATER=1)</b>	Not available	<b>Molecular Weight</b>	162.24g/mole
<b>Volatility:</b>	Not available	<b>Decomposition Temperature:</b>	Not available	<b>Viscosity:</b>	Not available

## SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:** Not established

**Corrosivity:** Non-corrosive in presence of glass.

**Stability:** The product is stable.

**Incompatibilities:** Reactive with oxidizing agents, acids.

**Hazardous Polymerization:** Will not occur.

**Possibility of Hazardous Reaction:** Not established

**Conditions of Instability:** Heat, ignition sources (flames, sparks), incompatible materials.

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Toxicity Data:**

**Routes of Entry:** Absorbed through skin. Dermal contact. Inhalation. Ingestion.

**Toxicity to Animal:** Acute oral toxicity (LD50): (3.34mg/kg (mouse)). Acute dermal toxicity (LD50): 50 mg/kg (Rabbit)

**Chronic Effect on Humans:** Mutagenic effects: mutagenic for bacteria and /or yeast. Causes damage to the following organs: the nervous system, cardiovascular system, upper respiratory tract, central system (CNS)

**Other Toxic Effects on Humans:** Very hazardous in case of skin contact (permeator), of ingestion. Hazardous in case of skin contact.

**Special Remarks on other Toxic Effects on Humans:** Acute Potential Health Effects: Skin: It can cause skin irritation and rash. It may cause dermatitis. It is well absorbed by dermal exposure route. May be fatal if absorbed through skin. Systemic effects similar to that of ingestion can occur from nicotine poisoning. Eyes: It can cause eye irritation. Severe pain, lacrimation, conjunctival reaction, corneal infiltration, partial opacification of cornea. Inhalation: It is well absorbed by inhalation exposure route. Inhalation can produce systemic effects similar to that of ingestion. Ingestion: May be fatal if swallowed. It can cause gastrointestinal tract irritation/disturbances with nausea, vomiting, diarrhea, stomach pain, burning sensation of the mouth, throat, esophagus, and stomach, loss of appetite. Metabolic acidosis and hypokalemia can develop if there is severe diarrhea. It acts on the central nervous system and other parts of the nervous system such as the adrenal medulla, autonomic ganglia, and neuromuscular junctions with initial stimulation followed by depression. Early signs of toxicity from small doses include nausea, vomiting, headache, dizziness, tachycardia, hypertension, tachypnea, hyperpnea, sweating, and salivation. High exposure can cause dizziness, headache, tremors, anxiety, restlessness, seizures, hypotonia, decreased deep tendon reflexes progressing to paralysis, fasciculations,

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Product of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation product may arise.

**Bio-Accumulative Potential:** Not available.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Other Adverse Effects:** Not available.

## SECTION 13 – DISPOSAL CONSIDERATION

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulation.

## SECTION 14 – TRANSPORT INFORMATION

### United States & Canada:

**DOT Classification:** Class 6.1 : Poisonous material  
**Identification number:** Nicotine UNNA1654.  
**Class:** 6.1  
**Packing Group:** PG II

**Environmental hazard:** Not available.

**Special Shipping information:** Not applicable.

## SECTION 15 – REGULATORY INFORMATION

**Federal and State Regulations:** California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: L-Nicotine California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: L-Nicotine Connecticut hazardous material survey.: L-Nicotine Illinois toxic substances disclosure to employee act: L-Nicotine Illinois chemical safety act: L-Nicotine New York release reporting List: L-Nicotine Rhode Island RTK hazardous substance: L-Nicotine Pennsylvania: RTK: L- Nicotine.

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**WHMIS (Canada):** CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing Other toxic effects (VERY TOXIC)

**DSCL (EEC):** R25- Toxic if swallowed. R27- Very toxic in contact with skin. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S36/37- Wear suitable protective clothing and gloves. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61- Avoid release to the environment. Refer to special instructions/Safety data sheets

## SECTION 16 – OTHER INFORMATION

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2005

**Last Updated:** 05/21/2013

### **Important Notice:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.