

Revision Date: 2012-05-31
Reason for Revision: Section 14 Updated

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 96713B Cal Check® Standard Cuvette B

Application: Validation and Calibration of Hanna 96-series Colorimeters

Company Information (USA):

Hanna Instruments, Inc.
 584 Park East Dr, Woonsocket, Rhode Island, USA 02895

Technical Service Contact Information:

1-800-426-6287 (8:30AM - 5:00PM ET)
 +1-401-766-4260 (8:30AM - 5:00PM ET)

USA Emergency Contact Information:

1-800-424-9300 (Chemtrec 24Hr. Emergency)

International Emergency Contact Information:

+1-703-527-3887 (Chemtrec 24Hr. Emergency)

E-mail Address:

tech@hannainst.com

SECTION 2: HAZARD IDENTIFICATION

Causes severe skin burns and eye damage.

According to Regulation (EC) No. 1272/2008:

Classification: Skin Corrosion (Category 1B)

Signal Word: **Danger**

Pictograms:



Hazard Statements: H314: Causes severe skin burns and eye damage.

Precaution Statements: P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P361: Remove/Take off immediately all contaminated clothing.

According to Directives 67/548/EEC and 1999/45/EC:

Symbol: C: Corrosive

R-phrases: 34: Causes burns

S-phrases: 26-27-45: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component:	EC No:	CAS No:	Hazard Class:	Phrases:	Concentration:
Chromium(III) nitrate nonahydrate	236-921-1	7789-02-8	Ox. Solid 3 Skin Irrit. 2 Eye Irrit. 2 O, Xi	H272, H315, H319 R: 8-36/38	< 1%
Nitric acid	231-714-2	7697-37-2	Ox. Liq. 3 Skin Corr. 1A O, C	H272, H314 R: 8-35	> 5% - < 20%

Safety Data SheetAccording to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66**SECTION 4: FIRST AID MEASURES**

- After Inhalation:** Remove to fresh air. Call a physician if breathing becomes difficult.
- After Skin Contact:** Wash affected area with plenty of water. Immediately remove contaminated clothing.
- After Eye Contact:** Rinse out with plenty of water for at least 15 minutes. If pain persists, summon medical advice.
- After Swallowing:** Do NOT induce vomiting. Risk of perforation! Drink plenty of water. Seek medical advice immediately.
- General Information:** Not available

SECTION 5: FIRE-FIGHTING MEASURES

- Suitable Extinguishing Media:**
Water spray, Carbon Dioxide, Dry Chemical Powder, Appropriate Foam.
- Special Risks:**
Non-combustible. Development of hazardous combustion gases or vapors possible in the event of fire. The following may develop in event of fire:
Nitrogen oxides.
- Special Protective Equipment:**
Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
- Additional Information:**
Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:**
Do not inhale vapors/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.
- Environmental Precautions:**
Do not allow to enter the sewerage system.
- Additional Notes:**
Take up with liquid-absorbent material. Clean up affected area and dispose according to local regulation.

SECTION 7: HANDLING AND STORAGE

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|---|---|
| Handling:
Avoid generation of vapors/aerosols. Do not inhale substance. | Storage:
Tightly closed. In a well-ventilated place at +15 to +25 °C. |
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SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Chromium(III) Nitrate Nonahydrate					
TWA (8hr)	0.5 mg (Cr)/m ³	Canada (Ontario)	Ceiling	0.05 mg (Cr)/m ³	Hungary
TWA (8hr)	0.5 mg (Cr)/m ³	Poland	TWA (8hr)	0.5 mg (Cr)/m ³	Romania
TWA (8hr)	0.5 mg (Cr)/m ³	USA (ACGIH)	TWA (8hr)	0.5 mg (Cr)/m ³	USA (OSHA)
Nitric Acid					
TWA (15min)	2.6 mg/m ³	Belgium	TWA (8hr)	5 mg/m ³	Canada (Ontario)
TWA (8hr)	2 ppm	Canada (Quebec)	TWA (15min)	2.6 mg/m ³	France
TWA (8hr)	2.6 mg/m ³	Germany	TWA (8hr)	5 mg/m ³	Greece
TWA (8hr)	5 mg/m ³	Hungary	TWA (15min)	2.6 mg/m ³	Italy
TWA (8hr)	1.3 mg/m ³	Netherlands	TWA (8hr)	5 mg/m ³	Poland
TWA (8hr)	2 ppm	Portugal	TWA (15min)	2.6 mg/m ³	Romania
Ceiling	2.6 mg/m ³	Spain	TWA (8hr)	5.2 mg/m ³	UK
TWA (8hr)	2 ppm	USA (ACGIH)	TWA (8hr)	2 ppm	USA (OSHA)

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

Wear protective gloves/clothing in case of accidental leakage.

