



# SAFETY DATA SHEET

Revision Date 08-Aug-2023

WAI1 - AGHS - OSHA

Revision Number 5

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

**Product Name** Silica Reagent 1  
**Product No** 2030RE-1  
**Kit Reference(s)** 8030cX Silica Analyzer Reagent Kit  
**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**

**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)

**E-mail address** [info.water@thermo.com](mailto:info.water@thermo.com)

**Made in** USA

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

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

Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1

### Label Elements

Contains Sulfuric Acid

### **Emergency Overview**

#### **Danger**

#### **Hazard Statements**

Causes severe skin burns and eye damage



**Appearance** Clear

**Physical State** Liquid

**Odor** None

### Precautionary Statements

#### **Prevention**

Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Do not breathe dust/fume/gas/mist/vapors/spray

#### **Response**

##### **Eyes**

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

##### **Skin**

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

##### **Inhalation**

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

##### **Ingestion**

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Storage**

Store in a closed container

**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

35.8 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	50 - 60%
Sodium Bisulfate Monohydrate	10034-88-5	20 - 30%
Sulfuric Acid	7664-93-9	10 - 20%
Molybdic Acid	7782-91-4	1 - 10%

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

### 4. FIRST AID MEASURES

**Description of first aid measures**

**General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

**Inhalation**

If not breathing, give artificial respiration. Remove from exposure, lie down. 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. Call a physician immediately.

**Ingestion**

Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Self-Protection of the First Aider**

Use personal protective equipment as required. 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 and effects**

Causes burns by all exposure routes

**Indication of any immediate medical attention and special treatment needed**

Notes to Physician Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

### Unsuitable Extinguishing Media

No information available

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

### 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. Thermal decomposition can lead to release of irritating gases and vapors.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

#### Personal Precautions

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

#### Environmental Precautions

Should not be released into the environment. See Section 12 for additional Ecological Information. Vapors may accumulate to form explosive concentrations.

### 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

Wear personal protective equipment/face protection

Do not get in eyes, on skin, or on clothing

Use only under a chemical fume hood

Do not breathe mist/vapors/spray

Do not ingest. If swallowed then seek immediate medical assistance

### Conditions for Safe Storage, Including any Incompatibilities

#### Storage

Corrosives area

Keep containers tightly closed in a dry, cool and well-ventilated place

#### Incompatible Products

No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

### Exposure Guidelines

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

### Legend

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits

NIOSH - National Institute for Occupational Safety and Health IDLH - Immediately Dangerous to Life or Health

### Appropriate engineering controls

**Engineering Measures** Ensure that eyewash stations and safety showers are close to the workstation location

### Individual protection measures, such as personal protective equipment

**Eye/face Protection** Wear chemical splash goggles and face shield. If splashes are likely to occur: Face protection shield.

**Skin and Body Protection** Wear protective gloves/protective 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	-0.28
PH Range	-0.78 - 0.22

Property	Values	Remarks • Method
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**

<b>Softening Point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content(%)</b>	No information available
<b>Density</b>	No Information available
<b>Bulk Density</b>	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**

**Product Information**

<b>Inhalation</b>	No information available
<b>Eye Contact</b>	No information available
<b>Skin Contact</b>	No information available
<b>Ingestion</b>	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 = 0.375 mg/L ( Rat ) 4 h
Molybdic Acid 7782-91-4	-	-	LC50 > 5.05 mg/L ( Rat ) 4 h

**Information on Toxicological Effects**

**Symptoms**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

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

<b>Sensitization</b>	No information available
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**Mutagenic Effects** No information available

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

Component	CAS No	IARC	NTP	ACGIH	OSHA
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed
Sodium Bisulfate Monohydrate	10034-88-5	Not listed	Not listed	Not listed	Not listed
Sulfuric Acid	7664-93-9	Not listed	Not listed	Not listed	Not listed
Molybdcic Acid	7782-91-4	Not listed	Not listed	A3	Not listed

*IARC (International Agency for Research on Cancer)*

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*Group 1 - Carcinogenic to Humans*

*Group 2A - Probably Carcinogenic to Humans*

*Group 2B - Possibly Carcinogenic to Humans*

*NTP: (National Toxicity Program)*

*Known - Known Carcinogen*

*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*

*A1 - Known Human Carcinogen*

*A2 - Suspected Human Carcinogen*

*A3 - Animal Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*NTP: (National Toxicity Program)*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

**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** 35.8 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)** 10253 mg/kg

**ATEmix (inhalation-dust/mist)** 1.8 mg/L

## **12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

35.8% of the mixture consists of components(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)	-

### **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

<b>Waste Disposal Methods</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated Packaging</b>	Dispose of this container to hazardous or special waste collection point.

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
Reportable Quantity (RQ):	(Sulfuric Acid: RQ (kg)= 454.00)
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

United States of America Inventory	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

**Legend:**

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**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

**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 does not contain any Proposition 65 chemicals

**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 Regulatory Affairs

Prepared For Thermo Fisher Scientific Inc.©

**Issue Date** No information available

**Revision Date** 08-Aug-2023

**Reason for revision** SDS sections updated.

**Disclaimer**

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**End of Safety Data Sheet**