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

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1 Identification

· Product identifier

· Trade name: Triethanolamine, 85% v/v

· Product code: TR7285SS

· 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 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com

· 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

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Not regulated.
- · Hazard pictograms: Not regulated.
- · Signal word: Not regulated.
- · Hazard statements: Not regulated.
- · Precautionary statements: Not regulated.
- · Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:		
102-71-6	Triethanolamine	86.4%
7732-18-5	Water	13.6%

4 First-aid measures

- Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

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If skin irritation is experienced, consult a doctor.

· After eye contact:

Remove contact lenses if worn, if possible.

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.

Do not induce vomiting; immediately call for medical help.

 \cdot Most important symptoms and effects, both acute and delayed:

Nausea in case of ingestion.

May cause gastro-intestinal irritation if ingested.

Slight irritant effect on eyes.

Slight irritant effect on skin and mucous membranes.

- · Danger: Danger of disturbed cardiac rhythm.
- · Indication of any immediate medical attention and special treatment needed: Monitor circulation.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray.

- · For safety reasons unsuitable extinguishing agents: None.
- · Special hazards arising from the substance or mixture

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.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Use personal protective equipment as required.

Remove ignition sources.

- · Environmental precautions Avoid release to the environment.
- · Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

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:

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Use only in well ventilated areas.

Avoid contact with the eyes and skin.

Avoid breathing mist, vapors, or spray.

Open and handle receptacle with care.

- · Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed receptacles.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Do not store together with acids.

· 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:

102-71-6 Triethanolamine

TLV (USA)	Long-term value: 5 mg/m ³
EL (Canada)	Long-term value: 5 mg/m³

EV (Canada) Long-term value: 3.1 mg/m³, 0.5 ppm

LMPE (Mexico) Long-term value: 5 mg/m³

- Exposure controls
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Avoid breathing mist, vapors, or spray.

- Engineering controls: No relevant information available.
- · Breathing equipment:

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

· Protection of hands:



Protective gloves

· Eye protection:



Safety glasses

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

Avoid release to the environment.

· Risk management measures No relevant information available.

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9 Physical and chemical properties				
· Information on basic physical a	mation on basic physical and chemical properties			
· Appearance:				
Form:	Liquid			
Color:	Clear to light yellow.			
· Odor:	Slight			
	Ammonia-like			
· Odor threshold:	Not determined.			
· pH-value:	Not determined.			
· Melting point/Melting range:	Not determined.			
 Boiling point/Boiling range: 	Not determined.			
· Flash point:	179 °C (354.2 °F)			
· Flammability (solid, gaseous):	Not applicable.			
· Auto-ignition temperature:	324 °C (615.2 °F)			
· Decomposition temperature:	Not determined.			
· Danger of explosion:	Product does not present an explosion hazard.			
· Explosion limits				
Lower:	Not determined.			
Upper:	Not determined.			
 Oxidizing properties: 	Non-oxidizing.			
· Vapor pressure:	Not determined.			
· Density:	1.0-1.2			
Relative density:	Not determined.			
· Vapor density:	Not determined.			
· Evaporation rate:	Not determined.			
· Solubility in / Miscibility with				
Water:	Soluble.			
· Partition coefficient (n-octanol/wat	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:
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

Reacts with oxidizing agents.

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Reacts with acids.

· Conditions to avoid

Avoid acids.

Excessive heat.

· Incompatible materials

Oxidizers

Strong acids

· Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

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:

Slight irritant effect on skin and mucous membranes.

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

· On the eye:

Slight irritant effect on eyes.

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

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

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· 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.

Eye contact.

Skin contact.

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

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- · 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.
- · Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Smaller quantities can be disposed of with household waste.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

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.

- Uncleaned packagings
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information		
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
 UN proper shipping name DOT, ADR/RID/ADN, IMDG, IATA 	Not regulated.	
· Transport hazard class(es)		
· DOT, ADR/RID/ADN, IMDG, IATA · Class	Not regulated.	
· Packing group · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
· Environmental hazards · Marine pollutant:	No	
· Special precautions for user	Not applicable.	
Transport in bulk according to Annex II MARPOL73/78 and the IBC Code	of Not applicable.	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)

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· SARA

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· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

· 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):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed or exempt.

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

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:

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