

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 12.14.2015

**Hardness Indicator Liquid**

**SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Hardness Indicator Liquid

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** FTR3

**Recommended uses of the product and restrictions on use:** Laboratory reagent hardness indicator

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
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



**Corrosive**

Corrosive to metals, category 1  
Skin corrosion, category 1C



**Health hazard**

Carcinogenicity, category 2



**Irritant**

Skin sensitization, category 1

**Signal word:** Danger

**Hazard statements:**

Flammable liquid and vapor.

Suspected of causing cancer.

May cause an allergic skin reaction.

**Precautionary statements:**

Read label before use.

Obtain special instructions before use.

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

Wash skin thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

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

Do not handle until all safety precautions have been read and understood.

Keep container tightly closed.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date** : 12.14.2015

**Hardness Indicator Liquid**

Use only non-sparking tools.

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

In case of fire: Use agents recommended in section 5 for extinction.

If on skin: Wash with soap and water.

If skin irritation or a rash occurs: Get medical advice/attention.

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

Wash contaminated clothing before reuse.

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.

If swallowed: Rinse mouth. Do not induce vomiting.

If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Store in a well ventilated place. Keep cool.

Store locked up.

Dispose of contents and container as instructed in Section 13.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

<b>Ingredients:</b>		
CAS 67-63-0	Isopropanol	<5 %
CAS 5470-11-1	Hydroxylamine Hydrochloride	1-10 %
CAS 3147-14-6	Calmagite	<0.1 %
CAS 57-55-6	Propylene Glycol	>90 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

**After skin contact:**

Wash hands and exposed skin with soap and plenty of water. Immediately seek medical assistance.

**After eye contact:**

Protect unexposed eye. Immediately flush eyes with water for at least 15 minutes. Remove contact lens(es) if able to do so during rinsing. Immediately get medical assistance.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Seek medical attention if irritation, discomfort, or vomiting persists. Never give anything by mouth to an unconscious person.

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

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 12.14.2015

**Hardness Indicator Liquid**

Irritation.

**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:**

Alcohol foam.

**Unsuitable extinguishing agents:** None

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

May react violently with strong oxidizers.

**Advice for firefighters:**

**Protective equipment:**

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

**Additional information (precautions):**

Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

**SECTION 6: Accidental release measures**

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

Ensure adequate ventilation. Ensure that air-handling systems are operational.

**Environmental precautions:**

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

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

Wear protective eyewear, gloves, and clothing. Always obey local regulations. Containerize for disposal. Refer to Section 13. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Keep in suitable closed containers for disposal. Refer to Section 8. Remove all ignition and spark-creating sources from the spill area.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Do not eat, drink, smoke, or use personal products when handling chemical substances. Refer to Section 13.

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

Store in a cool location. Protect from freezing and physical damage. Keep container tightly closed. Keep away from oxidizers. Protect from sparks, flames and other ignition sources.

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



**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 12.14.2015

**Hardness Indicator Liquid**

<b>Control parameters:</b>	67-63-0, Isopropanol, ACGIH TLV 200 ppm, 492 mg/m <sup>3</sup> TWA. 67-63-0, Isopropanol, ACGIH TLV 400 ppm, 980 mg/m <sup>3</sup> TWA. 5470-11-1, Hydroxylamine Hydrochloride, PEL: 15 mg/m <sup>3</sup> as inhalable dust; 5 mg/m <sup>3</sup> as respirable dust. 5470-11-1, Hydroxylamine Hydrochloride, TLV: 10 mg/m <sup>3</sup> as inhalable dust; 3 mg/m <sup>3</sup> as respirable dust.
<b>Appropriate engineering controls:</b>	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.
<b>Respiratory protection:</b>	Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.
<b>Protection of skin:</b>	Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.
<b>Eye protection:</b>	Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.
<b>General hygienic measures:</b>	Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Dark red liquid	<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Fruity	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	1.09	<b>Relative density:</b>	1.01
<b>Melting/Freezing point:</b>	Not determined	<b>Solubilities:</b>	Soluble in water.; Soluble in acid.
<b>Boiling point/Boiling range:</b>	118°C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	25.7°C (78.3°F)	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	0.05	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Not determined	<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:**

Nonreactive under normal conditions.

**Chemical stability:**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date** : 12.14.2015

**Hardness Indicator Liquid**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Contact with heat, sparks, open flames or other ignition sources. Heating to decomposition.

**Incompatible materials:**

Oxidizers.

**Hazardous decomposition products:**

Toxic fumes of chlorides, carbon dioxide, and carbon monoxide.

**SECTION 11: Toxicological information**

**Acute Toxicity:**

**Oral:**

LD50 2701 mg/kg (Rat).

**Dermal:**

LD50 - 20921 mg/kg (Rat).

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Irritating to skin.

**Serious eye damage/irritation:**

Causes eye damage.

**Respiratory or skin sensitization:**

Skin sensitizer.

**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:**

Toxicity to fish = LC50 *Leuciscus idus* 48h = 1-10 mg/l, Hydroxylamine Hydrochloride (5470-11-1).

**Persistence and degradability:** No additional information.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date** : 12.14.2015

**Hardness Indicator Liquid**

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). 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

UN 2924

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Flammable liquids, corrosive, n.o.s. (<10% Isopropanol/Hydroxylamine Hydrochloride Solution).

**Hazard Class:** 3, 8

**Packing Group:** III.

**Marine Pollutant (if applicable):** No

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Flammable liquids, corrosive, n.o.s. (<10% Isopropanol/Hydroxylamine Hydrochloride Solution).

**Hazard Class:** 3, 8

**Packing Group:** III.

**Marine Pollutant (if applicable):** No

**Comments:** None



**SECTION 15: Regulatory information**

**United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings):**

Acute, 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) :**

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.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date** : 12.14.2015

**Hardness Indicator Liquid**

**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 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:** 2-3-0

**HMIS:** 2-3-0

**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).