

SAFETY DATA SHEET
Australian version - NOHSC:2011 (2003)

IXPER® 60 c

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance/preparation

Product name : IXPER® 60 c
Chemical Name : Calcium peroxide
Synonyms : Calcium bioxide, Calcium dioxide
Molecular formula : CaO₂
Molecular Weight : 72.1 g/mol

1.2. Use of the Substance/Preparation

Recommended use : - Bleaching agents
- cosmetics
- fertiliser
- Food/feedstuff additives
- Odour agents
- Pharmaceuticals
- Vulcanizing agents
- oxidizing agents

1.3. Company/Undertaking Identification

Address : SOLVAY INTEROX Pty Ltd
MCPHERSON STREET, 20-22
AUS- 2019 BANKSMEDOW

Telephone : 61293168000

Telefax : 61293166445

1.4. Emergency telephone number

Telephone : **1 800 023 488 (Emergency 24 Hour)**
+44 1865 407333 [CareChem 24] (Australia, New Zealand)
AU: +61-2-93168000 (Product information)

2. HAZARDS IDENTIFICATION

Appearance : powder
Colour : off-white
Odour : odourless

- Classified as hazardous according to criteria of NOHSC.
- Classified as dangerous goods according to the ADG Code
- irritant effects
- Oxidising



3. COMPOSITION/INFORMATION ON INGREDIENTS

Calcium peroxide

CAS-No.	:	1305-79-9
Symbol(s)	:	O, Xi
R-phrase(s)	:	R 8, R36/37/38
Concentration	:	>= 60.00 %

Calcium dihydroxide

CAS-No.	:	1305-62-0
Symbol(s)	:	Xi
R-phrase(s)	:	R41
Concentration	:	>= 12.00 -<= 26.00 %

Calcium carbonate

CAS-No.	:	471-34-1
Concentration	:	>= 10.00 -<= 24.00 %

4. FIRST AID MEASURES

4.1. Inhalation

- Remove the subject from dusty environment and let him blow his nose.
- If symptoms persist, call a physician.

4.2. Eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).
- Consult with an ophthalmologist immediately in all cases.

4.3. Skin contact

- Wash off with plenty of water.
- Wash contaminated clothing before re-use.
- If symptoms persist, call a physician.

4.4. Ingestion

The following actions are recommended :

- Consult a physician.

If victim is conscious:

- Clean mouth with water and drink afterwards plenty of water.
- Do NOT induce vomiting.

If victim is unconscious but breathing:

- not applicable

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- Large quantities of water, water spray.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Extinguishing media which must not be used for safety reasons

- None.

5.3. Special exposure hazards in a fire

- Oxidizer
- Oxygen released on exothermic decomposition may support combustion in case of surrounding fire.



- Risk of explosion if heated under confinement.
- Contact with flammables may cause fire or explosions.

5.4. Special protective equipment for fire-fighters

- Evacuate personnel to safe areas.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- When intervention in close proximity wear acid resistant over suit.

5.5. Other information

- Keep product and empty container away from heat and sources of ignition.
- Keep containers and surroundings cool with water spray.
- HAZCHEM Code: 1Y

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Refer to protective measures listed in sections 7 and 8.
- Keep away from incompatible products

6.2. Environmental precautions

- Should not be released into the environment.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods for cleaning up

- Pick up and arrange disposal without creating dust.
- All receiving equipment should be clean, vented, dry, labelled and made of material that is compatible with the product.
- Because of the contamination risk, the collected material should be isolated in a safe place.
- Flush with plenty of water.
- Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

7.1. Handling

- Clean and dry piping circuits and equipment before any operations.
- Never return unused material to storage receptacle.
- Keep away from incompatible products
- Containers and equipment used to handle the product should be used exclusively for that product.

7.2. Storage

- Keep in a dry place.
- Keep in a cool, well-ventilated place.
- Keep away from direct sunlight.
- Keep away from heat.
- Keep away from incompatible products
- The container must be used exclusively for the product.

7.3. Specific use(s)

- For further information, please contact: Supplier

7.4. Packaging material

- stainless steel
- Plastic material
- glass

7.5. Other information

- Warn people about the dangers of the product.
- Refer to protective measures listed in sections 7 and 8.



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limit Values

Calcium peroxide

- SAEL (Solvay Acceptable Exposure Limit) 2005
= 3 mg/m³

Calcium dihydroxide

- US. ACGIH Threshold Limit Values 2005
TWA = 5 mg/m³
- TLV (NOHSC) 11/2004
TWA = 5 mg/m³

8.2. Exposure controls

- Ensure adequate ventilation.
- Provide appropriate exhaust ventilation at machinery.
- Apply technical measures to comply with the occupational exposure limits.
- Refer to protective measures listed in sections 7 and 8.

8.2.1. Occupational exposure controls

8.2.1.1. Respiratory protection

- In case of dust clouds/fog/fumes, dust mask type P2.
- Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.

8.2.1.2. Hand protection

- Wear suitable gloves.
- Recommended materials: PVC, neoprene, rubber

8.2.1.3. Eye protection

- Dust proof goggles obligatory.

8.2.1.4. Skin and body protection

- protective suit
- Apron/boots of PVC, neoprene, rubber in case of dusts.

8.2.1.5. Hygiene measures

- Shower and eye wash stations.
- Handle in accordance with good industrial hygiene and safety practice.

