

MATERIAL SAFETY DATA SHEET



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nicotine Solution – Nicotine in Polypropylene Glycol Solution

Use of Substance: To be used in liquid for refilling electronic cigarettes.

Supplier/Importer Name: Lazarus Adventures, LLC
1050 McKinley Street
Anoka MN 55303 USA

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to REGULATION (EC) No 1272/2008

Acute oral toxicity: Category 2
Acute dermal toxicity: Category 1
Chronic aquatic toxicity: Category 2

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Symbol(s): T+ - Very toxic
N - Dangerous for the environment

R-phrased(s): R25 - Toxic if swallowed
R27 - Very toxic in contact with skin

Risk Combination Phrases: R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Label Elements

Labeling according Regulation (EC) No 1272/2008 [CLP]

Pictogram (s)



Signal Word

Danger

Hazard Statements

H411 - Toxic to aquatic life with long lasting effects

H310 - Fatal in contact with skin H301 - Toxic

if swallowed

Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P361 - Remove/ Take off immediately all contaminated clothing

P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water

P310 - Immediately call a POISON CENTER or doctor/ physician

P273 - Avoid release to the environment

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

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.

S-phrase(s)

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.

3. COMPOSITION/DATA ON COMPONENTS

Nicotine	Synonyms	Tobacco Water Extract
	IUPAC Name	3-(1-Methyl-2-pyrrolidyl)pyridine
	EINECS Number	200-193-3
	CAS Number	54-11-5
	RTECS	QS5250000
	Molecular Weight	162.2
	Molecular Formula	C ₅ H ₄ NC ₄ H ₇ NCH ₃
	Concentration	10%
	Derived from	Plant
Propylene Glycol	Synonyms	Methyl ethylene glycol
	IUPAC Name	1,2-Propanediol, 1,2-Dihydroxypropane
	EINECS Number	200-338-0
	CAS Number	57-55-6
	RTECS	TY2000000
	Molecular Weight	76.09
	Molecular Formula	C ₃ H ₈ O ₂ / CH ₃ CHOHCH ₂ OH
Concentration	90%	

4. **FIRST - AID MEASURES**

Inhalation:

(P304+P340) If inhaled remove victim to fresh air and keep at rest in a position comfortable for breathing

(P310) Immediately call a POISON CENTER or doctor/ physician

Skin Contact:

(P361) Remove/Take off immediately all contaminated clothing.

(P302+P350) If ON SKIN Gently wash with plenty of soap and water.

Eye Contact:

(P305+351+338) If in eyes, rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing (P337+313) Get medical advice/attention.

Ingestion:

(P301+330+331). If swallowed, rinse mouth does not induce vomiting.

(P301+310) if swallowed: immediately call a POISON CENTER or doctor/ physician.

5. **FIRE-FIGHTING MEASURES**

Extinguishing Media:

Use water spray, dry chemical or carbon dioxide and chemical foam.

Special Fire-Fighting Procedures:

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

**Unusual Fire and Explosion:
Hazards**

Vapors may form explosive mixture with air. Thermal decomposition can lead to release of irritation gases and vapors. Keep product and empty container away from heat and sources of ignition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: (P280) Wear protective gloves/ protective clothing/ eye protection/ face protection.

(P284) Wear respiratory protection. (P361) Remove/Take off immediately all contaminated clothing.

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions:

(P273) Avoid release to the environment.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

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

Precautions to be taken in Handling or Storing: Keep container closed, in a cool, dry area.

7. HANDLING AND STORAGE

Handling:

(P260) Do not breathe fume/gas/mist/vapor/spray.

(P262) Do not get in eyes, on skin, or on clothing.

(P280) Wear protective gloves/ suitable protective clothing/ eye protection/ face protection. (P284) Wear respiratory protection.

Storage:

(P403+233) Store in a well ventilated place. Keep container tightly closed.

Keep away from heat, sources of ignition and incompatibles such as oxidizing agents, acids.

Store under nitrogen in well- closed containers below 20°C, protected from light & moisture.

8. EXPOSURE AND PERSONAL PROTECTION

Exposure controls: Exhaust ventilation or other engineering controls should be provided which maintain airborne concentrations as low as practicable. Ensure that eyewash stations and safety showers are proximal to the work-station location. Wash hands before breaks and immediately after handling the product.

Personal Protection:



Use an appropriate, approved respirator to avoid dust. Wear safety glasses or face shield for operations where eye contact may result. Cover all or similar full-body work clothes, gloves, shoes or coverlets should be worn and laundered daily. Additional covering may be required to avoid dust penetration to areas of sweating or to skin friction points with clothing.

(P264) Wash hands and face thoroughly after working with substance.

(P272) Contaminated work clothing should not be allowed out of the workplace. (P362) Immediately change contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Liquid
Appearance	:	Colorless, Yellow, Brown
odor	:	Characteristic
pH	:	9.7 ± 0.2
Vapor Pressure	:	0.02 hPa @ 20°C
Vapor Density	:	2.6 (relative, air=1)
Boiling Point/Range	:	184-189°C at 76 ^o mmHg pressure
Melting Point/Range	:	-59°C
Decomposition temperature	:	200°C
Flash Point	:	104°C
Auto ignition Temperature	:	>400°C
Water Solubility	:	miscible
Specific Gravity	:	1.029
Solubility	:	Alcohols & Chloroform

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to be avoided:	Exposure to air, exposure to light incompatible materials, Exposure to moist air (>65% RH) or water. Exposure to temperature >20°C.
Incompatibility with various substances	Reactive with oxidizing agents, strong acids and strong base.
Hazardous Decomposition: Products	Nitrogen oxides (NO _x) Carbon monoxide, (CO) Carbon dioxide (CO ₂).
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Possible risk of congenital malformation in the fetus.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be fatal if swallowed.

Skin May be fatal if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure

Prolonged or repeated exposure can cause: Vomiting, Diarrhea, Convulsions, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxicity to Animals:

Acute oral toxicity (LD50)	:	489.0 mg/kg [Rat].
Acute dermal toxicity (LD50)	:	479.0 mg/kg [Rabbit].

12. ECOLOGICAL INFORMATION

Toxicity in Aquatic Habitat

Toxicity to fish LC50: Oncorhynchus mykiss (rainbow trout) - 400 mg/l - 96,0 h

Toxicity to daphnia and : EC50 - Daphnia magna (Water flea) - 24 mg/l - 48 h other aquatic invertebrates

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

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

Special Remarks on the Products of Biodegradation: Not available.

13. DISPOSAL CONSIDERATIONS

Do not discharge into drains or the environment.

Material should be disposed of in keeping with all local and national legislation. Packaging should be disposed of in keeping with all local and national legislation. Handle contaminated containers as product.

14. TRANSPORT INFORMATION

Health 2
Fire 1
Reactivity 0

Dangerous Good: UN 1654
Class : 6.1
Transportation Name : Nicotine
Packing group : II
Packing Instruction : 654

Original packaging: Material is filled in HDPE Bottle.

15. REGULATORY INFORMATION

Risk Phrases

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.

Safety Phrases

S36/37- Wear suitable protective clothing & 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.

16. OTHER INFORMATIONS

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The personnel handling the product should be trained to avoid the eye, skin contact, inhalation and ingestion. The clothes used at work place should not be worn after the work. The safety precaution should be taken as described above under various sections. These data are based on our present knowledge and available web information's. However, they shall not constitute a guarantee for any specific product features on particular condition and person and shall not establish a legally valid contractual relationship.

The MSDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.