

SECTION 1: Identification**1.1. Identification**

Product form : Mixture
Product name : SCHUTZE REAGENT
Product code : AR611

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Laboratory chemicals

1.3. Supplier

Alpha Resources LLC
3090 Johnson Rd.
Stevensville, Michigan 49127
USA
T (269)465-5559
info@alpharesources.com - www.alpharesources.com

1.4. Emergency telephone number

Emergency number : CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****GHS US classification**

Acute toxicity (inhalation:dust,mist) Category 4	H332	Harmful if inhaled.
Skin corrosion/irritation, Category 1	H314	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Carcinogenicity, Category 1A	H350	May cause cancer.

Full text of H-statements: see section 16

2.2. GHS Label elements, including precautionary statements**GHS US labelling**

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
H350 - May cause cancer.

Precautionary statements (GHS US) :

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
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.

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P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a poison center or doctor.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
SULPHURIC ACID	CAS-No.: 7664-93-9	10	Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Carc. 1A, H350

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

No additional information available

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

No additional information available

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

SULPHURIC ACID (7664-93-9)

USA - ACGIH - Occupational Exposure Limits

Local name	Sulfuric acid
ACGIH OEL TWA	0.2 mg/m ³ (T - Thoracic particulate matter)
Remark (ACGIH)	TLV® Basis: Pulm func. Notations: A2 (Suspected Human Carcinogen. Classification refers to sulfuric acid contained in strong inorganic acid mists)
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	Sulfuric acid
OSHA PEL TWA [1]	1 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

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Colour	: Yellow
Odour	: odourless
Odour threshold	: No data available
pH	: No data available.
Melting point	: No data available.
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available.
Relative density	: No data available.
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

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ATE US (dust,mist)	3.75 mg/l/4h
SULPHURIC ACID (7664-93-9)	
LD50 oral rat	2140 mg/kg bodyweight Animal: rat, 95% CL: 1540 - 2990

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SULPHURIC ACID (7664-93-9)	
LC50 Inhalation - Rat	0.375 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	0.375 mg/l Source: ECHA
ATE US (oral)	2140 mg/kg bodyweight
ATE US (dust,mist)	0.375 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
pH: No data available.

SULPHURIC ACID (7664-93-9)	
pH	0.3 Source: HSDB

Serious eye damage/irritation : Causes serious eye damage.
pH: No data available.

SULPHURIC ACID (7664-93-9)	
pH	0.3 Source: HSDB

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : May cause cancer.

SULPHURIC ACID (7664-93-9)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

SULPHURIC ACID (7664-93-9)	
Viscosity, kinematic	11.413 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

SULPHURIC ACID (7664-93-9)	
LC50 - Fish [1]	16 – 28 mg/l Test organisms (species): <i>Lepomis macrochirus</i>
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
NOEC (chronic)	0.15 mg/l Test organisms (species): other:
NOEC chronic fish	0.31 mg/l Test organisms (species): <i>Salvelinus fontinalis</i> Duration: '213 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

SULPHURIC ACID (7664-93-9)	
Partition coefficient n-octanol/water (Log Pow)	-2.2 Source: HSDB

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

No additional information available

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No	:	UN3085
UN-No. (TDG)	:	UN3085
UN-No. (IMDG)	:	3085
UN-No. (IATA)	:	3085

14.2. UN proper shipping name

Proper Shipping Name (DOT)	:	Oxidizing solid, corrosive, n.o.s.
Proper Shipping Name (TDG)	:	OXIDIZING SOLID, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG)	:	OXIDIZING SOLID, CORROSIVE, N.O.S.
Proper Shipping Name (IATA)	:	Oxidizing solid, corrosive, n.o.s.

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	:	5.1 (8)
Hazard labels (DOT)	:	5.1, 8



TDG

Transport hazard class(es) (TDG)	:	5.1 (8)
Hazard labels (TDG)	:	5.1, 8



IMDG

Transport hazard class(es) (IMDG)	:	5.1 (8)
Danger labels (IMDG)	:	5.1, 8



IATA

Transport hazard class(es) (IATA)	:	5.1 (8)
Danger labels (IATA)	:	5.1, 8

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14.4. Packing group

Packing group (DOT)	: III
Packing group (TDG)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT)	: UN3085
DOT Special Provisions (49 CFR 172.102)	: 62 - Oxygen generators (see §171.8 of this subchapter) are not authorized for transportation under this entry. IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 152
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 100 kg
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 13 - Keep as dry as reasonably practicable,34 - Stow "away from" foodstuffs,56 - Stow "separated from" ammonium compounds,58 - Stow "separated from" cyanides,138 - Stow "Separated from" peroxides.

TDG

UN-No. (TDG) : UN3085

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TDG Special Provisions	: 16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks. 2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act".
Explosive Limit and Limited Quantity Index	: 5 kg
Excepted quantities (TDG)	: E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 25 kg
Emergency Response Guide (ERG) Number	: 140

IMDG

Special provisions (IMDG)	: 223, 274
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: T1
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-Q - SPILLAGE SCHEDULE Quebec - OXIDIZING SUBSTANCES
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: H1
Segregation (IMDG)	: SG38, SG49, SG60
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes. Particular care in handling should be exercised if packages have become wetted.

IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y545
PCA limited quantity max net quantity (IATA)	: 5kg
PCA packing instructions (IATA)	: 559
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 563
CAO max net quantity (IATA)	: 100kg
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 5C

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

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Name	CAS-No.	Listing	Commercial status	Flags
SULPHURIC ACID	7664-93-9	Not present	-	

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Revision date : 9/20/2024

Full text of H-statements	
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H350	May cause cancer.

Safety Data Sheet (SDS)_Alpha, USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.