

**Section 1. Identification of the substance or mixture and of the Company / Undertaking****1.1. Product identification:**Product name: **Test Ca reag. 1**

Commercial code: A3050698

UFI: M300-F07G-2002-A5V7

**1.2. Relevant identified uses of the substance or mixture and uses advised against:**

Description / Uses: Calcium control in marine aquariums. Hobby use for aquariums.

Uses advised against: All uses other than those indicated above.

**1.3. Details of the supplier of the material safety data sheet:**

CROCI S.p.A.

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Competent person responsible for the safety data sheet: Quality department

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Spagna Centro Informativo Antiveleni (ES): +34 91 562 04 20 Svezia 112 – ask for Poisons Information

**Section 2. Hazards Identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008.

Corrosive to Metals (Category 1)	H290
Skin corrosion (Category 1A)	H314
Serious eye damage (Category 1)	H318

Any additional information regarding the risks to health and / or the environment are given in sect. 11 and 12 of this sheet.

Hazard classification and indications:

2.2. **Labeling elements:**

Labelling according Regulation (EC) No 1272/2008.

**Pictogram:**



**Signal word:** Danger

**Hazard Statements:**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

**Precautionary Statements:**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 "IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing."

P310 Immediately call a POISON CENTER or doctor/physician.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Contains:** SODIUM HYDROXIDE

2.3. **Other hazards:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Section 3. Composition / Information on the ingredients**

3.1. **Substances:** Not applicable

3.2. **Mixtures:**

Mixture made by the following substances:

Name of substance	x = Conc. %	Classification acc. to GHS
Sodium Hydroxide CAS 1310-73-2 CE 215-185-5 INDEX 011-002-00-6 Nr. Reg. 01-2119457892-27-xxxx	$1 \leq x \leq 10$	Met. Corr. 1 H290, Skin Corr. 1A H314, Eye Dam. 1 H318

For full text of abbreviations: see SECTION 16.

**Further information:**

**Section 4. First aid measures**

**4.1 Description of first aid measures:**

**General information:** In case of accident or unwellness, seek medical advice immediately.

**Eyes contact:** Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 30-60 minutes. Get medical attention if any discomfort continues.

**Skin contact:** Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

**Inhalation:** Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

**Ingestion:** Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

**4.2. Most important symptoms and effects, both acute and delayed:**

Symptoms of acute poisoning:

Eyes: in particular damage to the conjunctivae, the cornea, the sclera (edema, ulceration / perforation, opacity of the cornea), more rarely also to the retina and choroid. Danger of blindness!

Skin: erythema, erosion with swelling of the tissue showing a soft, gelatinous surface (colliquative necrosis).

Inhalation: toxic irritation, possible dyspnoea, stridor, danger of laryngospasm / glottic edema, pulmonary edema, bronchopneumonia.

Ingestion: painful redness / glassy swelling of the mucous membranes of the mouth / tongue (however, signs of corrosion may also be absent!); pain behind the sternum and in the epigastrium, dysphagia, in certain circumstances emesis (danger of aspiration); in severe cases rapid collapse / shock entry (sometimes fatal); later also bleeding that is difficult to control, perforation of the esophagus (mainly the upper part) and of the stomach (heart); also danger of glottic edema, aspiration pneumonia, shock lung (ARDS); mediastinitis, peritonitis, delayed perforation; stenosis / strictures in the esophagus / heart / pylorus area.

Following severe / severe chemical burns possible lactacidosis (even in the absence of shock), haemolysis and renal failure (consequence of shock).

**4.3. Indication of any immediate medical attention and special treatment:**

Treat symptomatologically.

In the event of an accident or discomfort, consult a doctor immediately (if possible show the instructions for use or the safety data sheet).

**Section 5. Fire-fighting measures**

**5.1. Extinguishing media:**

**Suitable extinguishing media:**

Extinguish with carbon dioxide, foam, powder and nebulized water.

**Unsuitable extinguishing media**

Strong water jet.

**5.2. Special hazards arising from the substance or mixture:**

Avoid breathing combustion products, sodium oxides.

**5.3. Recommendations for those involved in extinguishing fires:**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**Section 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures:****6.1.1 *For those who do not intervene directly:***

Do not take any action involving any personal risk or without proper training. Evacuate the surrounding areas. Do not touch or walk on the spilled material.

Wear suitable protective equipment (including personal protective equipment referred to in section 8 of this Safety Data Sheet) to prevent contamination of skin, eyes and personal clothing. Wear appropriate respirator when ventilation is inadequate.

Do not inhale the vapors. Avoid the dispersion of the product into the environment. Follow the appropriate internal procedures provided for personnel not authorized to intervene directly in the event of accidental release.

**6.1.2 *For those who intervene directly:***

Stop the leak if there is no danger.

Evacuate unauthorized personnel. Wear suitable protective equipment. (see section 8 of this Safety Data Sheet).

Follow the appropriate internal procedures for authorized personnel. Isolate the danger area and deny entry.

Ventilate enclosed spaces before entering.

**6.2. Environmental precautions:**

Prevent the product from entering sewers, surface water, groundwater.

**6.3. Methods and materials for containment and cleaning up:**

Suck up the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.

Provide sufficient ventilation of the place affected by the leak. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

**6.4. Additional information**

Any information regarding personal protection and disposal is given in sections 8 and 13..

**Section 7. Handling and storage****7.1. Precautions for safe handling:****Advices on safe handling:**

Handle and open container with care. Clear contaminated areas thoroughly. Avoid contact with eyes and skin. Do not inhale any dust vapors.

**Advice on general occupational hygiene**

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

**7.2. Conditions for safe storage, including any incompatibilities:**

Keep in the original container tightly closed. Do not store in open or unlabeled containers.

Keep the containers upright and safe, avoiding the possibility of falls or knocks.

Store in a cool place, away from any source of heat and direct exposure to sunlight.

