

Revision Date 03-Aug-2016

WAI1 - AGHS - OSHA

Revision Number 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product Identifier****Product Name** Silica Reagent #1**Product No** 2230RE-1**Pure substance/mixture** Mixture

Contains Sulfuric Acid

Relevant identified uses of the substance or mixture and uses advised against**Recommended Use** Use as laboratory reagent**Uses advised against** No Information available**Manufacturer, Importer, Supplier** Thermo Fisher Scientific©
Water and Lab Products
22 Alpha Road
Chelmsford, MA 01824, USA
1-978-232-6000**E-mail address** info.water@thermo.com**Made in** USA**Emergency Telephone** 24 Hour Emergency Phone Number
CHEMTREC®
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: 1-703-527-3887
(collect calls accepted)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1

Label Elements

Emergency Overview

Danger

Hazard Statements

Harmful if inhaled

Causes severe skin burns and eye damage



Appearance Clear

Physical State Liquid

Odor None

Precautionary Statements

Prevention

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Response

Immediately call a POISON CENTER or doctor/physician

Specific treatment (see supplemental instructions on the administration of antidotes on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell

Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No information available

Other Information

No information available

Unknown Acute Toxicity

25 percent of the mixture consists of ingredient(s) of unknown acute toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Water	7732-18-5	60 - 70%
Sodium Bisulfate Monohydrate	10034-88-5	10 - 20%
Sulfuric Acid	7664-93-9	1 - 10%
Molybdc Acid	7782-91-4	1 - 10%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice

Use first aid treatment according to the nature of the injury. Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse thoroughly with plenty of water, also under the eyelids. Obtain medical attention.

Skin Contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. In case of skin reactions, consult a physician.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately.

Protection of First-aiders

Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects, both acute and delayed

Most important symptoms/effects No information available

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available

Specific Hazards Arising from the Chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment. For further specification, refer to section 8 of the SDS.
Evacuate personnel to safe areas.

Environmental Precautions Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling To avoid risks to human health and the environment, comply with the instructions for use
Wear personal protective equipment
Avoid breathing dust/fume/gas/mist/vapors/spray
Ensure adequate ventilation, especially in confined areas

Conditions for Safe Storage, Including any Incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place
Store at room temperature in the original container
Keep away from direct sunlight

Incompatible Products No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric Acid 7664-93-9	TWA: 0.2 mg/m ³	(Vacated) TWA: 1 mg/m ³ TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³
Molybdic Acid 7782-91-4	TWA: 0.5 mg/m ³	(Vacated) TWA: 5 mg/m ³	IDLH: 1000 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face Protection Wear chemical splash goggles and face shield. If splashes are likely to occur, wear:
Face-shield.

Skin and Body Protection	Wear protective gloves/clothing.
Respiratory Protection	None under normal use conditions. In case of inadequate ventilation wear respiratory protection.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear
Odor	None
Odor Threshold	No information available
PH Range	-0.78 - 0.22

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point/freezing point	No information available	
Boiling Point/Range	100 °C / 212 °F	
Flash Point (High in °C)	N/A	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature		
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content(%)	No information available
Density	No Information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No Information available

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing

Conditions to Avoid

Extremes of temperature and direct sunlight

Incompatible Materials

No information available

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No information available
Eye Contact	No information available
Skin Contact	No information available
Ingestion	No information available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water 7732-18-5	LD50 > 90 mL/kg (Rat)	-	-
Sulfuric Acid 7664-93-9	LD50 = 2140 mg/kg (Rat)	-	LC50 = 510 mg/m ³ (Rat) 2 h

Information on Toxicological Effects

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available

Mutagenic Effects No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA
Sulfuric Acid 7664-93-9	A2	Group 1	Known	X
Molybdic Acid 7782-91-4	A3	-		-

Reproductive Effects No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Aspiration hazard No information available

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 25 percent of the mixture consists of ingredient(s) of unknown acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 16050 mg/kg
ATEmix (inhalation-dust/mist) 1.9 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

25% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Freshwater Algae	Freshwater Fish	Water Flea
Sulfuric Acid 7664-93-9	-	LC50: > 500 mg/L, 96h static (Brachydanio rerio)	EC50: = 29 mg/L, 24h (Daphnia magna)

Persistence and Degradability

No information available

Bioaccumulation/ Accumulation

No information available

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Improper disposal or reuse of this container may be dangerous and illegal.

Component	CAWAST
Sulfuric Acid 7664-93-9	Toxic Corrosive
Molybdic Acid 7782-91-4	Toxic

14. TRANSPORT INFORMATION

DOT

UN-No	UN2796
Proper Shipping Name	Sulfuric acid
Hazard Class	8
Packing Group	II
Special Provisions	A3, A7, B2, B15, IB2, N6, N34, T8, TP2
Shipping Description	UN2796, SULFURIC ACID, 8, II
Emergency Response Guide Number	157

ICAO

UN-No	UN2796
Proper Shipping Name	Sulphuric Acid
Hazard Class	8
Packing Group	II
Description	UN2796, Sulphuric acid, 8, II

IATA

UN-No	UN2796
Proper Shipping Name	SULPHURIC ACID
Hazard Class	8
Packing Group	II
ERG Code	8L

Description UN2796, Sulphuric acid, 8, II

IMDG/IMO

UN-No UN2796
Proper Shipping Name SULPHURIC ACID
Hazard Class 8
Packing Group II
EmS No. F-A, S-B
Description UN2796, Sulphuric acid, 8, II

15. REGULATORY INFORMATION

International Inventories

USINV Does not Comply
CANINV Does not Comply
EINECS/ELINCS Does not Comply
ENCS Does not Comply
IECSC Complies
KECL Does not Comply
PICCS Complies
AICS Complies

USINV/ TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
CANINV/ DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

SARA 311/312 Hazard Categories

Acute Health Hazard No
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric Acid 7664-93-9	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
Sulfuric Acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following proposition 65 chemicals

Component	California Prop. 65
Sulfuric Acid - 7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Component	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Sulfuric Acid 7664-93-9	X	X	X

U.S. EPA Label Information

No information available

16. OTHER INFORMATION

Prepared By Environmental, Health and Safety

Prepared For Thermo Fisher Scientific Inc.©

Issue Date No information available

Revision Date 03-Aug-2016

Reason for revision SDS sections updated.

Disclaimer

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End of Safety Data Sheet