

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

Date of issue: 20 January 2008.

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Product name:
 • Chloride Indicator

Application:
 Determination of chloride in water samples.

Manufacturer identification: Hanna Instruments Italia s.r.l.
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Emergency Telephone n. °: +39-02-66101029
 CENTRO ANTIVELENI
 OSPEDALE NIGUARDA (MI) - ITALY

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

The percent content of the chromium compound refers to the amount of the pure metallic element therein.

Hazardous Ingredients:

NAME (EC directives)	EC-Index-No.	CAS No.	LABELLING (EC directives)	CONTENT
Potassium chromate	024-006-00-8	7789-00-6	T, N R 49-46-36/37/38-43-50/53	≥ 0.5 - < 10%

(Full text of R-Phrases in heading 16).

SECTION 3 - HAZARD IDENTIFICATION

May cause cancer by inhalation. May cause heritable genetic damage. May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Restricted to professional users. Attention –

Avoid exposure – obtain special instructions before use.

SECTION 4 - FIRST AID MEASURES

Remove contaminated, soaked clothing immediately and dispose of safely.

- **After inhalation** : fresh air. Summon doctor.
- **After skin contact** : wash off with plenty of water. Immediately remove contaminated clothing.
- **After eye contact** : rinse out immediately with plenty of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers and seek medical advice.
- **After swallowing** : wash out mouth with water, provided person is conscious. Call a physician.

SECTION 5 – FIRE-FIGHTING MEASURES

- **Suitable extinguishing media**
 - Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.
- **Special risks:**
 - Development of hazardous combustion gases or vapors possible in the event of fire.
- **Special protective equipment for fire fighting:**
 - Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
- **Additional information:**
 - Product itself is non-combustible. Cool container with spray water from a safe distance. Contain escaping vapors with water.
 - Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

- **Personal precautions:**
 - Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.
- **Environmental precautions:**
 - Do not discharge into the drains/surface waters/groundwaters.
- **Additional notes:**
 - Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7 - HANDLING AND STORAGE

- **Handling:**
 - Avoid generation of vapors/aerosols.
 - Work under hood.
 - Do not inhale substance.
- **Storage:**
 - Tightly closed. In a well-ventilated place at +15 to +25 °C. Protect from light.
 - Accessible only for authorized persons.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

- **Engineering controls**
 - Safety shower and eye bath.
- **General hygiene measures**
 - Wash thoroughly after handling. Remove and wash contaminated clothing promptly.
 - Discard contaminated shoes.
- **Personal protective equipment:**
 - As appropriate to quantity handled.
- **Protective gloves:**
 - Rubber or plastic
- **Respiratory protection:**
 - Required when vapors/aerosols are generated.
 - Work under hood.
- **Eye protection:**
 - Goggles or face mask

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

- **Appearance and odor** : yellow color; odorless
- **Solubility in water** : soluble
- **Melting point** : NA
- **Boiling point** : ND
- **pH value at 20°C** : 8.75
- **density at 20°C** : ~ 1.04 g/cm³
- **Thermal decomposition** : NA

SECTION 10 - STABILITY AND REACTIVITY

- **Conditions to be avoided:**
 - Strong heating.
 - Stable in the recommended storage conditions.
- **Hazardous decomposition products:**
 - In the event of fire: see section 5.
- **Substances to be avoided:**
 - Strong oxidizing agents.
- **Hazardous polymerization:**
 - Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Potassium Chromate – as the pure substance:

Acute toxicity

LD50, oral, mouse: 180 mg/Kg – calculated on the pure substance.

Sensitisation

Skin: May cause allergic skin reaction.

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

- **In case of skin contact** : skin irritations.
- **In case of skin absorption** : toxic if absorbed through the skin.
- **In case of eye contact** : eye irritations.
- **In case of Inhalation** : toxic if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
- **In case of ingestion** : toxic if swallowed.

Target organ information

Lungs. Kidneys. Liver. Blood. Eyes. Skin.

Chronic exposure - carcinogen

Result: This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Chronic exposure - mutagen

Result: May alter genetic material.

- **Further data** : further hazardous property cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

SECTION 12 - ECOLOGICAL INFORMATION

- **Ecotoxic effects:**

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

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Potassium chromate – as the pure substance:

Ecotoxicological effects

Test Type: LC50 Fish, Species: Leuciscus idus, time: 96 h: value: 0.029 mg/l

Test Type: EC50 Daphnia, Species: Daphnia magna, time: 48 h: value: 0.002 mg/l

- **Biological effects:**
Harmful effects on aquatic organisms. May cause long-term adverse effects in the aquatic environment.
- **Further ecological data**
Do not allow to enter waters, waste waters, or soil!

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.

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SECTION 14 - TRANSPORT INFORMATION

- Land transport

ADR/RID	: 9, II
UN-No.	: 3316
Name	: CHEMICAL KIT

- Sea transport

IMDG	: 9/UN 3316/PG II
Name	: CHEMICAL KIT
Marine pollutant	: no
Severe marine pollutant	: no

- Air transport

ICAO/IATA	: 9/UN 3316/PG II
Name	: CHEMICAL KIT

These transport data apply to the COMPLETE KIT!

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

Symbol:	T	Toxic.
R-phrases:	43-46-49-52/53	May cause sensitisation by skin contact. May cause heritable genetic damage. May cause cancer by inhalation. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases:	28.1-36/37-45-53-61	After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid exposure - obtain special instructions before use. Avoid release to the environment. Refer to special instructions/safety data sheets.

Contains: Potassium chromate.

SECTION 16 - OTHER INFORMATION

- **Text of any R phrases referred to under heading 2:**
 - 43 : May cause sensitization by skin contact.
 - 46 : May cause heritable genetic damage.
 - 49 : May cause cancer by inhalation.
 - 36/37/38 : Irritating to eyes, respiratory system and skin.
 - 50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Supersedes edition of** : / (1st edition)

- **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.