Keep in the original container tightly closed. Do not store in open or unlabeled containers.

Keep the containers upright and safe, avoiding the possibility of falls or knocks.

Keep away from open flames, sparks and heat sources. Avoid direct exposure to the sun.

**7.3. Specific end uses:**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**Section 8. Exposure controls/personal protection****8.1. Exposure limit values:**

Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Workers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>
Consumers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>

**8.2. Exposure control:****Personal protective equipment:**

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all contaminated clothing.

Wash hands before breaks and at the end of work. Avoid contact with the skin.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

The glove material has to be impermeable and resistant to the product/the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further

Marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**

Tightly sealed goggles.

**Section 9. Physical and chemical properties****9.1. Information on basic physical and chemical:**

Physical form: Liquid

Color: Transparent

Odor: Not available

Odor detection threshold: NA (not available)

pH = not determined

Melting point: not determined

Freezing point: not determined

Boiling Point range: not determined

Flash point: not determined

Ignition temperature: not determined

Explosive properties: none

Oxidizing properties: none

Vapor Pressure: not determined

Density: not determined

Dynamic Viscosity: Not determined

Kinematic Viscosity: Not determined

Explosive properties No data available

Oxidizing properties none

**9.2. Other information:**

NA (not available)

**Section 10. Stability and reactivity****10.1. Reactivity:**

SODIUM HYDROXIDE

Contact with metals produces flammable hydrogen gas. Contact with strong acids can cause violent reactions and explosions. Potential danger for exothermic reactions. Corrosive power towards metals.

**10.2. Chemical stability:**

The product is stable under normal conditions of use and storage.

**10.3. Possibility of hazardous reactions:**

Under normal conditions of use and storage no dangerous reactions are foreseeable.

SODIUM HYDROXIDE

Corrosive power towards metals. Risk of explosion on contact with:

bromine, acrylonitrile; butine-2-diol-1,4 (heat), calcium (powder), chloroform / acetone, chloropicrin, furfural, magnesium (moisture), methyl-3-pentene-2-ine-4- ol-1, nitrobenzene / methanol , nitrobenzene / salt, nitromethane, nitroparaffins / salt, peroxides (rare), silver nitrate, tetrachlorobenzene + methanol / heat, 1,1,1-trichloroethanol, zinc (moisture), tin (moisture).

The corrosion capacity of metals increases at temperatures > 60 ° C. Use suitable containers at elevated temperatures.

#### 10.4 **Conditions to avoid:**

SODIUM HYDROXIDE

Avoid exposing the product to high temperatures. Protect from light and humidity. Avoid contact with metals.

#### 10.5. **Incompatible materials**

SODIUM HYDROXIDE

The substance can react dangerously with:

aluminum (powder), chlorine, fluorine, organic substances, phosphorus, acids, water, hydrogen peroxide, acetone, aldol (polymerization), aluminum phosphide, ammonium salts (ammonia), chlorine trifluoride, dichloroethane (self-igniting), diketene (polymerization), epichlorohydrin (polymerization), ethylene oxide, glycol derivatives, hydrogen halides, hydrazine hydrates, hydroquinone, hydroxylamine, potassium persulfate, maleic anhydride, sodium hydroxide, phosphorus trioxide, 2-propenal, 2-propene-1- oil, acid chlorides, hydrogen sulphide, trichlorethene, chloroform, water / combustible substances.

#### 10.6. **Hazardous decomposition products:**

SODIUM HYDROXIDE

Decomposes on heating, developing toxic fumes including sodium oxide.

### **Section 11. Toxicological information**

In the absence of experimental toxicological data on the product itself, any health hazards of the product have been assessed on the basis of the properties of the substances contained, according to the criteria provided for by the reference legislation for classification.

Therefore, consider the concentration of the individual dangerous substances possibly mentioned in sect. 3, to evaluate the toxicological effects resulting from exposure to the product.

#### 11.1 **Information on toxicological effects:**

Metabolism, kinetics, mechanism of action and other information

SODIUM HYDROXIDE

In contact with human skin, at non-irritating concentrations, the passage of ions is slight and absorption difficult.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:> 20 mg / l ATE (Oral) of the mixture:> 2000 mg / kg ATE (Dermal) of the mixture:> 2000 mg / kg

SODIUM HYDROXIDE

According to the REACH regulation, acute toxicity tests do not generally need to be conducted if the substance is classified as corrosive to the skin.

The substance is not expected to be available systemically and effects are expected to be due to pH changes.

SKIN CORROSION / SKIN IRRITATION

Corrosive to the skin

**SODIUM HYDROXIDE**

Method: equivalent or similar to OECD 404 Reliability (Klimisch score): 2

Species: Rabbit

Routes of exposure: cutaneous

Results: The substance causes chemical burns the severity of which is a function of the concentration of the solution, the importance of contamination and the duration of contact. Depending on the depth of the damage, hot and painful erythema, flittene and necrosis are observed. Evolution can be complicated by infections, aesthetic or functional sequelae.

**SERIOUS EYE DAMAGE / EYE IRRITATION**

Causes serious eye damage

**SODIUM HYDROXIDE**

Method: OECD 405 (2% solution) Reliability (Klimisch score): 2 Species: Rabbit

Routes of exposure: ocular

Results: The substance causes immediate pain, tearing and conjunctival hyperemia. There may be sequelae such as: conjunctival adhesions, corneal opacities, cataracts, glaucoma and even blindness.

**RESPIRATORY OR SKIN SENSITIZATION**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

Reliability (Klimisch score): 2 Species: man

Routes of exposure: cutaneous Results: not sensitizing

Reference: Journal of Dermatological Science, 10, 159-165, 1995

**MUTAGENICITY ON GERMINAL CELLS**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

Based on available data, the substance has no mutagenic effects and is not classified under the relevant hazard class CLP.

