

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 07.07.2017

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## Nitric Acid, Concentrated, ACS

### SECTION 1: Identification

#### Product identifier

**Product name:** Nitric Acid, Concentrated, ACS

**Product code:** DUNA1003-L

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

**Relevant identified uses:** Laboratory Chemicals

**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:

Dubois Chemicals Inc.  
3630 East Kemper Rd  
Cincinnati  
OH 45241  
(800) 438-2647

#### Emergency telephone number:

**United States**

Emergency Phone No. (800) 255-3924

### SECTION 2: Hazard(s) identification

#### GHS classification:

Oxidizing liquids, category 2

Skin corrosion, category 1A

Serious eye damage, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H272 May intensify fire; oxidizer

H318 Causes serious eye damage

H314 Causes severe skin burns and eye damage

#### 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

P260 Do not breathe dust/fume/gas/mist/vapors/spray

P264 Wash skin thoroughly after handling

P370+P378 In case of fire: Use agents recommended in section 5 for extinction

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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.

P321 Specific treatment (see supplemental first aid instructions on this label).

P363 Wash contaminated clothing before reuse

P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician

P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

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	Water	>30
CAS number: 7697-37-2	Nitric Acid	<70

**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

Move exposed individual to fresh air

Immediately call a POISON CONTROL CENTER or seek medical attention

#### 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

Immediately call a POISON CONTROL CENTER or seek medical attention

#### 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

Immediately call a POISON CONTROL CENTER or seek medical attention

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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:

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

### Special precautions:

Not determined or not applicable.

## 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  
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:

Use only with adequate ventilation.

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Avoid breathing mist or vapor.

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

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

Keep container tightly sealed.

Protect from freezing and physical damage.

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)	Nitric Acid	7697-37-2	OSHA PEL TWA 2 ppm
	Nitric Acid	7697-37-2	OSHA PEL TWA 5 mg/m <sup>3</sup>
ACGIH	Nitric Acid	7697-37-2	ACGIH TLV TWA 2 ppm
	Nitric Acid	7697-37-2	ACGIH TLV STEL 4 ppm
NIOSH	Nitric Acid	7697-37-2	NIOSH REL TWA 2 ppm
	Nitric Acid	7697-37-2	NIOSH REL TWA 5 mg/m <sup>3</sup>
	Nitric Acid	7697-37-2	NIOSH REL ST 4 ppm
	Nitric Acid	7697-37-2	NIOSH REL ST 10 mg/m <sup>3</sup>

### 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:

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.

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### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Clear, colorless to light yellow liquid
<b>Odor</b>	Strong acid
<b>Odor threshold</b>	Not determined or not available.
<b>pH</b>	<1
<b>Melting point/freezing point</b>	-41 °C
<b>Initial boiling point/range</b>	120.5 °C
<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>	0.94 kPa (20 °C)
<b>Vapor density</b>	Not determined or not available.
<b>Density</b>	Not determined or not available.
<b>Relative density</b>	1.40
<b>Solubilities</b>	Soluble in water.
<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

### 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

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### Acute toxicity

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

**Product data:** No data available.

**Substance data:** No data available.

### Skin corrosion/irritation

**Assessment:** Causes severe skin burns and eye damage

**Product data:** No data available.

**Substance data:**

Name	Result
Nitric Acid	Causes severe skin burns and eye damage.

### Serious eye damage/irritation

**Assessment:** Causes serious eye damage

**Product data:** No data available.

**Substance data:** No data available.

### 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.

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**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

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

**Product data:** No data available.

**Substance data:** No data available.

#### Chronic (long-term) toxicity

**Product data:** No data available.

**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

### SECTION 14: Transport information

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

<b>UN number</b>	2031
<b>UN proper shipping name</b>	Nitric Acid
<b>UN transport hazard class(es)</b>	8 (5.1) 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

#### International Maritime Dangerous Goods (IMDG)

<b>UN number</b>	2031
<b>UN proper shipping name</b>	Nitric Acid
<b>UN transport hazard class(es)</b>	8 (5.1) 
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>Special precautions for user</b>	None

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

<b>UN number</b>	2031		
<b>UN proper shipping name</b>	Nitric Acid		
<b>UN transport hazard class(es)</b>	8 (5.1)		
<b>Packing group</b>	II		
<b>Environmental hazards</b>	None		
<b>Special precautions for user</b>	None		

<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
<b>Bulk Name</b>	None
<b>Ship type</b>	None
<b>Pollution category</b>	None

**SECTION 15: Regulatory information**

**United States regulations**

**Inventory listing (TSCA):**

7697-37-2	Nitric Acid	Listed
7732-18-5	Water	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:** Not determined.

**SARA Section 313 toxic chemicals:**

7697-37-2	Nitric Acid	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:**

7697-37-2	Nitric Acid	Listed
7732-18-5	Water	Not Listed

**New Jersey Right to Know:**

7697-37-2	Nitric Acid	Listed
7732-18-5	Water	Not Listed

**New York Right to Know:**

7697-37-2	Nitric Acid	Listed
7732-18-5	Water	Not Listed



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### Pennsylvania Right to Know:

7697-37-2	Nitric Acid	Listed
7732-18-5	Water	Not Listed

California Proposition 65: Not determined.

## 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:** 3-0-0

**HMIS:** 3-0-0

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**End of Safety Data Sheet**