Respiratory Protection:

Required when vapors/aerosols are generated. Work under hood.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Change contaminated clothing immediately. Wash hands after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Blue-black liquid	Odor:	Odorless	Density at 20°C:	1.06 g/cm ³
Melting Point:	NA	Boiling Point:	ND	Solubility:	Soluble
pH at 20°C:	< 0.5	Explosion Limit:	NA	Flash Point:	NA
Thermal Decomp.:	NA				

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Not available

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Reducing agents, organic compounds, metals.

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

Quantitative data on the toxicity of this product is not available.

Potential Health Effects:

- Inhalation:** Respiratory tract irritation, pulmonary function changes, chemical pneumonitis, pulmonary edema, and dyspnea may occur.
- Skin Contact:** Severe burns, ulceration, scarring, dermatitis.
- Eye Contact:** Conjunctivitis, corneal ulcers and necrosis, corneal opacity.
- Ingestion:** Gastritis, hemorrhagic gastritis, esophageal and gastric burns can occur.

Component Toxicity

Acute Toxicity:

Chronic Toxicity:

Not Available

Chromium(III) Nitrate Nonahydrate
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LD50: Oral - Rat - 3250 mg/kg

Nitric Acid

LC50: Inhalation - Rat - 334 ppm

Additional Data:

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Chromium (III) nitrate nonahydrate – as the pure substance:

Other notes:

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

In contrast to chromium(VI) compounds, chromium(III) compounds are not carcinogenic in animal experiments. Only slight absorption (< 1%) via gastrointestinal tract in comparison with hexavalent chromium. The greater, nonabsorbed part of chromium(III) is eliminated with the faeces.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Nitric Acid – as the pure substance:

Nitric acid can be corrosive to the skin, eyes, nose, mucous membranes, respiratory and gastrointestinal tracts, or any tissue with which it comes in contact. Severe burns can occur with necrosis and scarring. Milder exposures can cause irritation of the eyes, skin, mucous membranes and respiratory and digestive tracts.

SECTION 12: ECOLOGICAL INFORMATION

Quantitative data on the ecotoxicity of this product is not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Chromium (III) nitrate nonahydrate – as the pure substance:

Ecotoxic effects:

The following applies to nitrates in general: may contribute to the eutrophication of water supplies.

The following applies to chromium ions in general:

Fish: LC50: 29 mg/L

Algae: Toxic from 5 mg/L up

Daphnia: Toxic from 0.32 mg/L up, calculated as sodium chromate.

Further Data: Do not allow to enter waters, waste waters, or soil!

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: TRANSPORTATION INFORMATION

	<i>Land (ADR/RID):</i>	<i>Sea (IMDG):</i>	<i>Air (ICAO/IATA):</i>
UN No.:	2031	2031	2031
Proper Shipping Name:	Nitric acid solution	Nitric acid solution	Nitric acid solution
Class (Sub Risk):	8	8	8
Packing Group:	II	II	II

SECTION 15: REGULATORY INFORMATION

Complies with European Regulations (EC) No. 1907/2006 and No. 1272/2008.
 Complies with European Council Directives 67/548/EEC and 1999/45/EC.
 Complies with OSHA Regulation 29 CFR 1910.1200.
 Complies with Canadian Regulation SOR/88-66

SECTION 16: OTHER INFORMATION

Text of phrases under Section 3

R8: Contact with combustible material may cause fire.
 R35: Causes severe burns.
 R36/38: Irritating to eyes and skin.
 H272: May intensify fire; oxidiser.
 H314: Causes severe skin burns and eye damage.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.

Revision Information

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Legend
 NA: Not Applicable
 ND: Not Determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.