

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: 121
Product name: **DECALCIFICANTE**

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

Intended use: **DESCALER**

1.3. Details of the supplier of the safety data sheet

Name: **Italchimes s.r.l.**
Full address: **via Bottenigo, 139**
District and Country: **30175 Marghera (VE)**
ITALIA
Phone: **+39 041 932853 (08:00/12:00 - 13:00/17:00)**
Fax: **+39 041 929929**

e-mail address of the competent person

responsible for the Safety Data Sheet: **info@italchimes.it**
Product distribution by: **Italchimes srl - www.italchimes.it**

1.4. Emergency telephone number

For urgent inquiries refer to: **Centro Antiveleni di Firenze 24h/24h - tel. 055 7947819 (CAV Ospedale Careggi - Firenze)**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Skin corrosion, category 1C	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.



Signal words: **Danger**

Hazard statements:

H314 Causes severe skin burns and eye damage.

Precautionary statements:

P102	Keep out of reach of children.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P280	Wear protective gloves / clothing and eye / face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.
P501	Dispose of contents / container in accordance with local regulation.

Ingredients compliant with EC Regulation No. 648/2004: ---.

2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	
SULPHAMIC ACID		
CAS. 5329-14-6	5 - 9	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Chronic 3 H412
EC. 226-218-8		
INDEX. 016-026-00-0		
CITRIC ACID		
CAS. 5949-29-1	5 - 9	Eye Irrit. 2 H319
EC. 201-069-1		
INDEX. -		
Reg. no. 01-2119457026-42		

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

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

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

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

SECTION 7. Handling and storage.**7.1. Precautions for safe handling.**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.**8.1. Control parameters.**

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	colourless
Odour	characteristic
Odour threshold.	Not available.
pH.	1.5 ÷ 2.0
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 60 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	not applicable as the product is liquid
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,064 Kg/l
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	not applicable
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 1999/13/EC) :	0
VOC (volatile carbon) :	0
Stability:	Not less than 6 months under normal conditions.

SECTION 10. Stability and reactivity.

The product has a stability of at least 6 months in normal conditions of storage.

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 in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes abrasions of skin surface, accompanied by rubefaction, warmth and sting. In the most serious cases, small vesicles appear, which cause strong sting and pain. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastrointestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

SULPHAMIC ACID

LD50 (Oral).1450 mg/kg Rat

CITRIC ACID

LD50 (Oral).5400 mg/kg Rat

LD50 (Dermal).> 2000 mg/kg

LD50 (Intraperitoneal)

Tested species: Rat (male)

Value : = 725 mg/kg

LD50 (Citric Acid; Nr. CAS : 5949-29-1)

(Oral)

Tested species: Rat

Value : = 5400 mg/kg

LD50 (Citric Acid ; Nr. CAS : 5949-29-1)

(Dermal)

Tested species: Rat

Value : > 2000 mg/kg

NOAEL (Repeated dosage toxicity) (Citric Acid; Nr. CAS : 5949-29-1)

(Oral)

Tested species: Rat

Value: = 4 g/kg

Test Duration : 10 days

NOAEL (Repeated dosage toxicity) (Citric Acid; Nr. CAS : 5949-29-1)

(Intraperitoneal)

Tested species: Rat

Value: = 250 mg/kg

Test Duration : 10 days

NOAEL (teratogenicity) (Citric Acid; Nr. CAS : 5949-29-1)

(Oral)

Tested species: Rat

Value: > 295 mg/kg

Test Duration : 10 days

Primary Irritability

CITRIC ACID Eye Irritation (OECD 405): irritating (Administered ro rabbit eyes) Skin irritation (OECD 404):Not irritating (Administered to rabbit). May cause skin irritation in susceptible humans.

Sensibilization**CITRIC ACID**

Not skin sensitizing (Guinea pig)

Subacute/chronic toxicity**CITRIC ACID**

Long term studies carried out on rats for a 90 day's period have demonstrated that citric acid or citrates do not cause subacute or chronic toxicity.

Carcinogenic, mutagenic or toxic to reproduction effects**CITRIC ACID**

In vivo testing did not show any mutagenic effects.

The product did not show any carcinogenic or teratogenic effects in animal experiments.

Not toxic to reproduction.

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CITRIC ACID

LC50 Citric Acid
(Nr. CAS:5949-29-1)

Fish
Leuciscus idus melanotus
= 440 mg/l 48 h

LC50
Citric Acid
Nr. CAS : 5949-29-1)

Daphnia
Daphnia magna
= 1535 mg/l 24 h

LC50 Citric Acid
Nr. CAS : 5949-29-1)

Alga
Scenedesmus quadricauda
Value = 425 mg/l
Test duration: 168 h

Specification: LC50
(Citric Acid
Nr. CAS : 5949-29-1)
Benchmark : Bacteria
Pseudomonas putida
Value > 10000 mg/l
Test duration: 16 h

12.2. Persistence and degradability.

SULPHAMIC ACID

Solubility in water. > 10000 mg/l

Biodegradability: Information not available.

CITRIC ACID

Solubility in water. 800000 mg/l a 20°C

Rapidly biodegradable.

12.3. Bioaccumulative potential.

CITRIC ACID

BCF. 3,2

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG,
IATA 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, N.A.S. (SULPHAMIC ACID)

IMDG: CORROSIVE LIQUID, N.O.S. (SULPHAMIC ACID)

IATA: CORROSIVE LIQUID, N.O.S. (SULPHAMIC ACID)

14.3. Transport hazard classes.

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8



14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NONE

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80	Limited Quantity 5 L	Tunnel Restriction Code: (E)
	Special Disposition: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum Quantity: 60L	Packaging instructions: 856
	Pass.:	Maximum Quantity: 5 L	Packaging Instructions: 852
	Special instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product Point. 3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must undergo health checks, carried out according to the directives of Art. 41 of D. Lgs. No. 81 dd. 09 April 2008, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 224/2 directive is respected.

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

CITRIC ACID

SECTION 16. Other information.

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

Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 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
 - ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

Section 2

Section 9