

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.15.2018

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## Nicotine Solution

### SECTION 1: Identification

#### Product identifier

**Product name:** Nicotine Solution

**Product code:** S25446

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Not determined or not applicable.

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

##### Manufacturer:

AquaPhoenix Scientific  
860 Gitts Run Road  
Hanover  
PA 17331  
(717) 632-1291

##### Supplier:

Fisher Science Education  
6771 Silver Crest Road  
Nazareth  
PA 18064  
800 955-1177

#### Emergency telephone number:

**United States**

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard(s) identification

#### GHS classification:

Acute toxicity (oral), category 4

Acute toxicity (dermal), category 3

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H302 Harmful if swallowed

H311 Toxic in contact with skin

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

#### Precautionary statements:

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

P273 Avoid release to the environment

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel

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unwell.

P322 Specific measures (see supplemental first aid instructions on this label)

P361 Immediately remove/take off all contaminated clothing

P363 Wash contaminated clothing before reuse

P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell

P391 Collect spillage

P405 Store locked up

P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7732-18-5	Deionized water	>99.25
CAS number: 532-32-1	Sodium benzoate	<0.25
CAS number: 54-11-5	Nicotine	<0.5

**Additional Information:** None

## SECTION 4: First aid measures

### Description of first aid measures

#### General notes:

Not determined or not applicable.

#### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

#### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Immediately remove all contaminated clothing

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

#### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

Remove contact lenses, if present and easy to do

Continue rinsing

Get medical advice/attention

#### After swallowing:

Rinse mouth and then drink plenty of water

Do not induce vomiting

Get medical advice/attention if you feel unwell

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

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### Most important symptoms and effects, both acute and delayed

#### Acute symptoms and effects:

Not determined or not applicable.

#### Delayed symptoms and effects:

Not determined or not applicable.

### Immediate medical attention and special treatment

#### Specific treatment:

Not determined or not applicable.

#### Notes for the doctor:

Not determined or not applicable.

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

### Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion

Shut off sources of ignition

Carbon monoxide and carbon dioxide may form upon combustion

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

### Environmental precautions:

Should not be released into the environment

Prevent from reaching drains, sewer or waterway

### Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)

Dispose of contents / container in accordance with local regulations

### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.

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Avoid breathing mist or vapor.  
Use only with adequate ventilation.

### Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.  
Store away from foodstuffs.

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Not determined or not applicable.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.

#### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

### General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Clear, colorless liquid
<b>Odor</b>	Mild sweet odor
<b>Odor threshold</b>	Not determined or not available.
<b>pH</b>	10.2
<b>Melting point/freezing point</b>	0°C
<b>Initial boiling point/range</b>	100°C
<b>Flash point (closed cup)</b>	101°C (214°F)
<b>Evaporation rate</b>	< 1
<b>Flammability (solid, gas)</b>	Not determined or not available.
<b>Upper flammability/explosive limit</b>	Not determined or not available.
<b>Lower flammability/explosive limit</b>	Not determined or not available.
<b>Vapor pressure</b>	0.051 hPa (0.038 mmHg) at 25°C (77°F)

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<b>Vapor density</b>	5.6 - (Air = 1.0)
<b>Density</b>	Not determined or not available.
<b>Relative density</b>	1.010 g/cm <sup>3</sup> at 20°C (68°F)
<b>Solubilities</b>	Soluble in water.; Soluble in ethanol: 50 g/l
<b>Partition coefficient (n-octanol/water)</b>	log Pow: 1.17
<b>Auto/Self-ignition temperature</b>	Not determined or not available.
<b>Decomposition temperature</b>	Not determined or not available.
<b>Dynamic viscosity</b>	Not determined or not available.
<b>Kinematic viscosity</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

### Other information

#### SECTION 10: Stability and reactivity

##### Reactivity:

Does not react under normal conditions of use and storage.

##### Chemical stability:

Stable under normal conditions of use and storage.

##### Possibility of hazardous reactions:

None under normal conditions of use and storage.

##### Conditions to avoid:

None known.

##### Incompatible materials:

None known.

##### Hazardous decomposition products:

None known.

#### SECTION 11: Toxicological information

##### Acute toxicity

**Assessment:** Harmful if swallowed Toxic in contact with skin

**Product data:** No data available.

##### Substance data:

Name	Route	Result
Nicotine	oral	LD50 - Rat - 50 mg/kg
	dermal	LD50 - Rabbit - 50 mg/kg
	inhalation	ATE : 0.19 mg/l ( Dust or fog). Fatal if inhaled.

##### Skin corrosion/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

##### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

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Name	Result
Sodium benzoate	Causes serious eye irritation.

### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Nicotine	LC50 - Fish - 96 H - 4 mg/l
	EC50 - Crustaceans - 48 H - 0.24 mg/l

### Chronic (long-term) toxicity

**Product data:** No data available.

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**Substance data:** No data available.

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.



## SECTION 13: Disposal considerations

### Disposal methods:



It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

## SECTION 14: Transport information



### United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN1654
UN proper shipping name	Nicotine
UN transport hazard class(es)	6.1  
Packing group	II
Environmental hazards	Marine Pollutant
Special precautions for user	None

### International Maritime Dangerous Goods (IMDG)

UN number	UN1654
UN proper shipping name	Nicotine
UN transport hazard class(es)	6.1  
Packing group	II
Environmental hazards	Marine Pollutant
Special precautions for user	None

### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN1654
UN proper shipping name	Nicotine
UN transport hazard class(es)	6.1  
Packing group	II

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<b>Environmental hazards</b>	Marine Pollutant
<b>Special precautions for user</b>	None

### SECTION 15: Regulatory information

#### United States regulations

##### Inventory listing (TSCA):

7732-18-5	Deionized water	Listed
532-32-1	Sodium benzoate	Listed
54-11-5	Nicotine	Listed

**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

##### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

##### SARA Section 302 extremely hazardous substances:

54-11-5	Nicotine	Listed
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##### SARA Section 313 toxic chemicals:

7732-18-5	Deionized water	Not Listed
532-32-1	Sodium benzoate	Not Listed
54-11-5	Nicotine	Listed

##### CERCLA:

54-11-5	Nicotine	Listed	100 lbs.
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##### RCRA:

54-11-5	Nicotine	Listed	P075
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**Section 112(r) of the Clean Air Act (CAA):** Not determined.

##### Massachusetts Right to Know:

7732-18-5	Deionized water	Not Listed
532-32-1	Sodium benzoate	Not Listed
54-11-5	Nicotine	Listed

##### New Jersey Right to Know:

7732-18-5	Deionized water	Not Listed
532-32-1	Sodium benzoate	Not Listed
54-11-5	Nicotine	Listed

##### New York Right to Know:

7732-18-5	Deionized water	Not Listed
532-32-1	Sodium benzoate	Not Listed



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54-11-5	Nicotine	Listed
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### Pennsylvania Right to Know:

7732-18-5	Deionized water	Not Listed
532-32-1	Sodium benzoate	Not Listed
54-11-5	Nicotine	Listed

### California Proposition 65:

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

54-11-5	Nicotine
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## SECTION 16: Other information

**Abbreviations and Acronyms:** None

### Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 3-0-0

**HMIS:** 3-0-0-X

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**End of Safety Data Sheet**