

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 01.06.2015**Ninhydrin, 2% w/v Solution****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Ninhydrin, 2% w/v Solution**Manufacturer/Supplier Article number:** NH2000SS**Recommended uses of the product and restrictions on use:****Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331  
1-717-632-1291

**Emergency telephone number:****ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

**SECTION 2: Hazards identification****Classification of the substance or mixture:****Flammable**

Flammable liquids, category 3

Flammable Liquids Cat. 3.

**Signal word:** Warning**Hazard statements:**

Flammable liquid and vapour.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/light/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of fire, use agents recommended in section 5 for extinction.

Store in a well ventilated place. Keep cool.

Dispose of contents and container to an approved waste disposal plant.

**Other Non-GHS Classification:** None**SECTION 3: Composition/information on ingredients****Ingredients:**

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<b>Ninhydrin, 2% w/v Solution</b>		
<b>Ingredients:</b>		
CAS 64-17-5	Ethanol	55.23 %
CAS 7732-18-5	Water	42.77 %
CAS 485-47-2	Ninhydrin	2 %
Percentages are by weight		

**SECTION 4: First aid measures****Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. If breathing is difficult give oxygen. Seek medical attention if cough or respiratory irritation develops.

**After skin contact:**

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical attention if irritation persists or if concerned.

**After eye contact:**

Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse or flush exposed eye gently using water for 15-20 minutes. Consult a physician if irritation persists.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

**Most important symptoms and effects, both acute and delayed:**

Irritation. Nausea. Headache. Shortness of breath.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Water spray can keep containers cool.

**Unsuitable extinguishing agents:**

Water may be ineffective on fire.

**Special hazards arising from the substance or mixture:**

Vapors are heavier than air. Be aware of vapor accumulating in low-lying areas. Flashback may occur along vapor trail. Remove sources of ignition.

**Advice for firefighters:****Protective equipment:**

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

**Additional information (precautions):**

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

**SECTION 6: Accidental release measures**

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Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway.

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

Refer to Section 8. Wear protective eyewear, gloves, and clothing. Absorb with suitable material and place in chemical waste container. Ventilate area of spill. Dispose of empty containers as unused product. Refer to Section 13.

**Reference to other sections:** None**SECTION 7: Handling and storage****Precautions for safe handling:**

Wear protective eyewear, gloves, and clothing. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Refer to Section 8.

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

Store in a cool location. Provide ventilation for containers. Keep container tightly closed. Store with like hazards. Protect from freezing and physical damage.

**SECTION 8: Exposure controls/personal protection****Control parameters:**

64-17-5, Ethanol, ACGIH TLV: 1880 mg/m<sup>3</sup>.  
64-17-5, Ethanol, OSHA PEL: 1900 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide adequate ventilation to ensure the Lower Explosive Limit (LEL) is not reached or Occupational Exposure Level (OEL) is reached. Ensure equipment is approved for use with flammable liquids.

**Respiratory protection:**

Use suitable respiratory protective device when high concentrations are present. If exposure limit is exceeded, a full-face respirator with organic cartridge may be worn.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wear protective clothing.

**Eye protection:**

Safety glasses with side shields or goggles.

**General hygienic measures:**

Wash hands before breaks and at the end of work. Before re-wearing, wash contaminated clothing. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	clear, pale yellow liquid	<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Alcohol	<b>Vapor pressure at 20°C:</b>	73 mm Hg @ 20 C
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	1.59
<b>pH-value:</b>	Not determined	<b>Relative density:</b>	0.790 @ 20°C

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<b>Ninhydrin, 2% w/v Solution</b>			
<b>Melting/Freezing point:</b>	- 114.1C	<b>Solubilities:</b>	Slightly water soluble.
<b>Boiling point/Boiling range:</b>	78 C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	16.6C	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Flammable	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	Not determined		

**SECTION 10: Stability and reactivity****Reactivity:** None**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None known.

**Conditions to avoid:**

Incompatible materials. Heat, hot surfaces, open flames, and sources of ignition.

**Incompatible materials:**

Strong oxidizers, acids, and bases. Acetyl chloride, acetyl bromide, concentrated sulfuric acid and strong hydrogen peroxide.

**Hazardous decomposition products:**Carbon oxides (CO, CO<sub>2</sub>). Acrid and irritating fumes.**SECTION 11: Toxicological information****Acute Toxicity:****Dermal:**

64-17-5 Ethanol LD-50 15800 mg/kg (rabbit).

**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:** No additional information.**Serious eye damage/irritation:** No additional information.**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:** No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:** No additional information.**STOT-single and repeated exposure:** No additional information.**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information****Ecotoxicity:**

Aquatic Tox., Ethanol has a slight acute and chronic toxicity to aquatic life.

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Aqueous solution has high mobility in soil.

**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Absorb with suitable absorbent material such as sand or earth and containerize for disposal. Ventilate area of leak or spill. Have fire extinguishing agent available in case of fire. Eliminate all sources of ignition. Use spark-proof tools and explosion-proof equipment. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14: Transport information****US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

UN1170

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Ethanol Solution.**Hazard Class:** 3**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Ethanol Solution.**Hazard Class:** 3**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Fire

**SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

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All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

**Proposition 65 (California):****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

64-17-5 Ethanol.

**Canada****Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

**SECTION 16: Other information**

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. Note. 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:** 1-0-0**HMIS:** 1-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).
DOT	US Department of Transportation.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).

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- NFPA National Fire Protection Association (USA).  
HMIS Hazardous Materials Identification System (USA).  
WHMIS Workplace Hazardous Materials Information System (Canada).  
DNEL Derived No-Effect Level (REACH).