

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.08.2015**Hydrazine Liquid SS****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Hydrazine Liquid SS**Manufacturer/Supplier Article number:** HL1820SS**Recommended uses of the product and restrictions on use:** Laboratory**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 2

**Irritant**

Eye irritation, category 2A

Specific target organ toxicity following single exposure, category 3

Flammable liq. 2.

Eye Irrit. 2.

Stot SE. 3.

Signal word: Danger**Hazard statements:**

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

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 container tightly closed.

Wash thoroughly after handling.

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.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing dust/fume/gas/mist/vapors/spray.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.08.2015**Hydrazine Liquid SS**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

If eye irritation persists get medical advice/attention.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use ... for extinction.

Store in a well ventilated place. Keep container tightly closed.

Store in a well ventilated place. Keep cool.

Store locked up.

Dispose of contents/container.

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

Ingredients:		
CAS 67-63-0	Isopropanol	87.98 %
CAS 7647-01-0	Hydrochloric Acid	12.02 %
		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. Seek medical advice if discomfort or irritation persists.

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. Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

After swallowing:

Induce vomiting. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

Most important symptoms and effects, both acute and delayed:

Shortness of breath. Irritation. Nausea. Headache.

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 be used to dilute spills to nonflammable mixtures.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.08.2015

Hydrazine Liquid SS**Unsuitable extinguishing agents:** None**Special hazards arising from the substance or mixture:** None**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. Do not inhale gases, fumes, dust, mist, vapor, and aerosols.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Keep away from ignition sources. Protect from heat. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Should not be released into environment.

Methods and material for containment and cleaning up:

Use spark-proof tools and explosion-proof equipment. Have fire extinguishing agent available in case of fire. Always obey local regulations. Refer to Section 13. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. Remove all sources of ignition. Contain spill then collect. Do not flush to sewer. Absorb with a noncombustible absorbent material such as sand or earth and containerize for disposal. Ventilate area of spill.

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

Do not eat, drink, smoke, or use personal products when handling chemical substances. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Empty containers retain product residue and can be dangerous.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Store securely in flammable storage area away from sources of ignition. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Keep container tightly closed. Protect from freezing and physical damage. Store away from incompatible materials.

SECTION 8: Exposure controls/personal protection**Control parameters:**67-63-0, Isopropanol, ACGIH: 400 ppm STEL; 200 ppm TWA.
67-63-0, Isopropanol, NIOSH: 500 ppm STEL; 1225 mg/m³ STEL.
67-63-0, Isopropanol, NIOSH: 400 ppm TWA; 980 mg/m³ TWA.**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.

Respiratory protection:

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.08.2015

Hydrazine Liquid SS

Protection of skin:	Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.
Eye protection:	Safety glasses with side shields or goggles.
General hygienic measures:	Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Perform routine housekeeping. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear colorless liquid	Explosion limit lower:	2%
		Explosion limit upper:	12.7%
Odor:	Alcohol	Vapor pressure at 20°C:	Approx. 33 at 20°C
Odor threshold:	Not available	Vapor density:	Heavier than air
pH-value:	Not available	Relative density:	0.785 g/mL at 25°C
Melting/Freezing point:	Below -88°C	Solubilities:	Infinite solubility.
Boiling point/Boiling range:	Approx. 82°C	Partition coefficient (n-octanol/water):	log pow: 0.05
Flash point (closed cup):	12.0°C	Auto/Self-ignition temperature:	425.0°C
Evaporation rate:	3.0	Decomposition temperature:	Not available
Flammability (solid, gaseous):	Flammable	Viscosity:	a. Kinematic: Not available b. Dynamic: Not available
Density at 20°C:	Not available		

SECTION 10: Stability and reactivity**Reactivity:**

None under normal processing.

Chemical stability:

No decomposition if used and stored according to specifications. Stable under normal conditions.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Incompatible materials.

Incompatible materials:

Strong oxidizers, heat, sparks, open flames. Will attack some forms of rubber, plastics and coatings. May react with metallic aluminum and generate hydrogen gas.

Hazardous decomposition products:

Toxic oxides of carbon, acrid and irritating fumes.

SECTION 11: Toxicological information**Acute Toxicity:****Dermal:**

LD-50 15800 mg/kg (rabbit).

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

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No additional information.

SECTION 12: Ecological information**Ecotoxicity:**

Water Flea., 48 Hr EC50 Daphnia magna: 13299 mg/L.

Algae, 96-Hr EC50 Desmodesmus subspicatus: > 1000 mg/L.

Algae, 72 Hr EC50 Desmodesmus subspicatus: > 1000 mg/L.

Fish., 96 Hr LC50 Pimephales promelas: 9640 mg/L.

Fish., 96 Hr LC50 Pimephales promelas: 11130 mg/L.

Fish., 96-Hr LC50 Lepomis macrochirus: > 1400000 µg/L.

Persistence and degradability: No additional information.**Bioaccumulative potential:** No additional information.**Mobility in soil:**

Aqueous solution has high mobility in soil.

Other adverse effects:

Isopropanol has acute toxicity with effects of death in animals and low growth rates and death in plants.

Chronic toxic effects, may be shortened life span, lower fertility, reproductive problems, and changes in appearance and/or behavior in animals.

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). Remove all sources of ignition. Do not flush to sewer. Have fire extinguishing agent available in case of fire. 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

UN2924

Limited Quantity Exception:

None

Bulk:**RQ (if applicable):** None**Non Bulk:****RQ (if applicable):** None

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.08.2015**Hydrazine Liquid SS**

Proper shipping Name: Flammable liquid, corrosive, n.o.s. (Isopropanol Solution, Hydrochloric Acid Solution).

Hazard Class: 3, 8

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Proper shipping Name: Flammable liquid, corrosive, n.o.s. (Isopropanol Solution, Hydrochloric Acid Solution).

Hazard Class: 3, 8

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):**

Acute, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):

67-63-0 Isopropanol.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) :

All ingredients are listed.

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

7647-01-0 Hydrochloric Acid 5000 lbs.

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:

None of the ingredients are listed.

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

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

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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: 2-0-0**HMIS:** 2-0-0**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).
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).