according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

1 Identification Product identifier · Trade name: Isopropanol, 70% v/v · Product code: IP1070SS Recommended use and restriction on use · Recommended use: Laboratory chemicals Restrictions on use: No relevant information available. • Details of the supplier of the Safety Data Sheet · Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: AquaPhoenix Scientific 860 Gitts Run Road, Hanover, PA 17331 (717) 632-1291 · Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International) 2 Hazard(s) identification · Classification of the substance or mixture Flam. Liq. 2 H225 Highly flammable liquid and vapor. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H336 May cause drowsiness or dizziness. [•] Label elements · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms: GHS02 GHS07 · Signal word: Danger · Hazard statements: H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. Precautionary statements: P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233 Keep container tightly closed. (Cont'd. on page 2)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

panol, 70% v/v
(Cont'd. of page 1)
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing mist, vapors, or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: Alcohol resistant foam or water spray.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:

67-63-0 Propan-2-ol

Flam. Liq. 2, H225
 Eye Irrit. 2A, H319; STOT SE 3, H336

7732-18-5 Water

· Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

[•] Description of first aid measures

- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation continues, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

(Cont'd. on page 3)

70%

30%

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

Trade name: Isopropanol, 70% v/v

(Cont'd. of page 2)

Do not induce vomiting; immediately call for medical help. • Most important symptoms and effects, both acute and delayed: Dizziness Coughing Causes eye irritation. Gastric or intestinal disorders when ingested. Acidosis • Danger: May cause drowsiness or dizziness. • Indication of any immediate medical attention and special treatment needed:

If necessary oxygen respiration treatment.

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

5 Fire-fighting measures

• Extinguishing media

Suitable extinguishing agents: Alcohol resistant foam Carbon dioxide Gaseous extinguishing agents Water fog / haze Fire-extinguishing powder
For safety reasons unsuitable extinguishing agents: Water stream.
Special hazards arising from the substance or mixture Highly flammable liquid and vapor. Formation of toxic gases is possible during heating or in case of fire.
Advice for firefighters
Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information:

Eliminate all ignition sources if safe to do so.

Use large quantities of foam as it is partially destroyed by the product.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Isolate area and prevent access.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

Protect from heat.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Methods and material for containment and cleaning up

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders). Send for recovery or disposal in suitable receptacles.

(Cont'd. on page 4)

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

ade name: Isopropanol, 70% v/v	
 Reference to other sections See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information. 	(Cont'd. of pag
7 Handling and storage	
 Handling Precautions for safe handling: Prevent formation of aerosols. Avoid splashes or spray in enclosed areas. Use only in well ventilated areas. Information about protection against explosions and fires: Highly flammable liquid and vapor. Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Flammable gas-air mixtures may be formed in empty containers/receptacles. 	
 Conditions for safe storage, including any incompatibilities Requirements to be met by storerooms and receptacles: Store in a cool location. Avoid storage near extreme heat, ignition sources or open flame. Information about storage in one common storage facility: Store away from foodstuffs. Store away from oxidizing agents. Further information about storage conditions: Keep containers tightly sealed. Store in cool, dry conditions in well sealed receptacles. Specific end use(s) No relevant information available. 	

8 Exposure controls/personal protection

[·] Control parameters

• Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

67-63-0 Propa	n-2-ol
PEL (USA)	Long-term value: 980 mg/m³, 400 ppm
REL (USA)	Short-term value: 1225 mg/m³, 500 ppm Long-term value: 980 mg/m³, 400 ppm
TLV (USA)	Short-term value: 984 mg/m³, 400 ppm Long-term value: 492 mg/m³, 200 ppm BEI
EL (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
EV (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
	(Cont'd. on page 5

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

ade name:	sopropanol, 70% v/v	
		(Cont'd. of page
	ico) Short-term value: 400 ppm Long-term value: 200 ppm	
Ingradiant	A4, IBE	
67-63-0 Pr	with biological limit values:	
BEI (USA)	•	
221 (00,1)	Medium: urine	
	Time: end of shift at end of workweek	
	Parameter: Acetone (background, nonspecific	
· Exposure	controls	
General pr	otective and hygienic measures:	
	recautionary measures for handling chemical	s should be followed.
	rom foodstuffs, beverages and feed.	
	remove all soiled and contaminated clothing s before breaks and at the end of work.	
	g controls: Provide adequate ventilation.	
-	quipment: Suitable respiratory protective de	vice recommended
Protection		
M2 Pr	tective gloves	
	r, NBR loves , BR ber, NR on by the components in the glove materials i e are gloves made of the following materia	
Sa	ety glasses	
 Body prote Limitation 	ant national guidelines concerning the use of ction: Protective work clothing and supervision of exposure into the information available.	
Physical	and chemical properties	
· Information · Appearance	n on basic physical and chemical pro	perties
Form:	a. Liquid	
Color:	Colorless	
· Odor:	Alcohol-like	
· Odor three		

