

Calcium oxide**12047-6X1KG**

Version 2.1

Revision Date 05/31/2022

Print Date 05/11/2023

SECTION 1. IDENTIFICATION

Product name : Calcium oxide

Number : 000000020995

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : powder

Color : white

Odor : odourless

Classification of the substance or mixture

Classification of the substance or mixture : Skin irritation, Category 2
Serious eye damage, Category 1
Specific target organ toxicity - single exposure, Category 3,
Respiratory system

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.

Precautionary statements

: **Prevention:**
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ eye protection/ face protection.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/ doctor.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : CaO

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Calcium oxide	1305-78-8	100.00 %

SECTION 4. FIRST AID MEASURES

General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation : If inhaled, remove to fresh air. Call a physician immediately.

Skin contact : After contact with skin, wash immediately with plenty of water. Call a physician immediately.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Remove contact lenses. Call a physician immediately.

Ingestion : Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician immediately.

Notes to physician

Most important symptoms/effects, acute and delayed : No information available.

Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
- Unsuitable extinguishing media : Water
- Specific hazards during firefighting : Do not direct water spray at the point of leakage.
The product itself does not burn.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
No unprotected exposed skin areas.
- Further information : Use extinguishing measures that are appropriate to local
circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Ensure adequate ventilation.
Avoid dust formation.
Do not breathe dust.
Do not get in eyes, on skin, or on clothing.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.
Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).
- Methods and materials for containment and cleaning up : Use mechanical handling equipment.
Protect against water.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

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Precautions for safe handling : Wear personal protective equipment.
Avoid dust formation.
Protect from atmospheric moisture and water.
Use only in well-ventilated areas.
Do not breathe dust.
Do not get in eyes, on skin, or on clothing.

Advice on protection against fire and explosion : Protect against water.
Keep away from combustible material.

Storage

Conditions for safe storage, including any incompatibilities : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Protect from moisture.
Do not store near combustible materials.

Other data : Storage period < 12 month

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Do not breathe dust.
Do not get in eyes, on skin, or on clothing.

Engineering measures : Provide exhaust ventilation if dust is formed.
Dust must be extracted directly at the point of origin.

Eye protection : Safety goggles

Hand protection : Protective gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Protective suit

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Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures : General industrial hygiene practice.
Avoid contact with skin, eyes and clothing.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Calcium oxide	1305-78-8	TWA : Time weighted average	2 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended

Calcium oxide	1305-78-8	REL : Recommended exposure limit (REL):	2 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
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Calcium oxide	1305-78-8	PEL : Permissible exposure limit	5 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
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Calcium oxide	1305-78-8	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : powder

Color : white

Odor : odourless

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Odor threshold	: Note: No data available
pH	: 12.5 at , 20 °C Note: (as aqueous solution)
Melting point/range	: 2,572 °C at 1,013 hPa
Boiling point/boiling range	: 2,850 °C at 1,013 hPa
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: negligible
Vapor density	: Note: No data available
Density	: 3.3 g/cm ³ at 20 °C
Water solubility	: Note: Reacts violently with water.
Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable

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Auto-ignition temperature	: Note: not auto-flammable
Viscosity, dynamic	: Note: Not applicable
Viscosity, kinematic	: Note: Not applicable
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 56.08 g/mol
Bulk density	: ca. 800 kg/m ³

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Exothermic reaction with strong acids. Reacts violently with water.
Conditions to avoid	: Protect from moisture.
Incompatible materials	: Water Carbon dioxide (CO ₂) Reactions with damp air. Possible incompatibility with alkali sensitive materials. Exothermic reaction with strong acids.
Hazardous decomposition products	: Calcium hydroxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: > 2,000 mg/kg
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Species: Rat

Acute inhalation toxicity : Note: No data available

Acute dermal toxicity : Note: No data available

Skin irritation : Species: Rabbit
Result: irritating
Method: OECD Test Guideline 404Eye irritation : Species: human
Classification: Causes burns.
Note: Risk of serious damage to eyes.Sensitisation : Buehler Test
Species: Guinea pig
Result: non-sensitizing
Method: OECD Test Guideline 406**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**Toxicity to fish : LC50: 1,070 mg/l
Exposure time: 96 h
Species: Cyprinus carpio (Carp)Toxicity to daphnia and other aquatic invertebrates : static test
EC50: > 159.6 mg/l
Exposure time: 24 h
Species: Daphnia sp. (Crustacea)

Toxicity to algae : Note: No data available

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Toxicity to bacteria : Note: No data available

Elimination information (persistence and degradability)

Biodegradability : Note: The methods for determining biodegradability are not applicable to inorganic substances.

Further information on ecology

Additional ecological information : Neutralisation will reduce ecotoxic effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION**DOT** Not dangerous goods**TDG** Not dangerous goods

IATA UN/ID No. : UN 1910
Description of the goods : CALCIUM OXIDE
Class : 8
Packaging group : III
Hazard Labels : 8
Packing instruction (cargo aircraft) : 864
Packing instruction (passenger aircraft) : 860
Packing instruction (passenger aircraft) : Y845

IMDG Not dangerous goods**SECTION 15. REGULATORY INFORMATION**

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Inventories

US. Toxic Substances Control Act	: On TSCA Inventory
Australia. Industrial Chemicals Act (AICC), as amended	: On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	: All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	: On the inventory, or in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	: On the inventory, or in compliance with the inventory
Philippines. Inventory of Chemicals and Chemical Substances (PICCS)	: On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances (IECSC)	: On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	: On the inventory, or in compliance with the inventory
Taiwan Chemical Substance Inventory (TCSI)	: On the inventory, or in compliance with the inventory

National regulatory information

SARA 302 Components	: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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SARA 311/312 Hazards : Acute Health Hazard**California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.**Massachusetts RTK** : Calcium oxide 1305-78-8**New Jersey RTK** : Calcium oxide 1305-78-8**Pennsylvania RTK** : Calcium oxide 1305-78-8**SECTION 16. OTHER INFORMATION**

	HMIS III	NFPA
Health hazard	: 3	3
Flammability	: 0	0
Physical Hazard	: 1	
Instability	:	1

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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