



AccuStandard[®], Inc.

125 Market St., New Haven, CT 06513 USA
Tel: 203-786-5290 Fax: 203-786-5287

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: ICP-MS-200.8-CAL1-1

Description: ICP-MS Calibration Standard 1 for Method 200.8

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

1.3 - Supplier Details

Company: AccuStandard, Inc.
125 Market St.
New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

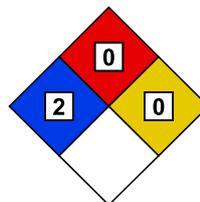
1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc.
1-203-502-7070 (USA)
+001-203-502-7070 (International)

24 hours / 7 days a week

SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements



2	HEALTH
0	FLAMMABILITY
0	PHYSICAL HAZARD

Signal Word: Danger

Hazard Codes:

H290 - May be corrosive to metals.

H302 - Harmful if swallowed. (Acute toxicity, oral, category 4)

H312 - Harmful if absorbed through skin. (Acute toxicity, dermal, category 4)

H314 - Causes severe skin irritation. (Category 1B)

H318 - Causes serious eye damage. (Eye damage/irritation, category 1)

H371 - May cause kidney damage. (Specific target organ toxicity - single exposure) Category 2

Precautionary Codes:

P202 - This product should only be used by persons trained in the safe handling of hazardous chemicals.

P233 - Store in a tightly closed container. (P404)

P262 - Do not get in eyes, on skin or clothing.

SECTION 2 - HAZARDS IDENTIFICATION - continued**2.1 - GHS Label Elements** - continued

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P280 - Protective gloves must be worn to prevent skin contact.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

P331 - Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Give victim a glass of water a little at a time. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, lower head below waist to prevent fluid from entering the lungs.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P340 - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

P352 - Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

2.2 - Other Hazards**2.2.1 - Symptom of Exposure Health/Environment**

Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue.

May be corrosive to metals.

May cause kidney damage. (Specific target organ toxicity - single exposure) Category 2

2.2.2 - Potential Health Effects

Causes serious eye damage. (Eye damage/irritation, category 1)

Causes severe skin irritation. (Category 1B)

Harmful if absorbed through skin. (Acute toxicity, dermal, category 4)

May be harmful if inhaled. (Acute toxicity, inhalation, category 5)

Harmful if swallowed. (Acute toxicity, oral, category 4)

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

Contains one or more components that are classified (ACGIH, IARC, NTP, OSHA) as a cancer hazard in quantities less than 0.1%.

California Proposition 65 Warning: This product contains a component (or components) that may cause cancer and genetic effects in a concentration less than 0.1%.

SECTION 3 - COMPOSITION / ANALYTES DATA

Description: ICP-MS Calibration Standard 1 for Method 200.8

Analyte	CAS #	% Concentration	ACGIH -TLV (mg/m ³)			OSHA -PEL (mg/m ³)		
			TWA	STEL	Skin	TWA	STEL	Skin
Aluminum nitrate nonahydrate	7784-27-2	0.014				2		

SECTION 3 - COMPOSITION / ANALYTES DATA - continued

Analyte	CAS #	% Concentration	ACGIH -TLV (mg/m ³)			OSHA -PEL (mg/m ³)		
			TWA	STEL	Skin	TWA	STEL	Skin
Antimony	7440-36-0	0.001	0.5			0.5		
Arsenic	7440-38-2	0.001	0.01			0.5		
Beryllium acetate, basic	19049-40-2	0.011	0.0005			(C) 0.005		
Cadmium	7440-43-9	0.001	0.01					
Chromium (III) nitrate nonahydrate	7789-02-8	0.008						
Cobalt	7440-48-4	0.001	0.02			0.1		
Copper	7440-50-8	0.001	1			1		
Lead (II) nitrate	10099-74-8	0.002						
Manganese (II) acetate tetrahydrate	6156-78-1	0.004						
Ammonium molybdate tetrahydrate	12054-85-2	0.002						
Nickel	7440-02-0	0.001	1.5			1		
Selenium dioxide	7446-08-4	0.001	0.2 (Se)			0.2 (Se)		
Thallium	7440-28-0	0.001	0.02		X	0.1		X
Thorium nitrate	13823-29-5	0.002						
Uranyl acetate dihydrate	6159-44-0	0.002						
Vanadium (V) oxide	1314-62-1	0.002	0.05			(C)0.5		
Zinc	7440-66-6	0.001						
Nitric acid	7697-37-2	5.000				5		
Water	7732-18-5	94.944						

SECTION 4 - FIRST AID MEASURES**4.1 - First Aid Procedures - General**

Get medical assistance for all cases of overexposure.

