

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 1 of 9

## Nickel Nitrate Hexahydrate

### SECTION 1: Identification

#### Product identifier

**Product name:** Nickel Nitrate Hexahydrate

**Product code:** S25443A

#### 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:

Oxidizing solids, category 2

Acute toxicity (oral), category 4

Acute toxicity (inhalation), category 4

Skin irritation, category 2

Serious eye damage, category 1

Respiratory sensitization, category 1

Skin sensitization, category 1

Germ cell mutagenicity, category 2

Carcinogenicity, category 1A

Reproductive toxicity, category 1B

Specific target organ toxicity - repeated exposure, category 1

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H272 May intensify fire; oxidizer

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 2 of 9

## Nickel Nitrate Hexahydrate

H302 Harmful if swallowed  
H332 Harmful if inhaled  
H315 Causes skin irritation  
H318 Causes serious eye damage  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H317 May cause an allergic skin reaction  
H341 Suspected of causing genetic defects  
H350 May cause cancer  
H360 May damage fertility or the unborn child  
H372 Causes damage to organs through prolonged or repeated exposure  
H400 Very toxic to aquatic life  
H410 Very toxic to aquatic life with long lasting effects

### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking  
P220 Keep/Store away from clothing/combustible materials  
P221 Take any precaution to avoid mixing with combustibles  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P264 Wash skin thoroughly after handling  
P270 Do not eat, drink or smoke when using this product  
P271 Use only outdoors or in a well-ventilated area  
P285 In case of inadequate ventilation wear respiratory protection  
P272 Contaminated work clothing should not be allowed out of the workplace  
P201 Obtain special instructions before use  
P202 Do not handle until all safety precautions have been read and understood  
P260 Do not breathe dust/fume/gas/mist/vapors/spray  
P273 Avoid release to the environment  
P370+P378 In case of fire: Use agents recommended in section 5 for extinction  
P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.  
P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P362 Take off contaminated clothing and wash before reuse  
P302+P352 If on skin: Wash with soap and water  
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.  
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention  
P308+P313 If exposed or concerned: Get medical advice/attention  
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: 13478-00-7	Nickel nitrate hexahydrate	100

**Additional Information:** None

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 3 of 9

## Nickel Nitrate Hexahydrate

### 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

Move to fresh air

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

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

##### After eye contact:

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

If symptoms develop or persist, seek medical attention

Remove contact lens(es) if able to do so during rinsing

Immediately call a POISON CONTROL CENTER or seek medical attention

##### After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

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

Do not induce vomiting

Rinse mouth and then drink plenty of water

#### 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

Will release oxygen when heated, intensifying a fire

#### Special protective equipment for firefighters:

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 4 of 9

## Nickel Nitrate Hexahydrate

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

### Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion  
Heating causes a rise in pressure, risk of bursting and 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:

Wear protective eye wear, gloves and clothing  
Sweep or scoop up solid material while minimizing dust generation  
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:

Use only with adequate ventilation.  
Avoid breathing dust.  
Do not eat, drink, smoke or use personal products when handling chemical substances.

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

Keep container tightly sealed.  
Keep container dry.  
Store in a cool, well-ventilated area.  
Store away from flammable and combustible materials (paper, wood).  
Store away from reducing agents (zinc, alkaline metals, formic acid).

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Nickel nitrate hexahydrate	13478-00-7	OSHA PEL 1 mg/m <sup>3</sup> , as Ni
ACGIH	Nickel nitrate hexahydrate	13478-00-7	ACGIH TLV 0.1 mg/m <sup>3</sup> , inhalable fraction, as Ni

### Biological limit values:

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

### Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.  
Biological monitoring may also be appropriate for some substances.

### Appropriate engineering controls:

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 5 of 9

## Nickel Nitrate Hexahydrate

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.

Wear appropriate clothing to prevent any possibility of skin contact.

#### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

### General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Dark green crystalline solid
<b>Odor</b>	Characterisitic odor
<b>Odor threshold</b>	Not determined or not available.
<b>pH</b>	4.0
<b>Melting point/freezing point</b>	56°C (133°F) - lit.
<b>Initial boiling point/range</b>	137°C (278.60°F)
<b>Flash point (closed cup)</b>	Not determined or not available.
<b>Evaporation rate</b>	Not determined or not available.
<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>	Not determined or not available.
<b>Vapor density</b>	10.0 (Air = 1)
<b>Density</b>	Not determined or not available.
<b>Relative density</b>	2.05 g/cm <sup>3</sup> at 25°C (77°F)
<b>Solubilities</b>	Insoluble.
<b>Partition coefficient (n-octanol/water)</b>	Not determined or not available.
<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

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 6 of 9

## Nickel Nitrate Hexahydrate

### 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:**

Incompatible materials.

**Incompatible materials:**

Organic materials, Powdered metals, Strong reducing agents, acids.

**Hazardous decomposition products:**

None known.

### SECTION 11: Toxicological information

**Acute toxicity**

**Assessment:** Harmful if swallowed Harmful if inhaled

**Product data:** No data available.

**Substance data:**

Name	Route	Result
Nickel nitrate hexahydrate	oral	LD50 - Rat - 1620 mg/kg

**Skin corrosion/irritation**

**Assessment:** Causes skin irritation

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel nitrate hexahydrate	Causes skin irritation.

**Serious eye damage/irritation**

**Assessment:** Causes serious eye damage

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel nitrate hexahydrate	Causes serious eye damage.

**Respiratory or skin sensitization**

**Assessment:** May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel nitrate hexahydrate	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	May cause an allergic skin reaction.

**Carcinogenicity**

**Assessment:** May cause cancer

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 7 of 9

## Nickel Nitrate Hexahydrate

**Product data:** No data available.

**Substance data:**

Name	Species	Result
Nickel nitrate hexahydrate	Nickel Nitrate,Hexahydrate	May cause cancer.

**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:** Suspected of causing genetic defects

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel nitrate hexahydrate	Suspected of causing genetic defects.

### Reproductive toxicity

**Assessment:** May damage fertility or the unborn child

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel nitrate hexahydrate	May damage fertility or the unborn child.

### Specific target organ toxicity (single exposure)

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

**Product data:** No data available.

**Substance data:**

Name	Result
Nickel nitrate hexahydrate	Causes damage to organs through prolonged or repeated exposure.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Causes damage to organs through prolonged or repeated exposure

**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:** No data available.

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 8 of 9

## Nickel Nitrate Hexahydrate

### 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

## SECTION 14: Transport information



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

<b>UN number</b>	UN2725
<b>UN proper shipping name</b>	Nickel nitrate
<b>UN transport hazard class(es)</b>	5.1  
<b>Packing group</b>	III
<b>Environmental hazards</b>	Marine Pollutant
<b>Special precautions for user</b>	None

### International Maritime Dangerous Goods (IMDG)

<b>UN number</b>	UN2725
<b>UN proper shipping name</b>	Nickel nitrate
<b>UN transport hazard class(es)</b>	5.1  
<b>Packing group</b>	III
<b>Environmental hazards</b>	Marine Pollutant
<b>Special precautions for user</b>	None

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

<b>UN number</b>	UN2725
<b>UN proper shipping name</b>	Nickel nitrate
<b>UN transport hazard class(es)</b>	5.1  
<b>Packing group</b>	III



# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.16.2018

Page 9 of 9

## Nickel Nitrate Hexahydrate

Environmental hazards	Marine Pollutant
Special precautions for user	None

### SECTION 15: Regulatory information

#### United States regulations

##### Inventory listing (TSCA):

13478-00-7	Nickel nitrate hexahydrate	Not Listed
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**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:** Not determined.

##### SARA Section 313 toxic chemicals:

13478-00-7	Nickel nitrate hexahydrate	Not Listed
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**CERCLA:** Not determined.

**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

##### Massachusetts Right to Know:

13478-00-7	Nickel nitrate hexahydrate	Listed
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##### New Jersey Right to Know:

13478-00-7	Nickel nitrate hexahydrate	Listed
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##### New York Right to Know:

13478-00-7	Nickel nitrate hexahydrate	Listed
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##### Pennsylvania Right to Know:

13478-00-7	Nickel nitrate hexahydrate	Listed
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**California Proposition 65:** None of the ingredients are listed.

### SECTION 16: Other information

**Abbreviations and Acronyms:** None

#### Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 3-0-2-ox

**HMIS:** 3-0-2-X

Initial preparation date: 01.16.2018

End of Safety Data Sheet