

Health & Safety data sheet
According to EC Directive 91/155/EC and following amendments

Date of issue: 30 June 2004.

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Product name:

- HI 3895-pH pH Reagent.

Application:

- Determination of pH in soil (extract) samples.

Manufacturer identification:

Hanna Instruments Italia s.r.l.
 Viale delle Industrie, 12/A
 35010 Villafranca Padovana, Italy
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+39-02-66101029
 CENTRO ANTIVELENI
 OSPEDALE NIGUARDA (MI) - ITALY

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients:

NAME (EC directives)	EC-Index-No.	CAS No.	LABELLING (EC directives)	CONTENT
Calcium chloride dihydrate	017-013-00-2	10043-52-4	Xi, R36	≥ 1% - < 10%

(full text of R-phrases in section 16)

SECTION 3 - HAZARD IDENTIFICATION

The concentration of the hazardous ingredient is below the limits of classification: a classification according to categories of danger as specified in directive 67/548/EC is not required.

Risk cannot be excluded if the product is handled improperly.

SECTION 4 - FIRST AID MEASURES

Remove contaminated, soaked clothing immediately and dispose of safely.

- **After inhalation** : fresh air. Call in physician.
- **After skin contact** : wash off with plenty of water. Immediately remove contaminated clothing.
- **After eye contact** : rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophthalmologist.
- **After swallowing** : make victim drink plenty of water (if necessary several liters. Immediately call in physician.

SECTION 5 – FIRE-FIGHTING MEASURES

- **Suitable extinguishing media**
 - Foam, dry powder or carbon dioxide.
- **Special risks:**
 - Non combustible.
 - Development of hazardous combustion gases possible in the event of fire.
 - The following may develop in event of fire: hydrochloric acid.
- **Special protective equipment for fire fighting:**
 - Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- **Personal precautions:**
 - Avoid substance contact. Do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

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- **Environmental precautions:**
 - Do not discharge into the drains/surface waters/groundwater.
- **Additional notes:**
 - Take up dry. Forward for disposal.

SECTION 7 - HANDLING AND STORAGE

- **Handling:**
 - Work under hood. Do not inhale substance.
 - Avoid generation of dusts.
- **Storage:**
 - Tightly closed. In a well ventilated place.
 - Store at room temperature (+15 to +25 °C recommended).

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

- **Personal protective equipment:**
 - Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.
- **Respiratory protection:**
 - Required when dusts are generated.
 - Work under hood.
- **Protective gloves:**
 - Rubber or plastic
- **Eye protection:**
 - Goggles or face mask
- **Industrial hygiene:**
 - Change contaminated clothing. Apply skin- protective barrier cream.
 - Wash hands after working with substance.

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

- | | | | |
|------------------------------|----------------|-------------------------------|----------------|
| • Appearance | : white powder | • pH value at 20°C | : 8.12 @10 g/L |
| • Odor | : odorless | • Density at 20°C | : NA |
| • Solubility in water | : soluble | • Ignition temperature | : NA |
| • Melting point | : ND | • Flash point | : NA |
| • Boiling point | : ND | | |

SECTION 10 - STABILITY AND REACTIVITY

- **Conditions to be avoided:**
 - Heating and moisture.
- **Substances to be avoided:**
 - No information available.
- **Hazardous decomposition products:**
 - No information available.
- **Hazardous polymerization:**
 - Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Calcium chloride dihydrate – as the pure substance

Acute toxicity

LD₅₀ (dermal, rat): 2630 mg/kg (anhydrous substance).

LD₅₀ (oral, rat): 1000 mg/kg (anhydrous substance).

Specific symptoms in animal studies:

Eye irritation test (rabbit): Irritations (OECD 405).

Skin irritation test (rabbit): No irritation (OECD 404).

Subacute to chronic toxicity

Bacterial mutagenicity: Ames test: negative. (anhydrous substance)

Property of this product must be anticipated on the basis from the components of the preparation:

- **In case of inhalation** : irritations symptoms in the respiratory tract.
- **In case of skin contact** : no irritations.
- **In case of eye contact** : irritations.
- **In case of ingestion of large amounts** : gastrointestinal complaints.

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- **Further data** : the product should be handled with the care usual when dealing with chemicals.

SECTION 12 - ECOLOGICAL INFORMATION

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Calcium chloride dihydrate – as the pure substance

Methods for the determination of biodegradability are not applicable to inorganic substances.

Ecotoxic effects:

Biological effects:

Increases the hardness of water. A harmful effect of aquatic organisms is only to be expected at high concentrations.

Fish toxicity: *L.macrochirus* LC₅₀: 10650 mg/l /96 h (anhydrous substance).

Daphnia toxicity: *Daphnia magna* EC₅₀: 144 mg/l /48 h (anhydrous substance).

Algal toxicity: algae IC₅₀: 3130 mg/l /120 h (anhydrous substance).

Bacterial toxicity: bacteria EC₅₀: >100 mg/l (anhydrous substance).

Further ecologic 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 - TRANSPORT INFORMATION

Not subject to transport regulations.

SECTION 15 - REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: -

R-phrases: -

S-phrases: 22-24/25

Do not breathe dust. Avoid contact with skin and eyes.

Contains: -

SECTION 16 - OTHER INFORMATION

- **Text of any R phrases referred to under section 2:**

36 : Irritating to eyes.

- **Supersedes edition of** : June 2002

- **Reason for revision** : change in labeling after reevaluation.

- **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.