**CARCINOGENICITY**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

A study dated (1976) on workers with chronic exposure to caustic soda did not observe any relationship between cancer and duration or intensity of exposure.

**REPRODUCTION TOXICITY**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

Based on available data, the substance has no reproductive toxicity effects and is not classified under the relevant CLP hazard class.

**SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

Inhalation of vapors or aerosols immediately causes: rhinorrhea, sneezing, nasal and pharyngeal burning sensation, cough, dyspnoea and chest pain. Complications are laryngeal edema or a bronchospasm.

At the end of exposure, symptoms may subside, but delayed pulmonary edema may also occur within 48 hours.



The substance is corrosive and ingestion of a concentrated sodium hydroxide solution causes pain in the oral cavity, retrosternal and epigastric region associated with drool and, frequent vomiting with traces of blood, esophagic or gastric perforation

**SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

Following inhaled occupational exposure, a case of severe obstructive pathology with cough, dyspnea and tachypnea after 20 years of exposure is reported in the literature. Long-term skin exposure can cause dermatitis

**DANGER IN CASE OF SUCTION**

It does not meet the classification criteria for this hazard class

**SODIUM HYDROXIDE**

No data are available on the hazard in case of aspiration.

**Section 12. Ecological information**

Use according to good working practices, avoiding to disperse the product in the environment. Notify the competent authorities if the product has reached watercourses or if it has contaminated the soil or vegetation.

**12.1 Toxicity:****SODIUM HYDROXIDE**

*Acute toxicity Crustaceans:* (Ceriodaphnia sp.) EC50-48 hours: 40 mg / l Immobilization test. (EU, 2007; OECD, 2002)  
Reference: Warne et al. (1999).

*Acute toxicity (fish):* data not available.

There are no reliable studies and no new studies have been generated as all the available tests have led to a rather small range of toxicity values (acute toxicity tests for fish: from 35 to 189 mg / l). pH ranges tolerated by the main taxonomic groups.

*Growth inhibition (algae):* data not available.

Long-term effects: data not available.

**12.2 Persistence and degradability:****SODIUM HYDROXIDE**

Degradability: data not available, inorganic substance.

**12.3 Bio accumulative potential:**

Information not available

**12.4 Mobility in the soil:**

Information not available.

**12.5 Results of PBT and vPvB assessment:**

The substances in the mixture do not meet the PBT/vPvB criteria according the REACH annex XIII

**12.6 Other adverse effects:**

Information not available

**Section 13. Disposal considerations****13.1. Waste treatment methods:**

Reuse if possible. Product residues are to be considered special hazardous waste. The dangerousness of the waste that partially contains this product must be evaluated according to the laws in force. (Ref. Annex D - Part IV of Legislative Decree no. 152/2006 and subsequent amendments and adjustments).

Disposal must be entrusted to an authorized waste management company, in compliance with national and possibly local regulations. The legal responsibility for disposal lies with the producer / holder of the waste.

Different CER (European Refusal Code) codes could be applied to this product according to the specific circumstances that generated the waste, any alterations and contaminations.

The product as it is, out of specification in the original packaging, or poured into a suitable container for disposal as waste, or the product in specification but no longer usable (for example following an accidental spill), is to be classified with a code CER compatible with the description of use indicated in section 1.2.

The suitable final destination of the waste will be assessed by the manufacturer according to the chemical-physical characteristics of the waste itself compatible with the authorized plant to which it will be conferred for recovery, treatment or final disposal in the manner provided for by current regulations.

Disposal via wastewater is not allowed.

**CONTAMINATED PACKAGING**

Contaminated packaging must be sent, properly labeled, for recovery or disposal in compliance with national regulations on waste management and must be classified with the following EWC code:

15 01 10 \*: packaging containing residues of dangerous substances or contaminated by these substances.

**Section 14. Transport information**

14.1. **UN number:** ADR / RID, IMDG, IATA: 1824

14.2. **UN proper shipping name:**

ADR / RID: IDROSSIDO DI SODIO IN SOLUZIONE

IMDG: SODIUM HYDROXIDE SOLUTION

IATA: SODIUM HYDROXIDE SOLUTION

14.3. **Transport hazard class(es):**

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8



14.4. **Packing group:** Not restricted

ADR / RID, IMDG, IATA: II

14.5. **Environmental hazards:**

ADR / RID: NO

IMDG: NO

IATA: NO

**14.6. Special precautions for users:**

ADR / RID:	HIN - Kemler: 80	Limited quantities: 1 L	Tunnel restriction code: (E)
	Special Disposition: -		
IMDG:	EMS: F-A, S-B	Limited quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging Instructions: 855
	Pass.:	Maximum quantity: 1 L	Packaging Instructions: 851
	Special instructions:	A3, A803	

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC code:** Not relevant information**Section 15. Regulatory information****15.1. Standards and legislation on health, safety and environment specific for the substance or mixture:***Seveso Category - Directive 2012/18 / EC: None**Restrictions relating to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006*  
*Product*

Point 3

Substances or liquid mixtures that correspond to the criteria relating to one of the following hazard classes or categories set out in Annex I of Regulation (EC) No. 1272/2008:

- hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;
- hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or development, 3.8 effects other than narcotic effects, 3.9 and 3.10;
- hazard class 4.1;
- hazard class 5.1.

*Substances in Candidate List (Art. 59 REACH)*Based on available data, the product does not contain SVHC substances in percentage  $\geq 0.1\%$ .*Substances subject to authorization (Annex XIV REACH) None**Substances subject to export notification obligation Reg. (EC) 649/2012: None**Substances subject to the Rotterdam Convention: None**Substances subject to the Stockholm Convention: None**Sanitary checks*

Workers exposed to this chemical agent dangerous to health must be subjected to health surveillance carried out in accordance with the provisions of art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed as irrelevant, in accordance with the provisions of art. 224 paragraph 2.

