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

IXPER® 75C Calcium Peroxide

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

1.1. Identification of the substance or mixture

Product name	:	IXPER® 75C Calcium Peroxide
Chemical Name	:	Calcium peroxide
Synonyms	:	Calcium dioxide, Calcium bioxide
Molecular formula	:	CaO2
Molecular Weight	:	72.1 g/mol

1.2. Use of the Substance/Mixture

Recommended use :

- Bleaching agent
- Oxidizing agents
- Water treatment
- Agriculture industry
- Soil and groundwater remediation
- Oil & gas industry
- Vulcanizing agents
- slow oxygen release

1.3. Company/Undertaking Identification

Address :

Telephone :

Telefax :

1.4. Emergency and contact telephone numbers

Emergency telephone : **1 800 023 488 (Emergency 24 Hour)**
+44 1865 407333 (UK) [CareChem 24]
AU: +61-2-93168000 (Product information)

E-mail address : **sdstracking@solvay.com**

2. HAZARDS IDENTIFICATION

Appearance	:	powder
Colour	:	light yellow
Odour	:	odourless

- Classified as hazardous according to criteria of NOHSC.
- Classified as dangerous goods according to the ADG Code
- Oxidising
- Contact with combustible material may cause fire.
- Irritating to respiratory system and skin.
- Risk of serious damage to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name (CAS-No. / EC-No. / Annex-1)	Concentration (W/W)	Classification	R-phrase(s)
Multi-constituent substance (- / - / -)	**%**		
Calcium peroxide (1305-79-9 / 215-139-4 / -)	**>= 75 - <= 80 %**	O Xi	R 8 R36/37/38
Calcium hydroxide (1305-62-0 / 215-137-3 / -)	**>= 10 - <= 20 %**	Xi Xi	R41 R37/38
Other inorganic Calcium compounds (- / - / -)	**>= 5 - <= 10 %**		

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

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

4.4. Ingestion

- Call a physician immediately.

If victim is conscious:

- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.

If victim is unconscious but breathing:

- Artificial respiration and/or oxygen may be necessary.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Water
- Water spray

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

- None.

5.3. Special exposure hazards in a fire

- Oxidising
- Hazardous decomposition products formed under fire conditions.
- Oxygen
- Sustains combustion

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

5.4. Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Fire fighters must wear fire resistant personnel protective equipment.

5.5. Other information

- Keep product and empty container away from heat and sources of ignition.

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

- Do not add chemical products.
- 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.
- 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.
- Containers and equipment used to handle the product should be used exclusively for that product.
- Keep away from heat and sources of ignition.
- Keep away from Incompatible products.

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.
- Keep in container fitted with safety valve or vent.

7.3. Specific use(s)

- For further information, please contact: Supplier

7.4. Packaging material

- Stainless steel
- Plastic material
- glass

7.5. Other information

- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.
- In industrial installations, apply the rules for the prevention of major accidents (consult an expert).

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limit Values

Calcium peroxide

- SAEL (Solvay Acceptable Exposure Limit) 2007
  TWA = 3 mg/m3

Calcium hydroxide

- ACGIH: US. ACGIH Threshold Limit Values 01 2006
  time weighted average = 5 mg/m3
- Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment) 08 2005
  time weighted average = 5 mg/m3
- Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment) 08 2005
  Remarks: Listed

Other inorganic Calcium compounds

- Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment) 08 2005
  time weighted average = 10 mg/m3
  Remarks: Inspirable dust.
- Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment) 08 2005
  Remarks: Inspirable dust., Listed
- ACGIH: US. ACGIH Threshold Limit Values
  Remarks: none established

8.2. Exposure controls

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

8.2.1. Occupational exposure controls

8.2.1.1. Respiratory protection

- Use only respiratory protection that conforms to international/ national standards.
- Recommended Filter type:
- P2

8.2.1.2. Hand protection

- Wear suitable gloves.

8.2.1.3. Eye protection

- Chemical resistant goggles must be worn.

8.2.1.4. Skin and body protection

- Protective suit

8.2.1.5. Hygiene measures

- Use only in an area equipped with a safety shower.
- Eye wash bottle with pure water
- Handle in accordance with good industrial hygiene and safety practice for diagnostics.

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	:	light yellow
Odour	:	odourless

9.2. Important health safety and environmental information

pH	:	11.7 *Remarks*: saturated aqueous solution *Concentration*: 10 g/l *Temperature*: 20 °C
Boiling point/boiling range	:	*Remarks*: not applicable
Flash point	:	*Remarks*: not applicable
Flammability	:	*Remarks*: The product is not flammable.
Explosive properties	:	*Explosion danger*: *Remarks*: Not explosive
Oxidizing properties	:	*Remarks*: Oxidising
Vapour pressure	:	*Remarks*: not applicable
Relative density / Density	:	2.92
Bulk density	:	450 - 550 kg/m3
Solubility	:	Water 1.65 g/l (calcium hydroxide) *Temperature*: 20 °C
	:	slightly soluble
	:	*Remarks*: Decomposes in contact with water.
Partition coefficient: n-octanol/water	:	*Remarks*: not applicable
Vapour density	:	*Remarks*: not applicable

9.3. Other data

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

10. STABILITY AND REACTIVITY

10.1. Stability

- Stable under recommended storage conditions.

