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

Revision: August 22, 2020

1 Identification Product identifier · Trade name: Phenolphthalein Indicator Reagent · Product code: AR-1010-500 EW 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:** Aqua Analytics 39555 Orchard Hill Place Suite 600, Novi, MI 48375 (888) 712-4000 · 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. Lig. 2 H225 Highly flammable liquid and vapor. Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H312 Harmful in contact with skin. Acute Tox. 4 H332 Harmful if inhaled. Eye Irrit. 2A H319 Causes serious eye irritation. Carc. 2 H351 Suspected of causing cancer. Repr. 2 H361 Suspected of damaging fertility or the unborn child. STOT SE 2 H371 May cause damage to the central nervous system and optic nerve. 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:



· Signal word: Danger

(Cont'd. on page 2)

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

Revision: August 22, 2020

Trade name: Phenolphthalein Indicator Reagent (Cont'd. of page 1) · Hazard statements: H225 Highly flammable liquid and vapor. H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H319 Causes serious eye irritation. Suspected of causing cancer. H351 H361 Suspected of damaging fertility or the unborn child. H371 May cause damage to the central nervous system and optic nerve. H336 May cause drowsiness or dizziness. · Precautionary statements: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P210 P233 Keep container tightly closed. Ground/bond container and receiving equipment. P240 P241 Use explosion-proof electrical/ventilating/lighting/equipment. P242 Use only non-sparking tools. Take precautionary measures against static discharge. P243 Do not breathe mist/vapors/spray. P260 Wash thoroughly after handling. P264 Do not eat, drink or smoke when using this product. P270 P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection. P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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+P311 IF exposed or concerned: Call a poison center/doctor. P330 Rinse mouth. P337+P313 If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. P362+P364 P370+P378 In case of fire: Use for extinction: Alcohol resistant foam or water spray. 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 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	25%
Flam. Liq. 2, H225 Eye Irrit. 2A, H319; STOT SE 3, H336	
64-17-5 Ethanol	15.5%
 Flam. Liq. 2, H225 Eye Irrit. 2A, H319 	
67-56-1 Methanol	9.5%
(Cont'd	. on page 3)

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

Revision: August 22, 2020

Trade name: Phenolphthalein Indicator Reagent

ſ		(Cont'o	l. of page 2)
		 Flam. Liq. 2, H225 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 STOT SE 1, H370 	
l		phenolphthalein	0.42%
		🗞 Muta. 2, H341; Carc. 1B, H350; Repr. 2, H361	
	7732-18-5	Water	49.58%
L		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. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Dizziness

Nausea in case of ingestion.

Acidosis

Blindness

Breathing difficulty

Coughing

Causes eye irritation.

Gastric or intestinal disorders when ingested.

Disorientation

Danger:

May be harmful if swallowed, in contact with skin or if inhaled.

Vapors may cause drowsiness and dizziness.

May cause cancer.

May cause neurotoxic effects.

Danger of impaired breathing.

May cause damage to the central nervous system and optic nerve.

Suspected of damaging fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed:

Medical supervision for at least 48 hours.

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

5 Fire-fighting measures

(Cont'd. on page 4)

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

Revision: August 22, 2020

	(Cont'd. of p
· Extinguishing media	
Suitable extinguishing agents:	
Alcohol resistant foam	
Water fog / haze	
Carbon dioxide	
Gaseous extinguishing agents	
Water spray	
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:	
Use large quantities of foam as it is partially destroyed by the product.	
Cool endangered product with water spray.	
Accidental release measures	

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

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.

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.

7 Handling and storage

[.] Handling

• Precautions for safe handling:

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep respiratory protective device available.

(Cont'd. on page 5)

Revision: August 22, 2020

ade name: Pher	olphthalein Indicator Reagent	
Requirements to Store in a well-v Avoid storage ne Information abore Store away from Store away from Further information Keep containers Store in cool, dr	oxidizing agents. ation about storage conditions:	(Cont'd. of page
-		
-	ntrols/personal protection	
Control paran		
=	ith limit values that require monitoring at the workplace:	
67-63-0 Propan		
PEL (USA)	Long-term value: 980 mg/m³, 400 ppm	
REL (USA)	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm	
TLV (USA)	Short-term value: 984 mg/m ³ , 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	
LMPE (Mexico)	Short-term value: 400 ppm Long-term value: 200 ppm A4, IBE	
64-17-5 Ethano		
PEL (USA)	Long-term value: 1900 mg/m³, 1000 ppm	
REL (USA)	Long-term value: 1900 mg/m³, 1000 ppm	
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm	
EL (Canada)	Short-term value: 1000 ppm	
EV (Canada)	Long-term value: 1,900 mg/m³, 1,000 ppm	
LMPE (Mexico)	Long-term value: 1000 ppm A3	
67-56-1 Methan	ol	
PEL (USA)	Long-term value: 260 mg/m³, 200 ppm	
REL (USA)	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin	
TLV (USA)	Short-term value: 328 mg/m ³ , 250 ppm	