### 15.2. **Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

### **Section 16. Other information**

#### *Training for workers:*

The training of workers must include contents, updates and duration according to the risk profiles assigned to the working sectors to which they belong, according to the procedures provided for by Legislative Decree 81/2008.

#### *Classification and procedure used to derive it according to Regulation (EC) 1272/2008 (CLP) in relation to mixtures:*

Classification according to Regulation (EC) no. 1272/2008	Classification procedure
Corrosive to Metals (Category 1)	Expert judgment
Skin corrosion (Category 1A)	Calculation method
Serious eye damage (Category 1)	Calculation method

**Met. Corr. 1** Corrosive to Metals (Category 1)

**Skin Corr. 1A** Skin corrosion (Category 1A)

**Eye Dam. 1** Serious eye damage (Category 1)

**H290** May be corrosive to metals.

**H314** Causes severe skin burns and eye damage.

**H318** Causes serious eye damage

#### LEGEND:

- ADR: European agreement for the transport of dangerous goods by road
- CAS NUMBER: Number of the Chemical Abstract Service
- EC50: Concentration that gives effect to 50% of the population subject to testing
- CE NUMBER: Identification number in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived no effect level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for Classification and Labeling of Chemicals
- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Concentration of immobilization of 50% of the population subject to testing
- IMDG: International maritime code for the transport of dangerous goods
- IMO: International Maritime Organization
  
- INDEX NUMBER: Identification number in Annex VI of the CLP
- LC50: Lethal Concentration 50%

- LD50: Lethal Dose 50%
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predicted environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predicted No Effect Concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation for the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration which must not be exceeded during any moment of occupational exposure.
- TWA STEL: Short term exposure limit
- TWA: Weighted average exposure limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Water hazard class (Germany).

**GENERAL BIBLIOGRAPHY:**

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
  2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
  3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
  6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
  7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
  8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
  9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
  10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
  11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA Agency website
  - Database of SDS models of chemical substances - Ministry of Health and National Institute of Health

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

**Section 1. Identification of the substance or mixture and of the Company / Undertaking****1.1. Product identification:**Product name: **Test Ca reag. 2**

Commercial code: A3050698

**1.2. Relevant identified uses of the substance or mixture and uses advised against:**

Description / Uses: Calcium control in marine aquariums. Hobby use for aquariums.

Uses advised against: All uses other than those indicated above.

**1.3. Details of the supplier of the material safety data sheet:**

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**Section 2. Hazards Identification****2.1. Classification of the substance or mixture**

The product is not classified as hazardous according to the provisions of Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

**2.2. Labeling elements:**

Labeling in accordance with Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

**Pictogram:** None**Signal word:** None**Hazard Statements:** None**Precautionary Statements:** None

**2.3. Other hazards:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Section 3. Composition / Information on the ingredients**

3.1. **Substances:** Not applicable

3.2. **Mixtures:**

The product does not contain substances classified as hazardous to health or the environment pursuant to the provisions of Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and adjustments) in quantities that require a declaration.

**Further information:**

**Section 4. First aid measures****4.1 Description of first aid measures:**

There are no known episodes of damage to the personnel assigned to use the product. If necessary, the following general measures are taken:

**INHALATION:** Take the subject to fresh air. If breathing stops, give artificial respiration. Consult a physician immediately.

**INGESTION:** Get medical attention immediately. Induce vomiting only on medical advice. Do not administer anything by mouth if the subject is unconscious.

**EYES and SKIN:** Wash with plenty of water. In case of persistent irritation, consult a physician.

**PROTECTION MEASURES FOR FIRST AID:** for the PPE necessary for first aid interventions refer to section 8.2 of this information sheet.

**4.2. Most important symptoms and effects, both acute and delayed:**

Dust can cause mechanical irritation to eyes, skin and respiratory tract. Dust particles can cause abrasive eye injuries.

**4.3. Indication of any immediate medical attention and special treatment:**

Treat symptomatologically.

In the event of an accident or discomfort, consult a doctor immediately.

**Section 5. Fire-fighting measures****5.1. Extinguishing media:**

**Suitable extinguishing media:**

Extinguish with carbon dioxide, foam, powder and nebulized water.

**Unsuitable extinguishing media**

No one in particular.

**5.2. Special hazards arising from the substance or mixture:**

Avoid breathing combustion products, sodium oxides.



**5.3. Recommendations for those involved in extinguishing fires:**

Use respiratory protection. Safety helmet and complete protective clothing. Nebulized water can be used to protect people involved in extinction. Cool containers with water jets.

**Section 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures:**

In case of dust dispersed in the air, adopt respiratory protection.

These indications are valid both for the workers and for emergency interventions.

**6.2. Environmental precautions:**

Prevent the product from entering sewers, surface water, groundwater.

**6.3. Methods and materials for containment and cleaning up:**

Dike with earth or inert material. Collect most of the material and eliminate the residue with jets of water. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

**6.4. Additional information**

Any information regarding personal protection and disposal is given in sections 8 and 13.

**Section 7. Handling and storage****7.1. Precautions for safe handling:**

Handle the product after consulting all the other sections of this safety data sheet. Avoid the dispersion of the product in the environment. Do not eat, drink or smoke during use.

**7.2. Conditions for safe storage, including any incompatibilities:**

Wash your hands before eating, drinking and smoking. Do not swallow.

Avoid contact with eyes, skin and clothing. Store in the original container protected from direct sunlight in a dry, cool and well-ventilated area. Keep container tightly closed and sealed until use.

Keep containers away from any incompatible materials, checking section 10.

**7.3. Specific end uses:**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**Section 8. Exposure controls/personal protection****8.1. Exposure limit values:**

Information not available

**8.2. Exposure control:**

Observe the usual safety measures when handling chemicals.

**HAND PROTECTION**

The use of protective gloves is recommended. Wash your hands with soap and water.

**SKIN PROTECTION**

Unnecessary.

