according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regu	lations
	Revision: October 30, 2020
1 Identification	
· Product identifier	
 Trade name: <u>Sulfuric Acid, 0.15N</u> Product code: DU409901 	
· Other means of identification: No other identifiers	
 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: Dubois Chemicals Inc. 3630 East Kemper Rd, Cincinnati, OH 45241 (800) 438-2647 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 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. 	
 Label elements GHS label elements The product is classified and labeled according to the Globally Harmonized Syste Hazard pictograms: 	əm (GHS).
GHS07	

· Signal word: Warning · Hazard statements: H315 Causes skin irritation. H319 Causes serious eye irritation. Precautionary statements: P264 Wash thoroughly after handling. P280 Wear protective gloves and eye protection. P302+P352 If on skin: Wash with plenty of water.

(Cont'd. on page 2)

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

Revision: October 30, 2020

Trade name: Sulfuric Acid, 0.15N

(Cont'd. of page 1)

>90%

7-8%

P305+P351+P3	38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.

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

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:

7732-18-5 Water

7664-93-9 Sulfuric acid

Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318

• 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

· After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately rinse with water.

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.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

- Irritant to skin and mucous membranes.
- Causes eye irritation.

Gastric or intestinal disorders when ingested.

Acidosis

Causes skin irritation.

· Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures

Extinguishing media

• Suitable extinguishing agents:

The product is not flammable.

Use fire fighting measures that suit the environment.

(Cont'd. on page 3)

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

Revision: October 30, 2020

Trade name: Sulfuric Acid, 0.15N

(Cont'd. of page 2)

For safety reasons unsuitable extinguishing agents: No relevant information available.
 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.

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

Use limestone to neutralize and/or absorb spill.

Clean the affected area carefully; suitable cleaners are:

Warm water

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:

Avoid splashes or spray in enclosed areas. Use only in well ventilated areas. Avoid contact with the eyes and skin.

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.

Use only receptacles specifically permitted for this substance/product.

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: steel.

Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with alkalis (caustic solutions).

• Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

Specific end use(s) No relevant information available.

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

Revision: October 30, 2020

Trade name: Sulfuric Acid, 0.15N

(Cont'd. of page 3)

8 Exposure co	ntrols/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. 				
7664-93-9 Sulfuric acid				
PEL (USA)	Long-term value: 1 mg/m ³			
REL (USA)	Long-term value: 1 mg/m³			
TLV (USA)	Long-term value: 0.2* mg/m³ *as thoracic fraction			
EL (Canada)	Long-term value: 0.2 mg/m³ ACGIH A2; IARC 1			
EV (Canada)	Long-term value: 0.2 mg/m ³			
LMPE (Mexico)	Long-term value: 0.2* mg/m³ A2;*fracción torácica			
• Breathing equip • Protection of h	ntrols: Provide adequate ventilation. pment: Not required under normal conditions of use. ands: ve gloves			
 Material of gloves Nitrile rubber, NBR Neoprene gloves Butyl rubber, BR Natural rubber, NR Fluorocarbon rubber (Viton) Eye protection: 				
Safety g	glasses			
 Body protection Limitation and No relevant information 	national guidelines concerning the use of protective eyewear. n: Protective work clothing d supervision of exposure into the environment rmation available. ment measures No relevant information available.			

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

Revision: October 30, 2020

Trade name: Sulfuric Acid, 0.15N

(Cont'd. of page 4)

9 Physical and chemical prope	erties			
Information on basic physical and chemical properties				
· Appearance:				
Form:	Liquid			
Color:	Clear to straw color.			
· Odor:	Characteristic			
· Odor threshold:	Not determined.			
· pH-value:	Not determined.			
Melting point/Melting range:	Not determined.			
· Boiling point/Boiling range:	>100 °C (>212 °F)			
· Flash point:	The product is not flammable.			
· Flammability (solid, gaseous):	Not applicable.			
· Auto-ignition temperature:	Not determined.			
· Decomposition temperature:	Not determined.			
· Danger of explosion:	Product does not present an explosion hazard.			
· Explosion limits				
Lower:	Not determined.			
Upper:	Not determined.			
Oxidizing properties:	Not determined.			
· Vapor pressure:	Not determined.			
· Density:				
Relative density:	1.04-1.09			
Vapor density:	Not determined.			
Evaporation rate:	Not determined.			
 Solubility in / Miscibility with 				
Water:	Not miscible or difficult to mix.			
· Partition coefficient (n-octanol/wat	· 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:** 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 alkali (lyes).

Reacts with certain metals.

(Cont'd. on page 6)

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

Revision: October 30, 2020

(Cont'd. of page 5)

Κ

Trade name: Sulfuric Acid, 0.15N

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

· Conditions to avoid Excessive heat.

• Incompatible materials Alkalis Metals. Oxidizers

Hazardous decomposition products Under fire conditions only:

Sulfur oxides (SOx)

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: Irritant to skin and mucous membranes.
- · On the eye: Irritating effect.
- **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):

7664-93-9 Sulfuric acid

· 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 • 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:

(Cont'd. on page 7)

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

Revision: October 30, 2020

Trade name: Sulfuric Acid, 0.15N

(Cont'd. of page 6) Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Other adverse effects No relevant information available.

13 Disposal considerations

[·] Waste treatment methods

· Recommendation:

Dilute concentrate with water and neutralize afterwards with suitable material (lime or chalk). The formed salts are inert and pose little hazard.

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.

4 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 MARPOL73/78 and the IBC Code 	x II of 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):

(Cont'd. on page 8)

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

Revision: October 30, 2020

Trade name: Sulfuric Acid	, 0.15N
---------------------------	---------

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 Met. Corr.1: Corrosive to metals - Category 1 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A · 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: (Cont'd. on page 9)

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

Revision: October 30, 2020

Trade name: Sulfuric Acid, 0.15N

(Cont'd. of page 8)

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