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**HI 70464**  
**1N HCl Titration Solution**  
**Safety Data Sheet**

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

**Revision Date:** 2009-06-10  
**Reason for Revision:** 29 CFR 1910.1200 and SOR/88-66 Compliance

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY**

**Product Name:** HI 70464 1N HCl Titration Solution

**Application:** Titration Reagent

**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**

Non-hazardous product as specified in Directives 67/548/EEC and 1999/45/EC.  
Non-hazardous product as specified in OSHA Regulation 29 CFR 1910.1200.  
Non-hazardous product as specified in Canadian Regulation SOR/88-66.

**SECTION 3: COMPOSITION AND COMPONENT INFORMATION**

**Component:** Hydrochloric Acid

**EC-No.:** 231-595-7

**CAS-No.:** 7647-01-0

**Hazard:** C

**Phrases:** R: 34-37

**Content:** > 1% - < 10%

**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 water and soap.

**After Eye Contact:** Rinse out with plenty of water for at least 15 minutes. If pain persists, summon medical advice.

**After Swallowing:** Immediately make victim drink plenty of water. Summon doctor if pain persists.

**General Information:** Not available

**SECTION 5: FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:**

Water Spray, Foam, Dry Powder, Carbon Dioxide

**Special Risks:**

Non-combustible. Development of hazardous combustion gases or vapors possible in the event of fire. The following may develop in the event of fire: Hydrochloric Acid

**Special Protective Equipment:**

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

**Additional Information:**

Contain escaping vapors with water.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:**

Do not inhale vapors/aerosols.

**Environmental Precautions:**

NA

**Additional Notes:**

Take up with liquid-absorbent material. Forward for disposal. Clean up affected area. Render harmless: neutralize with diluted sodium hydroxide solution or by throwing on lime, lime sand, or sodium carbonate.

**SECTION 7: HANDLING AND STORAGE**

**Handling:**

Cannot be stored indefinitely.

**Storage:**

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

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

Type	Value	Source	Type	Value	Source
<b>Hydrochloric Acid</b>					
TWA (8hr)	8 mg/m <sup>3</sup>	Belgium	Ceiling	2 ppm	Canada (Ontario)
Ceiling	5 ppm	Canada (Quebec)	TWA (15min)	7.6 mg/m <sup>3</sup>	France
TWA (8hr)	3 mg/m <sup>3</sup>	Germany	TWA (8hr)	7 mg/m <sup>3</sup>	Greece
TWA (8hr)	8 mg/m <sup>3</sup>	Hungary	TWA (8hr)	8 mg/m <sup>3</sup>	Italy
TWA (8hr)	8 mg/m <sup>3</sup>	Netherlands	TWA (8hr)	5 mg/m <sup>3</sup>	Poland
Ceiling	2 ppm	Portugal	TWA (8hr)	8 mg/m <sup>3</sup>	Romania
TWA (8hr)	7.6 mg/m <sup>3</sup>	Spain	TWA (8hr)	2 mg/m <sup>3</sup>	UK
Ceiling	2 ppm	USA (ACGIH)	Ceiling	5 ppm	USA (OSHA)

**Engineering:**

Maintain general industrial hygiene practice.

**Personal Protective Equipment:**

As appropriate to quantity handled.

**Respiratory Protection:**

Required when vapors/aerosols are generated.

**Protective Gloves:**

Rubber or plastic

**Eye Protection:**

Goggles or face mask

**Industrial Hygiene:**

Change contaminated clothing. Wash hands after working with substance.

**SECTION 9: PHYSICAL/CHEMICAL PROPERTIES**

<b>Appearance:</b>	Colorless liquid	<b>Odor:</b>	Odorless	<b>Density at 20° C:</b>	0.99 g/cm <sup>3</sup>
<b>Melting Point:</b>	NA	<b>Boiling Point:</b>	> 100 °C	<b>Solubility:</b>	Soluble
<b>pH at 20° C:</b>	< 2	<b>Explosion Limit:</b>	NA	<b>Flash Point:</b>	NA
<b>Thermal Decomp.:</b>	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:**

Metals

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Product Toxicity**

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

**Potential Health Effects:**

**Skin Contact:** Slight irritations.

**Eye Contact:** Slight irritations.

**Further Data:** The product should be handled with the usual care when dealing with chemicals.

**Component Toxicity**

**Acute Toxicity:**

**Chronic Toxicity:**

Not Available

**Hydrochloric Acid**

**LC50:** Inhalation - Rat - 1562 ppm

**LD50:** Oral - Rabbit - 900 mg/kg

**Additional Data:**

Not Available

**SECTION 12: ECOLOGICAL INFORMATION**

Quantitative data on the ecological effect of this product is not available.

**APPLICABLE TO PARTIAL COMPONENT:**

The following applies to HCl in general: Harmful effect on aquatic organisms. Harmful effect due to pH shift. Biological effects: hydrochloric acid (including such due to reaction): lethal for fish as from 25 mg/L; *Leuciscus idus* LC50: 862 mg/L (1N-solution). Harmful effects begin at: plants 6 mg/L. Does not cause biological oxygen deficit.

**Further Data:** No ecological problems are to be expected when the product is handled and used with due care and attention.

**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:**

Not subject to transport regulations.

**Sea:**

Not subject to transport regulations.

**Air:**

Not subject to transport regulations.

**SECTION 15: REGULATORY INFORMATION****Labeling according to EC Directives:**

Non-hazardous according to Directives 67/548/EEC and 1999/45/EC.

**SECTION 16: OTHER INFORMATION****Text of R-phrases under Section 3**34: Causes burns  
37: Irritating to respiratory system**Revision Information****Revision Date:** 2009-06-10  
**Supersedes edition of:** 2008-12-01  
**Reason for revision:** 29 CFR 1910.1200 and SOR/88-66  
Compliance**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.**