**EYE PROTECTION**

The use of protective goggles is recommended.

**RESPIRATORY PROTECTION**

Unnecessary.

**ENVIRONMENTAL EXPOSURE CONTROLS**

Emissions from manufacturing processes, including those from ventilation equipment should be controlled for compliance with environmental protection legislation.

**Section 9. Physical and chemical properties****9.1. Information on basic physical and chemical:**

Physical form: Powder

Color: Gray / Purple

Odor: Not available

Odor detection threshold: NA (not available)

pH = not determined

Melting point: not determined

Freezing point: not determined

Boiling Point range: not determined

Flash point: not determined

Ignition temperature: not determined

Explosive properties: none

Oxidizing properties: none

Vapor Pressure: not determined

Density: not determined

Dynamic Viscosity: Not determined

Kinematic Viscosity: Not determined

Explosive properties No data available

Oxidizing properties none

**9.2. Other information:**

NA (not available)

**Section 10. Stability and reactivity****10.1. Reactivity:**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability:**

The product is stable under normal conditions of use and storage.

**10.3. Possibility of hazardous reactions:**

Under normal conditions of use and storage no dangerous reactions are foreseeable.

**10.4 Conditions to avoid:**

None in particular. However, follow the usual precautions for chemicals products.

#### 10.5. Incompatible materials

Information not available

#### 10.6. Hazardous decomposition products:

Carbon oxides.

### Section 11. Toxicological information

There are no known episodes of damage to health due to exposure to the product. In any case, it is recommended to operate in compliance with the rules of good industrial hygiene.

#### 11.1 Information on toxicological effects:

ACUTE TOXICITY

LC50 (Inhalation) of the mixture: Not classified LD50 (Oral) of the mixture: Not classified LD50 (Dermal) of the mixture: Not classified

SKIN CORROSION / SKIN IRRITATION

It does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / EYE IRRITATION

It does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITIZATION

It does not meet the classification criteria for this hazard class

MUTAGENICITY ON GERMINAL CELLS

It does not meet the classification criteria for this hazard class

CARCINOGENICITY

It does not meet the classification criteria for this hazard class

REPRODUCTION TOXICITY

It does not meet the classification criteria for this hazard class

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE

It does not meet the classification criteria for this hazard class

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE

It does not meet the classification criteria for this hazard class

DANGER IN CASE OF SUCTION

It does not meet the classification criteria for this hazard class

### Section 12. Ecological information

Use according to good working practices, avoiding to disperse the product in the environment. Notify the competent authorities if the product has reached watercourses or if it has contaminated the soil or vegetation.

#### 12.1 Toxicity:

Information not available.

**12.2 Persistence and degradability:**

Information not available.

**12.3 Bio accumulative potential:**

Information not available

**12.4 Mobility in the soil:**

Information not available.

**12.5 Results of PBT and vPvB assessment:**

The substances in the mixture do not meet the PBT/vPvB criteria according the REACH annex XIII

**12.6 Other adverse effects:**

Information not available

**Section 13. Disposal considerations****13.1. Waste treatment methods:**

Reuse if possible. The residues of the product as such are to be considered special non-hazardous waste.

Disposal must be entrusted to an authorized waste management company, in compliance with national and possibly local regulations.

**CONTAMINATED PACKAGING**

Contaminated packaging must be sent for recovery or disposal in compliance with national waste management regulations.

**Section 14. Transport information**

The product is not included in the scope of the regulations on the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.1. **UN number:** Na

14.2. **UN proper shipping name:** Na

14.3. **Transport hazard class(es):** Na

14.4. **Packing group:** Na

14.5. **Environmental hazards:** Na

14.6. **Special precautions for users:** Na

14.7. **Transport in bulk according to Annex II of MARPOL and the IBC code:** Not relevant information

**Section 15. Regulatory information****15.1. Standards and legislation on health, safety and environment specific for the substance or mixture:**

*Seveso Category - Directive 2012/18 / EC:* None

*Restrictions relating to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006*

*Product:* None

*Substances in Candidate List (Art. 59 REACH):*

Based on available data, the product does not contain SVHC substances in percentage  $\geq 0.1\%$ .

*Substances subject to authorization (Annex XIV REACH):* None

*Substances subject to export notification obligation Reg. (EC) 649/2012:* None

*Substances subject to the Rotterdam Convention:* None

*Substances subject to the Stockholm Convention:* None

## 15.2. **Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## **Section 16. Other information**

### LEGEND:

- ADR: European agreement for the transport of dangerous goods by road
- CAS NUMBER: Number of the Chemical Abstract Service
- EC50: Concentration that gives effect to 50% of the population subject to testing
- CE NUMBER: Identification number in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived no effect level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for Classification and Labeling of Chemicals
- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Concentration of immobilization of 50% of the population subject to testing
- IMDG: International maritime code for the transport of dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identification number in Annex VI of the CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predicted environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predicted No Effect Concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation for the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration which must not be exceeded during any moment of occupational exposure.
- TWA STEL: Short term exposure limit
- TWA: Weighted average exposure limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Water hazard class (Germany).

### GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
  2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
  3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
  6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
  7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
  8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
  9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
  10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
  11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA Agency website
  - Database of SDS models of chemical substances - Ministry of Health and National Institute of Health

### **Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

**Section 1. Identification of the substance or mixture and of the Company / Undertaking****1.1. Product identification:**Product name: **Test Ca reag. 3**

Commercial code: A3050698

**1.2. Relevant identified uses of the substance or mixture and uses advised against:**

Description / Uses: Calcium control in marine aquariums. Hobby use for aquariums.

Uses advised against: All uses other than those indicated above.

**1.3. Details of the supplier of the material safety data sheet:**

CROCI S.p.A.