Revision: August 22, 2020

	Long-term value: 262 mg/m ³ , 200 ppm	(Cont'd. of page
	Skin; BEI	
EL (Canada	a) Short-term value: 250 ppm Long-term value: 200 ppm Skin	
EV (Canad		
LMPE (Me)	kico) Short-term value: 250 ppm Long-term value: 200 ppm PIEL, IBE	
· Ingredient	s with biological limit values:	
67-63-0 Pr	opan-2-ol	
BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)	
67-56-1 Me	thanol	
BEI (USA)	Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)	
The usual p Keep away Immediatel Wash hanc Do not inha	rotective and hygienic measures: brecautionary measures for handling chemicals should be follow from foodstuffs, beverages and feed. y remove all soiled and contaminated clothing. Is before breaks and at the end of work. ale gases / fumes / aerosols. Ing controls: Provide adequate ventilation. equipment: In case of inadequate ventilation wear respiratory	
đh	otective gloves	
Pro Pro	er, NBR gloves rr, BR	e substance/ the preparation.
The glove r • Material of Nitrile rubbe Neoprene g Butyl rubbe • Eye protect	gloves er, NBR gloves r, BR	e substance/ the preparation.

Revision: August 22, 2020

(Cont'd. of page 6)

Trade name: Phenolphthalein Indicator Reagent

· Limitation and supervision of exposure into the environment No relevant information available.

· Risk management measures No relevant information available.

9 Physical and chemical propert	ies
· Information on basic physical and	d chemical properties
· Appearance:	
Form:	Liquid
Color:	Colorless
· Odor:	Like alcohol
· Odor threshold:	Not determined.
· pH-value:	Not determined.
• Melting point/Melting range:	Not determined.
 Boiling point/Boiling range: 	64.7 °C (148.5 °F)
· Flash point:	13 °C (55.4 °F)
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	425 °C (797 °F)
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/ vapor mixtures are possible.
· Explosion limits	
Lower:	2 Vol %
Upper:	15 Vol %
 Oxidizing properties: 	Not determined.
· Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)
· Density at 20 °C (68 °F):	0.89 g/cm³ (7.43 lbs/gal)
· Relative density:	0.85-0.96
· Vapor density:	Not determined.
• Evaporation rate:	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/water	: Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
[·] Other information	No relevant information available.

10 Stability and reactivity

[·] Reactivity:

(Cont'd. on page 8)

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

Revision: August 22, 2020

Trade name: Phenolphthalein Indicator Reagent (Cont'd. of page 7) Reacts with alkali (lyes). Reacts with certain metals. · 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 violently with oxidizing agents. Reacts with strong acids. Toxic fumes may be released if heated above the decomposition point. · Conditions to avoid Excessive heat. · Incompatible materials Oxidizers · Hazardous decomposition products Under fire conditions only: Carbon monoxide and carbon dioxide 11 Toxicological information Information on toxicological effects · Acute toxicity: Harmful if swallowed, in contact with skin or if inhaled. · 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 eve: Irritating effect. · Sensitization: Based on available data, the classification criteria are not met. · IARC (International Agency for Research on Cancer): 67-63-0 Propan-2-ol 3 64-17-5 Ethanol 1 77-09-8 phenolphthalein 2B · NTP (National Toxicology Program): 77-09-8 phenolphthalein R **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): Toxic if swallowed, in contact with skin or if inhaled. Causes serious eye irritation. · Repeated dose toxicity: Possible risk of irreversible effects. · Germ cell mutagenicity: Suspected of causing genetic defects. · Carcinogenicity: May cause cancer. • Reproductive toxicity: Suspected of damaging fertility or the unborn child. • **STOT-single exposure:** May cause damage to the central nervous system and optic nerve. • **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.

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

Revision: August 22, 2020

Trade name: Phenolphthalein Indicator Reagent

(Cont'd. of page 8)

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 product to reach ground water, water course or sewage system.

· 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.