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

de name: Isopropanol, 70% v/v	
	(Cont'd. of page
pH-value:	Not determined.
Melting point/Melting range:	-29 °C (-20.2 °F)
Boiling point/Boiling range:	>78 °C (>172.4 °F)
Flash point:	17-19 °C (62.6-2.2 °F)
Flammability (solid, gaseous):	Not applicable.
Auto-ignition temperature:	>260 °C (>500 °F)
Decomposition temperature:	Not determined.
Danger of explosion:	Product is not explosive. However, formation of explosive a
	vapor mixtures are possible.
Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
Oxidizing properties:	Non-oxidizing.
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	0.85 g/cm³ (7.09 lbs/gal)
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/wa	ter): Not determined.
Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No relevant information available.

10 Stability and reactivity

· Reactivity: No relevant information available.

· Chemical stability: Stable under normal temperatures and pressures.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

Reacts with oxidizing agents.

Used empty containers may contain product gases which form explosive mixtures with air.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized. Highly flammable liquid and vapor.

Toxic fumes may be released if heated above the decomposition point.

Conditions to avoid

Keep ignition sources away - Do not smoke.

Store away from oxidizing agents.

Incompatible materials Oxidizing agents.

(Cont'd. on page 7)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

(Cont'd. of page 6)

3

Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

11 Toxicological information Information on toxicological effects • Acute toxicity: Based on available data, the classification criteria are not met. · LD/LC50 values that are relevant for classification: None.

- · Primary irritant effect:
- · On the skin: Based on available data, the classification criteria are not met.
- · On the eye: Causes eye irritation.
- Sensitization: Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

67-63-0 Propan-2-ol

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eve contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

Causes eye irritation.

Vapors have narcotic effect.

- · Repeated dose toxicity: No relevant information available.
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- · STOT-single exposure: May cause drowsiness or dizziness.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- · Toxicity
- · Aquatic toxicity No relevant information available.
- * Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- · Mobility in soil: No relevant information available.
- [•] Additional ecological information
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Cont'd. on page 8)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

Trade name: Isopropanol, 70% v/v

(Cont'd. of page 7)

· Other adverse effects No relevant information available.

13 Disposal considerations

[·] Waste treatment methods

· Recommendation:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

[·] Uncleaned packagings

• **Recommendation:** Disposal must be made according to official regulations.

• Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number	
DOT, ADR/RID/ADN, IMDG, IATA	UN1219
UN proper shipping name DOT	Isopropanol solution
ADR/RID/ADN, IMDG, IATA	ISOPROPANOL (ISOPROPYL ALCOHOL) SOLUTIO
Transport hazard class(es)	
DOT	
Class	3
Label	3
ADR/RID/ADN	
Class	3 (F1)
Label	3
Class	3
Label	3

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

Trade name: Isopropanol, 70% v/v

		(Cont'd. of page 8)
· DOT, ADR/RID/ADN, IMDG, IATA	II	
· Environmental hazards	Not applicable.	
 Special precautions for user Hazard identification number (Kemler code): EMS Number: 	Warning: Flammable liquids 33 F-E,S-D	
 Transport in bulk according to Annex II o MARPOL73/78 and the IBC Code 	f Not applicable.	

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture · United States (USA) · SARA · Section 302 (extremely hazardous substances): None of the ingredients are listed. · Section 313 (Specific toxic chemical listings): 67-63-0 Propan-2-ol TSCA (Toxic Substances Control Act) 67-63-0 Propan-2-ol 7732-18-5 Water · Proposition 65 (California) · Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. · Chemicals known to cause developmental toxicity: None of the ingredients are listed. · EPA (Environmental Protection Agency): None of the ingredients are listed. · IARC (International Agency for Research on Cancer): 67-63-0 Propan-2-ol 3 Canadian Domestic Substances List (DSL): None of the ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any (Cont'd. on page 10)

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2020

Trade name: Isopropanol, 70% v/v
(Cont'd. of page 9) specific product features and shall not establish a legally valid contractual relationship.
 Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent UD50: Lethal dose, 50 percent OSHA: Occupational Safety & Health Administration Flam. Liq. 2: Flammable liquids – Category 2A STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers
SDS Prepared by: ChemTel 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtel.com