Via S. Alessandro, 8 - 21040 Castronno (VA) – ITALY. Tel. +39 0332 870860 Fax. +39 0332 462439

Competent person responsible for the safety data sheet: Quality department

e-mail Technical Responsible: giuseppe.dangelo@croci.net. Phone number: +39 0332 870860

**1.4. Emergency Phone Number:**

Austria Poison Information Center (AT): + 43- (0) 1-406 43 43

Belgium Poison Control Center (BE): +32 70 245 245

Croatia Poison Control (CR): +385 1 2348 342

Czech Republic Poison Control (CS): +420 224 919 293, +420 224 915 402

Denmark Direct Telephone Line Poison Control (DK): +45 82 12 12 12

Estonia Poison Control (ET): 16662, (+372) 626 93 90

Finland Poison Information Center (FI): +358 9 471 977

France ORFILA (FR): + 01 45 42 59 59

Germany Berlin Poison Center (DE): +49 030 30686 790 (24-hour assistance, Consulting in German and English)

Greece Poison Information Center (EL): (0030) 2107793777

Hungary Poison Information Service (HU): (+ 36-80) 201-199 Islanda Poison Information Center: 543 2222

Italia Centro Antiveleni, Milano (IT): +39 02 6610 1029 Lettonia Poison Information Center (LV): +371 67042473

Lituania Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378 Paesi Bassi National Poisons

Information Center (NVIC): 030-274 8888 Norvegia Poison Center: 22 59 13 00

Portogallo Centro Informativo Antiveleni (PT): +351 21 330 3284

Spagna Centro Informativo Antiveleni (ES): +34 91 562 04 20 Svezia 112 – ask for Poisons Information

**Section 2. Hazards Identification****2.1. Classification of the substance or mixture**

The product is not classified as hazardous according to the provisions of Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

**2.2. Labeling elements:**

Labeling in accordance with Regulation (EC) 1272/2008 (CLP) and subsequent amendments.

**Pictogram:** None**Signal word:** None**Hazard Statements:** None**EUH210** - Safety data sheet available on request

**Precautionary Statements:** None

2.3. **Other hazards:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Section 3. Composition / Information on the ingredients**

3.1. **Substances:** Not applicable

3.2. **Mixtures:**

Mixture made by the following substances:

Name of substance	x = Conc. %	Classification acc. to GHS
Disodium dihydrogen ethylenediaminetetraacetate CAS 139-33-3 CE 205-358-3 INDEX – Nr. Reg. 01-2119486775-20-0000	$1 \leq x \leq 2,5$	Acute Tox. 4 H332, STOT RE 2 H373

For full text of abbreviations: see SECTION 16.

The product does not contain substances classified as hazardous to health or the environment pursuant to the provisions of Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and adjustments) in quantities that require a declaration.

**Further information:**

**Section 4. First aid measures**

4.1 **Description of first aid measures:**

**EYES:** Remove any contact lenses. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids well. Consult a physician if the problem persists.

**SKIN:** Take off contaminated clothing. Wash immediately and abundantly with water. If irritation persists, consult a physician. Wash the contaminated garments before reusing them.

**INHALATION:** Take the subject to fresh air. If breathing is difficult, call a doctor right away.

**INGESTION:** Get medical attention immediately. Induce vomiting only on medical advice. Do not administer anything by mouth if the subject is unconscious and if not authorized by the doctor.

**PROTECTION MEASURES FOR FIRST AID:** for the PPE necessary for first aid interventions refer to section 8.2 of this safety data sheet.

4.2. **Most important symptoms and effects, both acute and delayed:**

No specific information on symptoms and effects caused by the product is known.

4.3. **Indication of any immediate medical attention and special treatment:**

Treat symptomatologically.



In the event of an accident or discomfort, consult a doctor immediately.

### Section 5. Fire-fighting measures

#### 5.1. Extinguishing media:

##### Suitable extinguishing media:

The extinguishing media are the traditional ones: foam, powder.

##### Unsuitable extinguishing media

Carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture:

Avoid breathing combustion products, sodium oxides.

#### 5.3. Recommendations for those involved in extinguishing fires:

Use respiratory protection. Safety helmet and complete protective clothing. Nebulized water can be used to protect people involved in extinction. Cool containers with water jets.

### Section 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures:

##### 6.1.1 *For those who do not intervene directly:*

Do not take any action involving any personal risk or without proper training. Evacuate the surrounding areas. Do not touch or walk on the spilled material.

Wear suitable protective equipment (including personal protective equipment referred to in section 8 of this Safety Data Sheet) to prevent contamination of skin, eyes and personal clothing. Wear appropriate respirator when ventilation is inadequate.

Do not inhale the vapors. Avoid the dispersion of the product into the environment. Follow the appropriate internal procedures provided for personnel not authorized to intervene directly in the event of accidental release.

##### 6.1.2 *For those who intervene directly:*

Stop the leak if there is no danger.

Evacuate unauthorized personnel. Wear suitable protective equipment. (see section 8 of this Safety Data Sheet).

Follow the appropriate internal procedures for authorized personnel. Isolate the danger area and deny entry.

Ventilate enclosed spaces before entering.

In case of dust dispersed in the air, adopt respiratory protection.

These indications are valid both for the workers and for emergency interventions.

#### 6.2. Environmental precautions:

Prevent the product from entering sewers, surface water, groundwater.

#### 6.3. Methods and materials for containment and cleaning up:

Suck up the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.

Provide sufficient ventilation of the place affected by the leak. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. **Additional information**

Any information regarding personal protection and disposal is given in sections 8 and 13.

**Section 7. Handling and storage**

7.1. **Precautions for safe handling:**

Handle the product after consulting all the other sections of this safety data sheet. Avoid the dispersion of the product in the environment. Do not eat, drink or smoke during use.

7.2. **Conditions for safe storage, including any incompatibilities:**

Wash your hands before eating, drinking and smoking. Do not swallow.

Avoid contact with eyes, skin and clothing. Store in the original container protected from direct sunlight in a dry, cool and well-ventilated area. Keep container tightly closed and sealed until use.