4.2 - Eye Contact

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. (P338)

4.3 - Skin Contact

Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists. (P352)

4.4 - Inhalation

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. (P340)

4.5 - Ingestion

Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Give victim a glass of water a little at a time. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, lower head below waist to prevent fluid from entering the lungs. (P331)

SECTION 5 - FIRE FIGHTING MEASURES**5.1 - Flammable Properties**

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

5.2 - Extinguishing Media

Use any extinguishing media suitable for adjacent material.

5.3 - Protection of Firefighters

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

SECTION 6 - ACCIDENTAL RELEASE MEASURES**6.1 - Spill Response**

Wear a self-contained breathing apparatus and appropriate Personal protection. Prevent contact with skin or eyes. Ventilate area. Stop leak if you can do so without risk. Absorb on sand or vermiculite, take up and containerize for proper disposal. Flush spill area with water. Comply with Federal, State, and local regulations.

SECTION 7 - HANDLING AND STORAGE

Store in a tightly closed container. (P404)

Store at controlled room temperature.

Avoid breathing vapors or mists.

Use with adequate ventilation.

Do not get in eyes, on skin or clothing. (P262)

Avoid prolonged or repeated exposure.

This product should only be used by persons trained in the safe handling of hazardous chemicals. (P202)

SECTION 8 - EXPOSURE CONTROLS**8.1 - Engineering Controls/PPE**

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available. (P264)

8.2 - General Hygiene Considerations

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Protective gloves must be worn to prevent skin contact. (P280)

(Chloroprene or equivalent)

Use eye protection tested and approved under the appropriate government standards such as NIOSH (US) or EN 166 (EU).

All recommendations are advisory only and must be evaluated by an industrial hygienist and/or safety officer familiar with the specific situation of anticipated use, such as concentration and amount of the substance in the workplace. Any recommendation should not be construed as offering an approval for any specific use of the product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Odor: N/A
Odor Threshold: N/A
pH: <2.0
Melting Point: N/A
Boiling Point: 83 °C (181 °F)
Flash Point: Noncombustible
Evaporation Rate (Butyl Acetate=1): N/A
Flammability Class: N/A
Lower Flammability Level: N/A
Upper Flammability Level: N/A
Vapor Pressure: 18.51 mmHg
Vapor Density (Air = 1): 0.62 g/L
Specific Gravity: 1.02 g/cm³
Solubility in Water: Soluble
Partition Coefficient: N/A
Autoignition Temperature: N/A
Decomposition Temperature: N/A
Viscosity: N/A
VOC Content: N/A
Percent Volatile: N/A

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable
Materials to Avoid: Oxidizers
Hazardous Decomposition: Nitrogen oxides
Hazardous Polymerization: Will not occur
Condition to Avoid: Extreme heat

SECTION 11 - TOXICOLOGICAL INFORMATION**Human Health Toxicity**

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): Rat - 500 mg/kg

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

Exposure to any chemical should be kept to a minimum. Always follow safe industrial hygiene practices when handling this product.

WARNING: This product contains chemical(s) known to the state of California to cause cancer and to cause birth defects or other reproductive harm.

No other information related to the toxicological properties of this product is available at this time.

SECTION 12 - ECOLOGICAL INFORMATION**Environmental Toxicity**

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

No specific environmental toxicity information is available for this product.

No other information related to the ecological properties of this product is available at this time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

SECTION 14 - TRANSPORT INFORMATIONTransportation Information (DOT/IATA)

UN Number: UN3264

Class: 8

Packing Group: III

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)

Poison by Inhalation: No

Marine Pollutant: No

SECTION 15 - REGULATORY INFORMATION

WARNING: This product contains chemical(s) known to the state of California to cause cancer and to cause birth defects or other reproductive harm.

Not all components are listed on the TSCA Inventory.

This product contains a compound or compounds subject to EU Regulation (EC) No 1907/2006 (REACH) on Annex XIV, Annex XVII, and/or Article 59. Refer to the below table for details.

For laboratory, research and development use only. Not for manufacturing or commercial purposes.

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

Analyte	CAS #	% Concentration	REACH (1907/2006)		
			Annex XIV	Annex XVII	Article 59
Arsenic	7440-38-2	0.001		X	
Beryllium acetate, basic	19049-40-2	0.011		X	
Cadmium	7440-43-9	0.001		X	X
Cobalt	7440-48-4	0.001		X	
Lead (II) nitrate	10099-74-8	0.002		X	X
Nickel	7440-02-0	0.001		X	

SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations. Chemicals are classified using the Globally Harmonized System for Classification and Labeling of Chemicals and CLP Regulation (EC) No. 1272/2008.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend : N/A = Not Available ND = Not Determined NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

HMIS/NFPA HAZARD INDEX

- 0 - Minimal
- 1 - Slight
- 2 - Moderate
- 3 - Serious
- 4 - Severe

* - Additional Hazard

GHS HAZARD INDEX

- Category 1 - Most Severe
- Category 5 - Least Severe

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