

SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: 250 ppb Silica Standard Solution
Product Number: 58 078 020
Volume: 1 Liter

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Silica Calibration Standard

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address:
Mettler-Toledo Thornton, Inc.
900 Middlesex Turnpike, Building 8
Billerica, MA 01821 USA

Telephone Number: +1 781-301-8600 or 1-800-510-7873
Mon. to Fri. 8:00AM to 5:00PM EST

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC 1-800-424-9300 (Account #649654)

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL

Hazard class

This preparation is classified as not hazardous according to OSHA HazCom 2012 Standards.

2.2 LABEL ELEMENTS

Hazard Pictogram: Not applicable.
Signal Word: Not applicable.
Hazard Statement: Not applicable.
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.

2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	CAS No	Wt. %
Water	7732-18-5	>99.9
Sodium Silicate	6834-92-0	< 0.1

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Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

Eye:	In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn. If irritation occurs, get medical advice/attention.
Skin:	In case of contact, immediately flush skin with plenty of water. Call a physician if irritation develops and persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention.
Ingestion:	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call medical doctor or poison control centre immediately.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye:	May cause slight irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Skin:	May cause slight irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Inhalation:	May cause respiratory tract irritation.
Ingestion:	May cause stomach distress, nausea or vomiting.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to Physicians:	Symptoms may not appear immediately.
Specific Treatments:	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

Flammability:	This product is not flammable by OSHA.
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5.2 EXTINGUISHING MEDIA

Suitable Extinguishing Media:	Treat for surrounding material.
Unsuitable Extinguishing Media:	Not applicable.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

Products of Combustion:	Not applicable.
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5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

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6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

- Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Prevent entry into sewers, water courses, basements or confined areas.
- Methods for Cleaning-Up:** Scoop up material and place in a disposal container.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- Handling:** Avoid contact with skin and eyes. Handle in well-ventilated areas. Avoid breathing vapour or mist. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice. (See section 8)
- General Hygiene Advice:** Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Storage:** Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store in a cool, dry place. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Water	Not available.	Not available.
Sodium silicate	Not available.	Not available.

8.2 EXPOSURE CONTROLS

- Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASSURES

Personal Protective Equipment:

Eye/Face Protection: Wear safety glasses or goggles if handling large quantities.

Skin Protection:

Hand Protection: Wear gloves if handling large quantities.

Body Protection: Use personal protective equipment as required.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health AND Safety Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Wash contaminated clothing before reusing.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear.
Color:	Colorless.
Odour:	Odorless.
Odour Threshold:	Not available.
Physical State:	Liquid.
pH:	5 - 7
Melting Point:	~0 °C (42 °F)
Boiling Point:	~100 °C (212 °F)
Flash Point:	Not applicable.
Evaporation Rate:	>1 (Butyl acetate=1)
Flammability:	Not Flammable.
Lower Flammability/Explosive Limit:	Not applicable.
Upper Flammability/Explosive Limit:	Not applicable.
Vapor Pressure:	~17.5 mmHg at 20 °C (68 °F)
Vapor Density:	~0.694
Relative Density/Specific Gravity:	Not available.
Solubility:	Complete.
Partition coefficient: n-octanol/water:	Not applicable.
Auto-ignition Temperature:	Not applicable.
Decomposition Temperature:	Not applicable.
Viscosity:	~1 cP at 20 °C (68 °F)
Explosive Properties:	Not applicable.
Oxidizing Properties:	Not applicable.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

None known.

10.5 INCOMPATIBLE MATERIALS

None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

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Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: May cause slight irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin: May cause slight irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Ingestion: May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

Acute Toxicity:

Ingredient	LC50	LD50
Water	Inhalation 90000 mg/m ³ 4hr, rat	Oral >90000 mg/kg, rat Dermal >90000 mg/kg, rabbit
Sodium silicate	Not available.	Oral 600 mg/kg, rat

Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
> 20mg/L 4 h, rat	>2000 mg/kg, rat	>2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Water	Not listed.
Sodium silicate	Not listed.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation: Based on available data, the classification criteria are not met.

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

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

STOT-Single Exposure: Based on available data, the classification criteria are not met.

Chronic Health Effects: Based on available data, the classification criteria are not met.

Carcinogenicity: This product is not classified as a carcinogen.

Germ Cell Mutagenicity: This product is not classified as a mutagen.

Reproductive Toxicity:

Developmental: This product does not contain known reproductive or developmental toxins.

Fertility: No known significant effects or critical hazards.

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.

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Other Information: Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: Not applicable.

12.2 PERSISTENCE AND DEGRADABILITY

Not applicable.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not applicable.

12.4 MOBILITY IN SOIL

Not applicable.

12.5 OTHER ADVERSE EFFECTS

Not applicable.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

Not regulated.

14.2 UN PROPER SHIPPING NAME

Not applicable.

14.3 TRANSPORT HAZARD CLASS(ES)

Not applicable.

14.4 PACKING GROUP

Not applicable.

14.5 ENVIRONMENTAL HAZARDS

Not applicable.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not applicable.

14.7 SPECIAL PRECAUTIONS FOR USER

Not applicable.

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Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

US: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Water	Not listed.	Not listed.	Not listed.	Not listed.
Sodium silicate	Not listed.	Not listed.	Not listed.	Not listed.

State Regulations

California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories

Ingredient	USA TSCA
Water	Yes.
Sodium silicate	Yes.

NFPA - National Fire Protection Association:

Health:	0
Fire:	0
Reactivity:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 California Proposition 65

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

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Section 16: OTHER INFORMATION

Date of Preparation: June 17, 2013
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Version: B

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End of Safety Data Sheet