**HI 758-11 B**
***Marine Calcium Certified Standard Cuvette - B***

# Safety Data Sheet

According to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66

***Revision Date:*** 2012-05-23
***Reason for Revision:*** (1st edition)

## SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

***Product Name:*** HI 758-11 Marine Calcium Certified Standard Cuvette - B

***Additional Product Codes:*** HI 758-11

***Application:*** Certified Standard for Validation of HI 758 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<br>Skin Irrit. 2<br>Eye Irrit. 2<br>O, Xi | H272, H315, H319<br>R: 8-36/38 | < 1% |
| Nitric acid | 231-714-2 | 7697-37-2 | Ox. Liq. 3<br>Skin Corr. 1A<br>O, C | H272, H314<br>R: 8-35 | > 5% - < 20% |

## *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*

***Handling:***

Avoid generation of vapors/aerosols. Do not inhale substance.

***Storage:***

Tightly closed. In a well-ventilated place at +15 to +25 °C.

## *SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION*

| *Type* | *Value* | *Source* | *Type* | *Value* | *Source* |
|---|---|---|---|---|---|
| **Chromium(III) Nitrate Nonahydrate** | | | | | |
| TWA (8hr) | 0.5 mg (Cr)/m³ | Canada (Ontario) | Ceiling | 0.05 mg (Cr)/m³ | Hungary |
| TWA (8hr) | 0.5 mg (Cr)/m³ | Poland | TWA (8hr) | 0.5 mg (Cr)/m³ | Romania |
| TWA (8hr) | 0.5 mg (Cr)/m³ | USA (ACGIH) | TWA (8hr) | 0.5 mg (Cr)/m³ | USA (OSHA) |
| **Nitric Acid** | | | | | |
| TWA (15min) | 2.6 mg/m³ | Belgium | TWA (8hr) | 5 mg/m³ | Canada (Ontario) |
| TWA (8hr) | 2 ppm | Canada (Quebec) | TWA (15min) | 2.6 mg/m³ | France |
| TWA (8hr) | 2.6 mg/m³ | Germany | TWA (8hr) | 5 mg/m³ | Greece |
| TWA (8hr) | 5 mg/m³ | Hungary | TWA (15min) | 2.6 mg/m³ | Italy |
| TWA (8hr) | 1.3 mg/m³ | Netherlands | TWA (8hr) | 5 mg/m³ | Poland |
| TWA (8hr) | 2 ppm | Portugal | TWA (15min) | 2.6 mg/m³ | Romania |
| Ceiling | 2.6 mg/m³ | Spain | TWA (8hr) | 5.2 mg/m³ | 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/cm³ |
| ***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:***

**Chromium(III) Nitrate Nonahydrate**

***LD50:*** Oral - Rat - 3250 mg/kg

**Nitric Acid**

***LC50:*** Inhalation - Rat - 334 ppm

***Chronic Toxicity:***

Not Available

***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***

| | ***Land (ADR/RID):*** | ***Sea (IMDG):*** | ***Air (ICAO/IATA):*** |
|---|---|---|---|
| **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***

| | |
|---|---|
| **Revision Date:** | 2012-05-23 |
| **Supersedes edition of:** | (1st edition) |
| **Reason for revision:** | (1st edition) |
| ***Legend*** | NA: Not Applicable<br>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.**