

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 03.01.2018

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Hardness Indicator Liquid

SECTION 1: Identification

Product identifier

Product name: Hardness Indicator Liquid

Product code: FTR3SS

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

Emergency telephone number:

United States

Emergency Telephone (800) 255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Corrosive to metals, category 1

Flammable liquids, category 3

Skin corrosion, category 1C

Carcinogenicity, category 2

Skin sensitization, category 1

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H290 May be corrosive to metals.

H226 Flammable liquid and vapor.

H314 Causes severe skin burns and eye damage.

H351 Suspected of causing cancer.

H317 May cause an allergic skin reaction.

Precautionary statements:

P234 Keep only in original container.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

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P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
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.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P390 Absorb spillage to prevent material damage
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378 In case of fire: Use manufacturer/supplier or the competent authority to specify appropriate media for extinction.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P363 Wash contaminated clothing before reuse
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P321 Specific treatment (see supplemental first aid instruction on this label).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 If exposed or concerned: Get medical advice/attention
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P406 Store in corrosive resistant container with a resistant inner liner.
P403+P235 Store in a well ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 3147-14-6	Calmagite	<0.1
CAS number: 57-55-6	Propylene Glycol	>90
CAS number: 67-63-0	Isopropanol	<5
CAS number: 5470-11-1	Hydroxylamine Hydrochloride	1-10

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

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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

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 Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

Unsuitable extinguishing media:

Do not use water stream, as this may spread fire

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Vapors can flow to distant ignition sources and flashback

Liquid is volatile and may generate an explosive atmosphere

May form corrosive mixtures with water

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Special protective equipment for firefighters:

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

Special precautions:

Shut off sources of ignition

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

Beware of vapors accumulating to form explosive concentrations

Vapors can accumulate in low areas

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

Use spark-proof tools and explosion-proof equipment

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.

Avoid breathing mist or vapor.

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

Take precautionary measures against electrostatic discharges.

Use only non-sparking tools.

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 all ignition sources (open flames, hot surfaces, direct sunlight, spark sources).

Store in corrosive resistant container with a resistant inner lining.

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
WEEL	Propylene Glycol	57-55-6	WEEL TWA 10.0 mg/m ³
ACGIH	Isopropanol	67-63-0	ACGIH TLV STEL 400 ppm
	Isopropanol	67-63-0	ACGIH TLV TWA 200 ppm

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
NIOSH	Isopropanol	67-63-0	NIOSH IDLH 2,000 ppm
	Isopropanol	67-63-0	NIOSH STEL 500 ppm, 1,225 mg/m ³
	Isopropanol	67-63-0	NIOSH TWA 400 ppm, 980 mg/m ³
United States (OSHA)	Isopropanol	67-63-0	OSHA PEL TWA 400 ppm, 980 mg/m ³

Biological limit values:

Substance	Identifier	Determinant	Sampling time	Permissible limits
Isopropanol	67-63-0	Acetone	End of shift at end of workweek.	40 mg/L

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.

Use explosion-proof ventilation equipment.

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

Appearance	Dark red liquid
Odor	Fruity
Odor threshold	Not determined
pH	1.09
Melting point/freezing point	Not determined

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Initial boiling point/range	118°C
Flash point (closed cup)	25.7°C (78.3°F)
Evaporation rate	0.05
Flammability (solid, gas)	Not determined
Upper flammability/explosive limit	Not determined
Lower flammability/explosive limit	Not determined
Vapor pressure	Not determined
Vapor density	Not determined
Density	Not determined
Relative density	1.01
Solubilities	Soluble in water; Soluble in acid
Partition coefficient (n-octanol/water)	Not determined
Auto/Self-ignition temperature	Not determined
Decomposition temperature	Not determined
Dynamic viscosity	Not determined
Kinematic viscosity	Not determined
Explosive properties	Not determined
Oxidizing properties	Not determined

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

Acute toxicity

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

Product data: No data available.

