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HI 4005-00
ISA for Carbon Dioxide

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

Revision Date: 2008-12-01
Reason for Revision: REACH Compliance and General Update

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 4005-00 ISA for Carbon Dioxide

Additional Product Codes:

Application: Carbon Dioxide ISA Buffer Solution

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.

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 effected 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:

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

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

Ingredients:

EC
Name: Hydrogen chloride
Value: 5 mL/m³, 8 mg/m³

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

Appearance:	Colorless liquid	***Odor:***	Odorless	***Density at 20° C:***	1.15 g/cm³
Melting Point:	NA	***Boiling Point:***	> 100 °C	***Solubility:***	Soluble
pH at 20° C:	~ 4.5	***Explosion Limit:***	NA	***Flash Point:***	NA
Thermal Decomp.:	NA				

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Decomposition Products:

In the event of fire: See section 5.

Hazardous Polymerization:

Will not occur.

Substances to be Avoided:

Metals

Further Information:

Not available

SECTION 11: TOXICOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT:
The following applies to Hydrochloric acid, as the pure substance
Acute toxicity
LC50 (inhalation, rat): 3124 ppm(V) /1 h (calculated on the pure substance).
Subacute to chronic toxicity
Applicable to the toxicologically determinant component:
An embryotoxic effect need not be feared when the threshold limit value is observed.
Further toxicological information
Property that must be anticipated on the basis from the components of the preparation:
After skin contact: Slight irritations.
After eye contact: Slight irritations.

In Case of Inhalation:

In Case of Skin Contact:

In Case of Eye Contact:

In Case of Ingestion:

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

SECTION 12: ECOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT:
The following applies to Hydrochloric acid – as the pure substance
Ecotoxic effects:
Quantitative data on the ecological effect of this product are not available.
Further ecologic data:
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.
No ecological problems are to be expected when the product is handled and used with due care and attention.

Further Data:

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:	***Sea:***	***Air:***
Not subject to transport regulations	Not subject to transport regulations	Not subject to transport regulations

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

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

R-phrases:

S-phrases:

Contains:

SECTION 16: OTHER INFORMATION

Text of R-phrases under Section 3

34: Causes burns
37: Irritating to respiratory system

Revision Information

Revision Date:	2008-12-01
Supersedes edition of:	2008-01-18
Reason for revision:	REACH Compliance and General Update

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.