SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: CTX-22 Hardness enhacer
Chemical Name: calcium chloride
Index No: 017-013-00-2
CAS No: 10043-52-4
EC No: 233-140-8
Registration No: 01-2119494219-28-XXXX

1.2 Relevant identified uses of the substance and uses advised against.

Calcic hardness regulator
Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: Fluidra Comercial España
Address: Pintor Velazquez 10
City: 08213 Polinyà
Province: (Barcelona) Spain
Telephone: 902 42 32 22
Fax: +34 93 713 41 11
E-mail: clientes@fluidra.es

1.4 Emergency telephone number:
Contains:
calcium chloride

2.3 Other hazards.
In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.
Chemical Name: calcium chloride
Index No: 017-013-00-2
CAS No: 10043-52-4
CE No: 233-140-8
Registration No: 01-2119494219-28-XXXX

3.2 Mixtures.
Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.
If wearing contact lenses, remove them. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact.
If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting. Remove the person from the contaminated area.
If the person is unconscious, lay on his side with head lower and knees half bent.
Keep body temperature.
Move to the intoxicated person to a hospital and, whenever possible, bring the container or label. Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
OBTAIN IMMEDIATE MEDICAL ATTENTION.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

4.2 Most important symptoms and effects, both acute and delayed.
Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate. Can cause allergic reactions.
Contact with skin: irritation.
Contact with eyes: irritation.
Swallowing: irritation to mucosal and digestive tract corrosion.
Nausea

P337+P313 If eye irritation persists: Get medical advice/attention.
Vomiting
Delayed hypersensitivity
Hepatic-renal disorders and neurotoxic.

4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
The dilution with water or milk is appropriate if there was no vomiting (adults from 120 - 140 ml, children do not exceed 120 ml).
Contraindication: Neutralization with bicarbonate.
In case of ingestion, assess the performance of an endoscopy.
Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.
Recommended extinguishing methods.
Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the substance.
Special risks.
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.
Fire protection equipment.
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.
For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.
Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.
The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.
For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety. Keep the product in containers made of a material identical to the original.

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

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

**7.3 Specific end use(s).**

None in particular.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.**

**8.1 Control parameters.**

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

**8.2 Exposure controls.**

**Measures of a technical nature:** Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<table>
<thead>
<tr>
<th>Concentration:</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses:</td>
<td>Calcic hardness regulator</td>
</tr>
<tr>
<td>Breathing protection:</td>
<td></td>
</tr>
<tr>
<td>If the recommended technical measures are observed, no individual protection equipment is necessary.</td>
<td></td>
</tr>
<tr>
<td>Hand protection:</td>
<td></td>
</tr>
<tr>
<td>If the product is handled correctly, no individual protection equipment is necessary.</td>
<td></td>
</tr>
<tr>
<td>Eye protection:</td>
<td></td>
</tr>
<tr>
<td>PPE:</td>
<td>Protective goggles against particle impacts.</td>
</tr>
<tr>
<td>Characteristics:</td>
<td>«CE» marking, category II. Eye protector against dust and smoke.</td>
</tr>
<tr>
<td>CEN standards:</td>
<td>EN 165, EN 166, EN 167, EN 168</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer’s instructions.</td>
</tr>
<tr>
<td>Observations:</td>
<td>Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.</td>
</tr>
<tr>
<td>Skin protection:</td>
<td></td>
</tr>
<tr>
<td>PPE:</td>
<td>Work footwear.</td>
</tr>
<tr>
<td>Characteristics:</td>
<td>«CE» marking, category II.</td>
</tr>
<tr>
<td>CEN standards:</td>
<td>EN ISO 13287, EN 20347</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>This product adapts to the first user’s foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.</td>
</tr>
<tr>
<td>Observations:</td>
<td>Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident</td>
</tr>
</tbody>
</table>

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.**

**9.1 Information on basic physical and chemical properties.**

Appearance: Granulate  
Colour: White  
Odour: Odourless  
Odour threshold: N.A./N.A.  
pH: 8 - 12  
Melting point: 772 ºC  
Boiling Point: >1600 ºC  
Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density: N.A./N.A.
Relative density: 0.75 - 2.15 g/cm³
Solubility: N.A./N.A.
Liposolubility: Alcohol, ácido acético y acetato
Hydrosolubility: 74.5 (g/100g H₂O a 20ºC)
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: No

N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2. Other information.

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.
The product does not present hazards by their reactivity.

10.2 Chemical stability.
Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.
The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.
Avoid any improper handling.

10.5 Incompatible materials.
Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.
No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

IRRITANT PREPARATION. Splatters in the eyes can cause irritation.

11.1 Information on toxicological effects.
Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and reversible damage.

Toxicological information.

<table>
<thead>
<tr>
<th>Name</th>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type</td>
</tr>
<tr>
<td>calcium chloride</td>
<td>Oral</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
 SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

<table>
<thead>
<tr>
<th>Name</th>
<th>Ecotoxicity</th>
<th>Type</th>
<th>Test</th>
<th>Kind</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>calcium chloride</td>
<td>Fish</td>
<td>LC50</td>
<td>Gambusia affinis</td>
<td>13400 mg/L (96 h) [1]</td>
<td></td>
</tr>
<tr>
<td>10043-52-4</td>
<td>Aquatic invertebrates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aquatic plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability.
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.
No information is available regarding the bioaccumulation.

12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.
No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product’s spillage, proceed in accordance with point 6.

14.1 UN number.
Transportation is not dangerous.

14.2 UN proper shipping name.
Transportation is not dangerous.

14.3 Transport hazard class(es).
Transportation is not dangerous.

14.4 Packing group.
Transportation is not dangerous.

14.5 Environmental hazards.
Transportation is not dangerous.

14.6 Special precautions for user.
Transportation is not dangerous.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code.
Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, health and environmental regulations/legislation specific for the substance.
The product is not affected by Directive 2012/18/EU (SEVESO III).
The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.
There has been no evaluation a chemical safety assessment of the product.

SECTION 16: OTHER INFORMATION.

Classification codes:
Eye Irrit. 2 : Eye irritation, Category 2

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Labelling in accordance with Directive 67/548/EEC:

Symbols:

\[\text{Xi}\]
\text{Irritant}

R Phrases:
R36 Irritating to eyes.

S Phrases:
S2 Keep out of the reach of children.
S22 Do not breathe dust.
S24 Avoid contact with skin.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Name</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>10043-52-4</td>
<td>calcium chloride</td>
<td>Registered</td>
</tr>
</tbody>
</table>

Abbreviations and acronyms used:
CEN: European Committee for Standardization.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/


The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.