Keep containers away from any incompatible materials, checking section 10.

7.3. **Specific end uses:**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**Section 8. Exposure controls/personal protection**

**8.1. Exposure limit values:**

<b>Disodium dihydrogen ethylenediaminetetraacetate</b>								
Predicted concentration of no effect on the environment - PNEC								
Reference value in fresh water				2,2				mg/l
Reference value in sea water				0,22				mg/l
Reference value for water, intermittent release				1,2				mg/l
Reference value for microorganisms STP				43				mg/l
Reference value for the terrestrial compartment				0,72				mg/kg
<b>Healty - Derived level of no effect - DNEL / DMEL</b>								
Route of Exposition	Effects on consumers				Effects on workers			
	Acute place	Acute systemic	Chronic place	Systemic chronic	Acute systemic	Acute place	Chronic place	Systemic chronic
Oral			VND	25 mg/kg bw/d				
Inhalation	1,2 mg/m3	VND	0,6 mg/m3	VND	3 mg/m3	VND	1,5 mg/m3	VND

VND = hazard identified but none DNEL/PNEC available; NEA = no exposure expected; NPI = no hazards identified

**8.2. Exposure control:**

Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local exhaust.

For the choice of personal protective equipment, if necessary, seek advice from your chemical suppliers. Personal protective equipment must bear the CE mark which certifies their compliance with current regulations.

**HAND PROTECTION**

Protect hands with category III work gloves (ref. Standard EN 374).

For the final choice of the material of the work gloves it is necessary to consider: compatibility, degradation, breakage time and permeation.

In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is not foreseeable. Gloves have a wear time that depends on the duration and mode of use.

#### SKIN PROTECTION

Wear category I work clothes with long sleeves and safety footwear for professional use (ref. Regulation 2016/425 and standard EN ISO 20344). Wash with soap and water after removing protective clothing.

#### EYE PROTECTION

It is recommended to wear airtight protective goggles (ref. Standard EN 166).

#### RESPIRATORY PROTECTION

In case of exceeding the threshold value (eg. TLV-TWA) of the substance or of one or more of the substances present in the product, it is recommended to wear a mask with a type A filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (ref. standard EN 14387). If there are gases or vapors of a different nature and / or gases or vapors with particles (aerosols, fumes, mists, etc.), combined filters must be provided. The use of respiratory protection means is necessary in case the technical measures adopted are not sufficient to limit the exposure of the worker to the threshold values taken into consideration. The protection offered by the masks is however limited.

In the event that the substance in question is odorless or its olfactory threshold is higher than the relative TLV-TWA and in case of emergency, wear an open-circuit compressed air breathing apparatus (ref. EN 137 standard) or a self-contained breathing apparatus. outdoor air (ref. EN 138 standard). For the correct choice of the respiratory protection device, refer to the EN 529 standard.

#### ENVIRONMENTAL EXPOSURE CONTROLS

Emissions from manufacturing processes, including those from ventilation equipment should be controlled for compliance with environmental protection legislation.

### **Section 9. Physical and chemical properties**

#### 9.1. Information on basic physical and chemical:

Physical form: Liquid

Color: Gray / Transparent

Odor: Not available

Odor detection threshold: NA (not available)

pH = not determined

Melting point: not determined

Freezing point: not determined

Boiling Point range: not determined

Flash point: not determined

Ignition temperature: not determined

Explosive properties: none

Oxidizing properties: none

Vapor Pressure: not determined

Density: not determined

Dynamic Viscosity: Not determined

Kinematic Viscosity: Not determined

Explosive properties No data available

Oxidizing properties none

9.2. **Other information:**

NA (not available)

**Section 10. Stability and reactivity**

10.1. **Reactivity:**

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. **Chemical stability:**

The product is stable under normal conditions of use and storage.

10.3. **Possibility of hazardous reactions:**

Under normal conditions of use and storage no dangerous reactions are foreseeable.

10.4 **Conditions to avoid:**

None in particular. However, follow the usual precautions for chemicals products.

10.5. **Incompatible materials**

Disodium dihydrogen ethylenediaminetetraacetate

Aluminum, copper, copper alloys, nickel, zinc.

Strong oxidizing agents.

10.6. **Hazardous decomposition products:**

Carbon oxides.

**Section 11. Toxicological information**

In the absence of experimental toxicological data on the product itself, any health hazards of the product have been assessed on the basis of the properties of the substances contained, according to the criteria provided for by the reference legislation for classification.

Therefore, consider the concentration of the individual dangerous substances possibly mentioned in sect. 3, to evaluate the toxicological effects resulting from exposure to the product.

11.1 **Information on toxicological effects:**

ACUTE TOXICITY

ATE (Inhalation) of the mixture:> 20 mg / l ATE (Oral) of the mixture:> 2000 mg / kg ATE (Dermal) of the mixture:> 2000 mg / kg

Disodium dihydrogen ethylenediaminetetraacetate Method: BASF-TEST

Reliability (Klimisch score): 2 Species: rat (Male / Female) Routes of exposure: oral

Results LD50: 2800 mg / kg

Method: OECD 412 Reliability (Klimisch score): 1 Species: rat (Wistar Male)

Routes of exposure: inhalation (aerosol) LOAEC results: 30 mg / m<sup>3</sup>

The substance is considered acute toxic Cat. 4 by inhalation

Acute toxicity (dermal): data not available.

#### SKIN CORROSION / SKIN IRRITATION

It does not meet the classification criteria for this hazard class

#### SERIOUS EYE DAMAGE / EYE IRRITATION

It does not meet the classification criteria for this hazard class

#### RESPIRATORY OR SKIN SENSITIZATION

It does not meet the classification criteria for this hazard class

#### MUTAGENICITY ON GERMINAL CELLS

It does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

It does not meet the classification criteria for this hazard class

#### REPRODUCTION TOXICITY

It does not meet the classification criteria for this hazard class

#### SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE

It does not meet the classification criteria for this hazard class

#### SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE

It does not meet the classification criteria for this hazard class

#### DANGER IN CASE OF SUCTION

It does not meet the classification criteria for this hazard class.