Substance data:

Name	Route	Result
Hydroxylamine Hydrochloride	oral	LD50: Rat - 141 mg/kg
Propylene Glycol	oral	LD50 Rat: 21,000 - 33,700 mg/kg

Skin corrosion/irritation

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Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data:

Name	Result
Hydroxylamine Hydrochloride	Causes skin irritation.
Calmagite	Irritating to the skin.

Serious eye damage/irritation

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

Product data: No data available.

Substance data:

Name	Result
Isopropanol	Causes serious eye irritation.
Hydroxylamine Hydrochloride	Causes serious eye irritation.
Calmagite	Irritating effect on the eyes.

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction

Product data: No data available.

Substance data:

Name	Result
Hydroxylamine Hydrochloride	May cause an allergic skin reaction.

Carcinogenicity

Assessment: Suspected of causing cancer

Product data: No data available.

Substance data:

Name	Species	Result
Hydroxylamine Hydrochloride	Hydroxylammonium Chloride	Suspected of causing cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Isopropanol	Group 3 - Not classifiable as to its carcinogenicity to humans

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:

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Name	Result
Isopropanol	Specific Target Organ Toxicity, Single Exposure - May cause drowsiness or dizziness.
Hydroxylamine Hydrochloride	Specific Target Organ Toxicity, Repeated Exposure - May cause damage to organs through prolonged or repeated exposure.
Calmagite	Component affects the respiratory system.

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.

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:

Name	Result
Propylene Glycol	LC50 (4 days): 40.613 g/L

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)



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UN number	UN 2924
UN proper shipping name	Flammable liquids, corrosive, N.O.S. Isopropanol, Hydroxylaminechloride Solution
UN transport hazard class(es)	3 (8)  
Packing group	III
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN 2924
UN proper shipping name	Flammable liquids, corrosive, N.O.S. Isopropanol, Hydroxylaminechloride Solution
UN transport hazard class(es)	3 (8)  
Packing group	III
Environmental hazards	None
Special precautions for user	None

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

UN number	UN 2924
UN proper shipping name	Flammable liquids, corrosive, N.O.S. Isopropanol, Hydroxylaminechloride Solution
UN transport hazard class(es)	3 (8)  
Packing group	III
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

67-63-0	Isopropanol	Listed
5470-11-1	Hydroxylamine Hydrochloride	Listed
3147-14-6	Calmagite	Listed
57-55-6	Propylene Glycol	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
Yes	Yes	Yes	No	No

SARA Section 302 extremely hazardous substances: Not determined.

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SARA Section 313 toxic chemicals:

67-63-0	Isopropanol	Listed
5470-11-1	Hydroxylamine Hydrochloride	Not Listed
3147-14-6	Calmagite	Not Listed
57-55-6	Propylene Glycol	Not Listed

CERCLA: Not determined.

RCRA: Not determined.

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

Massachusetts Right to Know:

67-63-0	Isopropanol	Listed
5470-11-1	Hydroxylamine Hydrochloride	Not Listed
3147-14-6	Calmagite	Not Listed
57-55-6	Propylene Glycol	Not Listed

New Jersey Right to Know:

67-63-0	Isopropanol	Listed
5470-11-1	Hydroxylamine Hydrochloride	Not Listed
3147-14-6	Calmagite	Not Listed
57-55-6	Propylene Glycol	Listed

New York Right to Know:

67-63-0	Isopropanol	Listed
5470-11-1	Hydroxylamine Hydrochloride	Not Listed
3147-14-6	Calmagite	Not Listed
57-55-6	Propylene Glycol	Not Listed

Pennsylvania Right to Know:

67-63-0	Isopropanol	Listed
5470-11-1	Hydroxylamine Hydrochloride	Not Listed
3147-14-6	Calmagite	Not Listed
57-55-6	Propylene Glycol	Listed

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

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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: 2-3-0

HMIS: 2-3-0

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End of Safety Data Sheet