

**TC60300- CALCIUM OXIDE 12%**

# Safety data sheet

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

**1.1. Product identifier**

Code: **TC60300**  
 Product name: **CALCIUM OXIDE 12%**

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

Intended use: **Reagent for laboratory and process control.**

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

Name: **TITOLCHIMICA SPA**  
 Full address: **VIA S.PIETRO MARTIRE 1054**  
 District and Country: **45030 PONTECCHIO POLESINE (RO)**  
**ITALIA**  
 Tel. **+39425492644**  
 Fax **+39425492909**

e-mail address of the competent person

responsible for the Safety Data Sheet: **utecnico@titolchimica.it**

**1.4. Emergency telephone number**

For urgent inquiries refer to: **Poison control center (24/24h): Pavia - 0382/24444; Milano - 02/66101029; Bergamo - 800/83300; Firenze - 055/7947819; Roma - Gemelli 06/3054343; Roma - Umberto I 06/49978000; Roma - Bambino Gesù 06/68593726; Napoli - 081/7472870; Foggia - 0881/732326.**

## 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:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.

**2.2. Label elements**

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

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

<b>H318</b>	Causes serious eye damage.
<b>H315</b>	Causes skin irritation.

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**Precautionary statements:**

**P280** Wear protective gloves / eye protection / face protection.  
**P302+P352** IF ON SKIN: Wash with plenty of water / . . .  
**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 / doctor .

**Contains:** CALCIUM HYDROXIDE

**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. %	Classification 1272/2008 (CLP)
<b>CALCIUM HYDROXIDE</b>		
CAS 1305-62-0	10 - 20	Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335
EC 215-137-3		
INDEX -		
Reg. no. 01-2119475151-45-XXXX		

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 any contact lenses. Wash immediately and abundantly with water for at least 30-60 minutes, opening well eyelids. Consult a physician if the problem persists.

**SKIN:** Remove contaminated clothing. Wash immediately and abundantly with water. If irritation persists consult a doctor. Wash contaminated clothing before re-use.

**INHALATION:** Carry out the subject in the open air. If breathing is difficult, call a physician immediately.

**INGESTION:** Consult a physician immediately. Causes vomiting only upon medical advice. Do not administer anything by mouth if the subject is unconscious and if not authorized by your doctor.

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

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

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

Information not available

**SECTION 5. Firefighting measures**
**5.1. Extinguishing media**

## TC60300- CALCIUM OXIDE 12%

## SUITABLE EXTINGUISHING EQUIPMENT

Choose the most appropriate extinguishing equipment for the specific case.

## UNSUITABLE EXTINGUISHING EQUIPMENT

Avoid using direct water jets to prevent product spillage.

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

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

The product is neither flammable nor combustible. Tuttavia in caso di decomposizione termica si possono sviluppare irritanti.

**5.3. Advice for firefighters**

## 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**For those who do not intervene directly

Alert the personnel responsible for managing these emergencies. Get away from the accident area if you do not have protective equipment listed in Section 8.

For those who intervene directly

Dismantle all staff not adequately equipped to cope with the emergency. Wear suitable protective equipment (including personal protective equipment listed in Section 8 of the Safety Data Sheet) to prevent skin, eye and eye contact.

Block the loss if there is no danger.

Making the area affected by the accident accessible to workers only after reclamation.

**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**

Aspirate the spilled product in a suitable container. Evaluate the compatibility of the container to be used with the product, by checking section 10.

Absorb remaining material with inert absorbent material.

Ensure sufficient ventilation of the site affected by the leak. Check for incompatibilities for container material in Section 7. Disposal of contaminated material must be carried out in accordance with the provisions of item 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. Special end uses.**

Information not available.

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

Regulatory References:

EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC;
	TLV-ACGIH	Directive 91/322/EEC. ACGIH 2016

**CALCIUM HYDROXIDE**
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Note
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	5				
TLV-ACGIH		5				Critical effects: eye irritation, skin and eye irritation of the upper respiratory tract.

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,0049	mg/l
Normal value for the terrestrial compartment	0,108	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation	4 mg/m3	VND	1 mg/m3	VND	4 mg/m3	VND	1 mg/m3	VND

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

Sampling Methods:

 CALCIUM HYDROXIDE: <http://amcaw.ifa.dguv.de/substance/methoden/042-L-Calcium%20hydroxide.pdf>
**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.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

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 a hood visor or protective visor combined with airtight 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

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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	Milky suspension
Colour	Whitish
Odour	characteristic
Odour threshold	Not available
pH	about 12
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	not applicable
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,09 Kg/l
Solubility	Miscible with 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 applicable

**9.2. Other information**

Information not available

**SECTION 10. Stability and reactivity**
**10.1. Reactivity**

The product may react exothermically on contact with strong oxidising or reducing agents, strong acids or bases.

**10.2. Chemical stability**

Excessively high temperatures can cause thermal decomposition.

**10.3. Possibility of hazardous reactions**

See paragraph 10.1.

**10.4. Conditions to avoid**

Avoid overheating.

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**10.5. Incompatible materials**

Oxidising or reducing agents. Strong acids.

**10.6. Hazardous decomposition products**

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

**CALCIUM HYDROXIDE**
Acute toxicity

7340 mg/kg LD50 Rat (oral).

LD50 (dermal). > 2000 mg/kg Rabbit

Skin corrosion/irritation

Based on the information available, the substance is classified as irritant skin.

Serious eye damage/eye irritation

On the basis of available information, the substance is corrosive ocular classificta as.

Respiratory or skin sensitisation

On the basis of available information, the substance is not classified for this hazard class.

Germ cell mutagenicity

On the basis of available information, the substance is not classified for this hazard class.

Carcinogenicity

On the basis of available information, the substance is not classified for this hazard class.

Reproductive toxicity

On the basis of available information, the substance is not classified for this hazard class.

Specific target organ toxicity (STOT)-single exposure

On the basis of available information, the substance is classified as a respiratory irritant.

Specific target organ toxicity (STOT)-repeated exposure

On the basis of available information, the substance is not classified for this hazard class.

Aspiration hazard

On the basis of available information, the substance is not classified

**SECTION 12. Ecological information**
**12.1. Toxicity**
**CALCIUM HYDROXIDE**

LC50 - for Fish	457 mg/l/96h
EC50 - for Crustacea	49,1 mg/l/48h Daphnia Magna
EC50 - for Algae / Aquatic Plants	184,57 mg/l/72h
Chronic NOEC for Crustacea	32 mg/l
Chronic NOEC for Algae / Aquatic Plants	48 mg/l

**12.2. Persistence and degradability**
**CALCIUM HYDROXIDE**

Solubility in water                      mg/l 1000 - 10000

**12.3. Bioaccumulative potential**

Information not available

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**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**

Not applicable

**14.2. UN proper shipping name**

Not applicable

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

Not applicable

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Not applicable

**14.6. Special precautions for user**

Not applicable

**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

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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 not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Product not intended for uses provided for by Dir. 2004/42/CE.

**15.2. Chemical safety assessment**

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

**SECTION 16. Other information**

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

<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>H318</b>	Causes serious eye damage.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.

**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%



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- 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 (EC) 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
  10. Regulation (EU) 2015/1221 (VII 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.

Compared with the previous version (version 3) changes have been made to sections: 2 / 3 / 11 / 12 / 16.