## Section 12. Ecological information

Use according to good working practices, avoiding to disperse the product in the environment. Notify the competent authorities if the product has reached watercourses or if it has contaminated the soil or vegetation.

### 12.1 Toxicity:

Disodium dihydrogen ethylenediaminetetraacetate  
LC50 - Pesci

41 mg/l/96h *Lepomis macrochirus*; EU Risk Assessment; Read across

EC50 - Crostacei

140 mg/l/48h *Daphnia magna*; DIN 38412, part11

EC50 - Alghe / Piante Acquatiche

> 100 mg/l/72h *Pseudokirchneriella subcapitata*; OECD 201; Read across

NOEC Cronica Pesci

> 25,7 mg/l/35d *Danio Rerio*; OECD 210; Read across

NOEC Cronica Crostacei

25 mg/l/21d *Daphnia magna*; ECC XI/681/86, Draft 4

### 12.2 Persistence and degradability:

Disodium dihydrogen ethylenediaminetetraacetate

NOT rapidly degradable PN-88 / C-05561: 54.9% in 20d

### 12.3 Bio accumulative potential:

Disodium dihydrogen ethylenediaminetetraacetate

BCF 1,1 EU Risk Assessment

### 12.4 Mobility in the soil:

Information not available.

#### 12.5 **Results of PBT and vPvB assessment:**

The substances in the mixture do not meet the PBT/vPvB criteria according the REACH annex XIII

#### 12.6 **Other adverse effects:**

Information not available

### **Section 13. Disposal considerations**

#### 13.1. **Waste treatment methods:**

Product residues are to be considered special non-hazardous waste. The dangerousness of the waste that partially contains this product must be evaluated according to the laws in force. (Ref. Annex D - Part IV of Legislative Decree no. 152/2006 and subsequent amendments and adjustments).

Disposal must be entrusted to an authorized waste management company, in compliance with national and possibly local regulations. The legal responsibility for disposal lies with the producer / holder of the waste.

Different CER (European Waste Code) codes could be applied to this mixture according to the specific circumstances that generated the waste, any alterations and contaminations.

The product as it is, out of specification in the original packaging, or poured into a suitable container for disposal as waste, or the product in specification but no longer usable (for example following an accidental spill), is to be classified with a code CER compatible with the description of use indicated in section 1.2.

The suitable final destination of the waste will be assessed by the manufacturer according to the chemical-physical characteristics of the waste itself compatible with the authorized plant to which it will be conferred for recovery, treatment or final disposal in the manner provided for by current regulations.

Disposal via wastewater is not allowed.

#### CONTAMINATED PACKAGING

Contaminated packaging must be sent, properly labeled, for recovery or disposal in compliance with national regulations on waste management and must be classified with the following EWC code:

15 01 01: paper and cardboard packaging

15 01 02: plastic packaging

15 01 03: wooden packaging

15 01 04: metal packaging

15 01 05: packaging in composite materials

15 01 06: mixed material packaging

15 01 07: glass packaging

15 01 09: textile packaging.

### **Section 14. Transport information**

The product is not included in the scope of the regulations on the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

#### 14.1. **UN number:** Na

- 14.2. **UN proper shipping name:** Na
- 14.3. **Transport hazard class(es):** Na
- 14.4. **Packing group:** Na
- 14.5. **Environmental hazards:** Na
- 14.6. **Special precautions for users:** Na
- 14.7. **Transport in bulk according to Annex II of MARPOL and the IBC code:** Not relevant information

**Section 15. Regulatory information****15.1. Standards and legislation on health, safety and environment specific for the substance or mixture:**

*Seveso Category - Directive 2012/18 / EC:* None

*Restrictions relating to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006*

*Product:* None

*Substances in Candidate List (Art. 59 REACH):*

Based on available data, the product does not contain SVHC substances in percentage  $\geq 0.1\%$ .

*Substances subject to authorization (Annex XIV REACH):* None

*Substances subject to export notification obligation Reg. (EC) 649/2012:* None

*Substances subject to the Rotterdam Convention:* None

*Substances subject to the Stockholm Convention:* None

**15.2. Chemical Safety Assessment**

A chemical safety assessment has been carried out for the following contained substances:

Disodium dihydrogen ethylenediaminetetraacetate

**Section 16. Other information**

Text of hazard (H) indications mentioned in sections 2-3 of the sheet:

**Acute Tox. 4** Acute toxicity, category 4

**STOT RE 2** Specific target organ toxicity - repeated exposure, category 2

**H332** Harmful if inhaled.

**H373** May cause damage to organs through prolonged or repeated exposure.

**EUH210** Safety data sheet available on request.

**LEGEND:**

- ADR: European agreement for the transport of dangerous goods by road
- CAS NUMBER: Number of the Chemical Abstract Service
- EC50: Concentration that gives effect to 50% of the population subject to testing
- CE NUMBER: Identification number in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived no effect level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for Classification and Labeling of Chemicals

- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Concentration of immobilization of 50% of the population subject to testing
- IMDG: International maritime code for the transport of dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identification number in Annex VI of the CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- OEL: Occupational exposure level
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predicted environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predicted No Effect Concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation for the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration which must not be exceeded during any moment of occupational exposure.
- TWA STEL: Short term exposure limit
- TWA: Weighted average exposure limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Water hazard class (Germany).

**GENERAL BIBLIOGRAPHY:**

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
  2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
  3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
  6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
  7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
  8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
  9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
  10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
  11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology



- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA Agency website
- Database of SDS models of chemical substances - Ministry of Health and National Institute of Health

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.