8.2.2. Environmental exposure controls

- Dispose of rinse water in accordance with local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information (appearance, odour)

Appearance	:	powder
Colour	:	off-white
Odour	:	odourless

9.2. Important Health Safety and Environmental Information

pH	:	12.3
		Concentration: 10 g/l
		Remarks: saturated aqueous solution



Boiling point/range	: <i>Remarks: Not applicable</i>
Flash point	: <i>Remarks: Not applicable</i>
Flammability (solid, gas)	: <u>Lower explosion limit:</u> <i>Remarks: Not applicable</i>
Explosive properties	: <i>Remarks: no data available</i>
Oxidizing properties	: <i>Remarks: Oxidizer</i>
Relative density / Density	: 2.92
Bulk density	: 800 kg/m ³
Solubility	: water 1.65 g/l <i>Temperature: 20 °C</i> (calcium hydroxide)
	: slightly soluble
	: <i>Remarks: Decomposes in contact with water.</i>
Partition coefficient (n-octanol/water)	: <i>Remarks: Not applicable</i>

9.3. Other data

Melting point/range	: 275 °C <i>Remarks: Decomposition</i>
Decomposition temperature	: > 275 °C

10. STABILITY AND REACTIVITY

10.1. Stability

- Potential for exothermic hazard

10.2. Conditions to avoid

- Heat.
- Exposure to moisture.

10.3. Materials to avoid

- water
- acids
- bases
- heavy metal salts
- reducing agents
- organic materials
- flammable materials

10.4. Hazardous decomposition products

- oxygen
- Hydrogen peroxide



11. TOXICOLOGICAL INFORMATION

11.1 Toxicological data

Acute oral toxicity

- LD50, rat, > 2,000 mg/kg (Powder 50 %)

Acute inhalation toxicity

- LC50, rat, > 5,000 mg/m³ (Powder 35 %)

Acute dermal toxicity

- LD50, rat, > 2,000 mg/kg (Powder 50 %)

Genetic toxicity in vitro

- in vitro, Animal testing did not show any mutagenic effects. (Powder 50 %)

11.2. Health effects

Main effects

- Irritating to mucous membrane and skin; corrosive to eyes.

Inhalation

- Irritating to mucous membranes
- At high concentrations, cough.
- In case of repeated or prolonged exposure: risk of sore throat, nose bleeds.

Eye contact

- Severe eye irritation, watering, redness and swelling of the eyelids.
- Risk of serious or permanent eye lesions.

Skin contact

- In case of prolonged contact: irritation.

Ingestion

- Severe irritation of the mouth, throat, oesophagus and stomach.
- Bloating of stomach, belching.
- Nausea and vomiting.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Fishes, *Cyprinus carpio*, LC50, 48 h, 160 mg/l (Powder 50 %)
- Remarks: 10 mg Ca(OH)₂/l: pH = 9.0; 100 mg Ca(OH)₂/l: pH = 10.6
- Crustaceans, *Daphnia sp.*, EC50, 24 h, 25.6 mg/l (Powder 16 %)

12.2. Mobility

- Remarks: low solubility and mobility

12.3. Persistence and degradability

Abiotic degradation

- Water/soil, complexation/precipitation
Conditions: carbonates/sulfates present at environmental concentrations
Degradation products: carbonates/sulfates sparingly soluble
- water
Result: slow hydrolysis
Degradation products: calcium hydroxide

Biodegradation

- Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

12.4. Bioaccumulative potential

- Result: not applicable (ionizable inorganic compound)



12.5. Other adverse effects

- Study in progress

12.6. Possible hazards (summary)

- Observed effects are related to alkaline properties of the product.
- Nevertheless, hazard for the environment is limited due to product properties:
- Does not bioaccumulate.
- . weak solubility and precipitation as carbonate or sulfate in aquatic environment.
- Diluted product is rapidly neutralized at environmental pH.

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- In accordance with local and national regulations.
- Dispose of product at a landfill authorised for industrial waste.
- Or
- Dissolve carefully in water.
- Neutralize with hydrochloric acid.

13.2. Packaging treatment

- Rinse the empty containers with plenty of water and treat the effluent in the same way as waste.
- The empty and clean containers are to be reused in conformity with regulations.
- Or
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

14. TRANSPORT INFORMATION

UN-No	1457
IATA-DGR	
Class	5.1
Packing group	II
ICAO-Labels	OXIDIZER
Proper shipping name: CALCIUM PEROXIDE	
IMDG	
Class	5.1
Packing group	II
IMO-Labels	oxidizing agents
HI/UN No.	1457
EmS:	F-G, S-Q
Proper shipping name: CALCIUM PEROXIDE	
ADG	
Class	5.1
Packing group	II
ADG-Labels	5.1
HI/UN No.	50/1457
Proper shipping name: CALCIUM PEROXIDE	

Remarks:

- HAZCHEM Code: 1Y



15. REGULATORY INFORMATION

15.1. Label

- Hazardous components which must be listed on the label: Calcium peroxide / Calcium dihydroxide
- Classified as hazardous according to criteria of NOHSC.

Symbol(s)	O Xi	Oxidising Irritant
R-phrase(s)	R 8 R38 R41	Contact with combustible material may cause fire. Irritating to skin. Risk of serious damage to eyes.
S-phrase(s)	S 3 S 8 S17 S24/25 S26 S39	Keep in a cool place. Keep container dry. Keep away from combustible material. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

16. OTHER INFORMATION

16.1. Administrative information

- Australian version
- General revision
- Distribute new edition to clients

16.2. Text of R phrases mentioned in Section 3

- R 8: Contact with combustible material may cause fire.
- R36/37/38: Irritating to eyes, respiratory system and skin.
- R41: Risk of serious damage to eyes.

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.