14 Transport information	
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	UN1987
 UN proper shipping name DOT ADR/RID/ADN, IMDG, IATA 	Alcohols, n.o.s. (ISOPROPANOL, Ethanol, Methanol) ALCOHOLS, N.O.S. (ISOPROPANOL, ETHANOL, METHANOL)
 Transport hazard class(es) 	
DOT	
· Class	3
· Label	3
· ADR/RID/ADN	
· Class	3 (F1)
	(Cont'd. on page 10)

Revision: August 22, 2020

rade name: Phenolphthalein Indicator Reagent	
	(Cont'd. of page S
· Label	3
· IMDG, IATA	
· Class · Label	3 3
[·] Packing group · DOT, ADR/RID/ADN, IMDG, IATA	
 Environmental hazards Marine pollutant: 	No
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler code):	33
· EMS Number:	F-E,S-D
Transport in bulk according to Annex II o	
MARPOL73/78 and the IBC Code	Not applicable.
15 Regulatory information	
	ations/legislation specific for the substance o
 Safety, health and environmental regula mixture United States (USA) 	
 Safety, health and environmental regula mixture United States (USA) SARA 	
 Safety, health and environmental regula mixture United States (USA) SARA Section 302 (extremely hazardous substances) 	s):
 Safety, health and environmental regula mixture United States (USA) SARA Section 302 (extremely hazardous substances None of the ingredients are listed. 	s):
 Safety, health and environmental regula mixture United States (USA) SARA Section 302 (extremely hazardous substances None of the ingredients are listed. Section 313 (Specific toxic chemical listings): 	s):
 Safety, health and environmental regula 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 	s):
 Safety, health and environmental regula 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 67-56-1 Methanol TSCA (Toxic Substances Control Act) 67-63-0 Propan-2-ol 	s):
 Safety, health and environmental regula 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 67-56-1 Methanol TSCA (Toxic Substances Control Act) 	s):
 Safety, health and environmental regula 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 67-56-1 Methanol TSCA (Toxic Substances Control Act) 67-63-0 Propan-2-ol 64-17-5 Ethanol 67-56-1 Methanol 	s):
 Safety, health and environmental regula 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 67-56-1 Methanol TSCA (Toxic Substances Control Act) 67-63-0 Propan-2-ol 64-17-5 Ethanol 67-56-1 Methanol 77-09-8 phenolphthalein 	s):
 Safety, health and environmental regula 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 67-56-1 Methanol TSCA (Toxic Substances Control Act) 67-63-0 Propan-2-ol 64-17-5 Ethanol 67-56-1 Methanol 	s):
 Safety, health and environmental regula 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 64-17-5 Ethanol 77-09-8 phenolphthalein 7732-18-5 Water Proposition 65 (California) Chemicals known to cause cancer: Ethanol - listing refers specifically to alcoholic between the specifical properties and the specifical properties and the specifical properties and the specifical properties and t	s):
 Safety, health and environmental regula 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 67-56-1 Methanol 77-09-8 phenolphthalein 7732-18-5 Water Proposition 65 (California) Chemicals known to cause cancer: Ethanol - listing refers specifically to alcoholic bever 64-17-5 Ethanol 	
 Safety, health and environmental regula 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 67-56-1 Methanol 77-09-8 phenolphthalein 7732-18-5 Water Proposition 65 (California) Chemicals known to cause cancer: Ethanol - listing refers specifically to alcoholic bey 64-17-5 Ethanol 77-09-8 phenolphthalein 77-09-8 phenolphthalein 	s):
 Safety, health and environmental regula 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 67-56-1 Methanol 77-09-8 phenolphthalein 7732-18-5 Water Proposition 65 (California) Chemicals known to cause cancer: Ethanol - listing refers specifically to alcoholic bever 64-17-5 Ethanol 	s):

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

Revision: August 22, 2020

Trade name: Phenolphthalein Indicator Reagent

(Cont'd. of page 10)

3

1

2B

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:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 Ethanol

67-56-1 Methanol

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

67-63-0 Propan-2-ol

64-17-5 Ethanol

77-09-8 phenolphthalein

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 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

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Flam. Liq. 2: Flammable liquids - Category 2

Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Muta. 2: Germ cell mutagenicity - Category 2

Carc. 1B: Carcinogenicity – Category 1B Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity - Category 2

STOT SE 1: Specific target organ toxicity (single exposure) - Category 1

STOT SE 2: Specific target organ toxicity (single exposure) - Category 2

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:

(Cont'd. on page 12)

Revision: August 22, 2020

Trade name: Phenolphthalein Indicator Reagent

(Cont'd. of page 11)

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