10.2. Conditions to avoid

- 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

11. TOXICOLOGICAL INFORMATION

11.1 Toxicological data

Acute oral toxicity

- LD50, rat, > 2,000 mg/kg

Acute inhalation toxicity

- LC50, rat, > 5,000 mg/m3

Acute dermal toxicity

- LD50, rat, > 2,000 mg/kg

Skin irritation

- rabbit, No skin irritation

Eye irritation

- Risk of serious damage to eyes.

Sensitisation

- guinea pig, Did not cause sensitization on laboratory animals.

Genetic toxicity in vitro

- In vitro tests did not show mutagenic effects

Possible hazards (summary)

- Risk of serious damage to eyes.

11.2. Health effects

Main effects

- Risk of serious damage to eyes.
- Irritating to skin and mucous membranes

Inhalation

- irritation of the upper respiratory tract
- Irritating to mucous membranes
- Repeated or prolonged exposure: Risk of sore throat, nose bleeds.
- (in case of higher concentration): Cough.

Eye contact

- Severe eye irritation
- Lachrymation
- Redness
- Swelling of tissue
- Risk of serious damage to eyes.

Skin contact

- Prolonged skin contact may cause skin irritation.

Ingestion

- Severe irritation
- Irritation of the mouth and throat.
- Symptoms: Nausea, Abdominal pain, Vomiting, Diarrhoea.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Fishes, Cyprinus carpio, LC50, 48 h, 160 mg/l
- Crustaceans, Daphnia sp., EC50, 24 h, 25.6 mg/l

12.2. Mobility

- Air
  Remarks: not applicable
- Water
  Remarks: low solubility and mobility
- Soil/sediments
  Remarks: no data available

12.3. Persistence and degradability

Abiotic degradation

- Air
  Result: not applicable
- Water/soil
  Result: complexation/precipitation of inorganic materials
- Water
  Result: non-significant hydrolysis

Biodegradation

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

12.4. Bioaccumulative potential

- Remarks: not applicable

12.5. Other adverse effects

- no data available

12.6. Possible hazards (summary)

- Hazard for the environment is limited due to product properties:
- Aquatic toxicity is unlikely due to low solubility.
- . weak solubility and precipitation as carbonate or sulfate in aquatic environment.
- Does not bioaccumulate.
- Diluted product is rapidly neutralized at environmental pH.

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- Dilute with plenty of water.
- Dispose of wastes in an approved waste disposal facility.
- Can be landfilled, when in compliance with local regulations.
- In accordance with local and national regulations.

13.2. Packaging treatment

- Clean container with water.
- Empty containers should be taken to an approved waste handling site for recycling or disposal.
- Uncleaned empty packaging
- Dispose of as unused product.
- In accordance with local and national regulations.

14. TRANSPORT INFORMATION

UN-Number	**1457**

IATA-DGR

Class	5.1
Packing group	II
ICAO-Labels	Oxidizer

Proper shipping name: CALCIUM PEROXIDE

IMDG

Class	5.1
Packing group	II
IMDG-Labels	Oxidising agent
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. Labels

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

Symbol(s)	O	Oxidising
	Xi	Irritant
R-phrase(s)	R 8	Contact with combustible material may cause fire.
	R37/38	Irritating to respiratory system and skin.
	R41	Risk of serious damage to eyes.
S-phrase(s)	S 3	Keep in a cool place.
	S 8	Keep container dry.
	S17	Keep away from combustible material.
	S22	Do not breathe dust.
	S24/25	Avoid contact with skin and eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S37/39	Wear suitable gloves and eye/face protection.

15.2. Inventory Information

Toxic Substance Control Act list (TSCA)	: -	In compliance with inventory.
Australian Inventory of Chemical Substances (AICS)	: -	In compliance with inventory.
Canadian Domestic Substances List (DSL)	: -	In compliance with inventory.
Korea Existing Chemicals Inv. (KECI) (KECI (KR))	: -	In compliance with inventory.
EU list of existing chemical substances (EINECS)	: -	In compliance with inventory.
Japan (ENCS) List (ENCS (JP))	: -	In compliance with inventory.
Inventory of Existing Chemical Substances (China) (IECS)	: -	In compliance with inventory.
Philippine Inventory of Chemicals	: -	In compliance with inventory.

and Chemical Substances (PICCS)			
New Zealand Inventory of Chemicals (NZIOC)	:	-	In compliance with inventory.

16. OTHER INFORMATION

16.1. Administrative information

- 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.
- R37/38**:** Irritating to 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.