



SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : SECAR® 80

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

Hydraulic binder for the manufacture of special concretes, mortars and refractory castables

1.3. Details of the supplier of the safety data sheet

Registered company name : KERNEOS INC.

Address : 1316 Priority Lane.VA 23324.Chesapeake.USA.

Telephone : +1 757 284 3200. Fax : +1 757 284 3300.

sds@kerneos.com

www.kerneosinc.com

1.4. Emergency telephone number : +1 800 424 9300.

Association/Organisation : Chemtrec for USA and Canada.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

HCS compliant.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

HCS compliant.

No labelling requirements for this mixture.

2.3. Other hazards

None to your knowlegde

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Cement Alumina Chemicals CAS : 65997-16-2

Classification HCS : not classified

Content : 50 - 70%

Identification	HCS	Nota	%
CAS: 1344-28-1 EC: 215-691-6 REACH: 01-2119529248-35 ALUMINIUM OXIDE		[1]	25 <= x % < 50

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

Other data :

Does not contain any detectable quantities of free lime or free crystalline silica (such as quartz, tridymite or cristobalite)

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In case of exposure to high concentrations of dust : move the affected person away from the contaminated area and into the fresh air

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

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In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.
Wash with soap

In the event of swallowing :

Seek medical attention, showing the label.

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

None, to our knowledge

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

Treat symptomatically

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Non flammable

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming) : do not generate dust.

6.4. Reference to other sections

Sections 7, 8 & 13

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Keep the container tightly closed in a cool, well ventilated place

Keep the container away from dampness

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limits :**

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1344-28-1	10 mg/m ³	-	-	-	-

- Canada / British Columbia (2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1344-28-1	10 mg/m ³	20 mg/m ³	-	-	T

- Canada / Ontario (Control of exposure to biological or chemical agents, regulation 491/2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1344-28-1	10 mg/m ³	-	-	-	T

- Canada / Quebec (Regulations on occupational health and safety) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1344-28-1	10 mg/m ³	-	-	-	T

- France (INRS - ED984 :2012) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
1344-28-1	-	10	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1344-28-1	10 mg/m ³	-	-	-	TI

- USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1344-28-1	5 mg/m ³	-	-	-	R

Particles not otherwise specified/classified

ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) : Respirable particles TWA =3 mg/m³
Inhalable particles TWA=10mg/m³

USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits) : Respirable particles TWA=5mg/m³ Total particles TWA=15mg/m³

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

ALUMINIUM OXIDE (CAS: 1344-28-1)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Inhalation.
Long term local effects.
15.63 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Long term systemic effects.
3.29 mg/kg body weight/day

Predicted no effect concentration (PNEC):

ALUMINIUM OXIDE (CAS: 1344-28-1)

Environmental compartment:
PNEC : Soil.
817.4 mg/kg

Environmental compartment:
PNEC : Fresh water.
0.37 mg/l

Environmental compartment:
PNEC : Sea water.
0.24 mg/l

Environmental compartment:
PNEC : Intermittent waste water.
0.24 mg/l

Environmental compartment:
PNEC : Waste water treatment plant.
2.27 mg/l

8.2. Exposure controls**Personal protection measures, such as personal protective equipment**

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Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149.

Category :

- FFP3

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****General information :**

Physical state :	Powder or dust.
Apparent bulk density (Loose packed) :	700 - 900 kg/m ³
Color:	White / light yellow
Odour:	Odourless

Important health, safety and environmental information

pH (aqueous solution) :	9 - 10 (10%)
pH :	Not stated.
Boiling point/boiling range :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	3.2 - 3.3 g/cm ³
Water solubility :	Partially soluble. <2%
Melting point/melting range :	1750 °C.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

In contact with water, the product reacts chemically and hardens into stable hydrates. This reaction is exothermic and can last for 24h. The total heat released is about 500 kJ/kg

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

Avoid :

- formation of dusts
- humidity

10.5. Incompatible materials

None, to our knowledge

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

No data available.

11.1.1. Substances**Acute toxicity :**

ALUMINIUM OXIDE (CAS: 1344-28-1)

Oral route :

LD50 > 10000 mg/kg

Species : Rat

OECD Guideline 401 (Acute Oral Toxicity)

Skin corrosion/skin irritation :

CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)

- Corrosivity :

No observed effect - Rabbit - OECD 404

Serious damage to eyes/eye irritation :

CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)

- Corneal haze & Iritis :

Average score < 1 - Rabbit - 72h - OECD 405

- Conjunctival redness & Conjunctival oedema :

Average score < 2 - Rabbit - 72h - OECD 405

Specific target organ systemic toxicity - single exposure :

Dust from this product may cause irritation to the respiratory tract.

11.1.2. Mixture**Skin corrosion/skin irritation :**

Non irritant (OCDE 404)

Serious damage to eyes/eye irritation :

Dust may cause slight irritation to the ocular mucous membranes due to the presence of a foreign body.

Non irritant (OCDE 405)

Respiratory or skin sensitisation :

In accordance with the requirements REACH Annex XVII, art. 47, the cement does not contain quantities of soluble hexavalent chromium > 2 ppm, measured according to EN 196-10

Specific target organ systemic toxicity - single exposure :

Dust from this product may cause irritation to the respiratory tract

SECTION 12 : ECOLOGICAL INFORMATION

The product must not be allowed to run into drains or waterways.

12.1. Toxicity**12.1.1. Substances**

CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)

- Fish toxicity :

CL50 > 100 mg/l - NOEC > 100 mg/l

Oncorhynchus mykiss - 96 h - OECD 203

- Crustacean toxicity :

CE50 = 6.6 mg/l - NOEC = 1.8 mg/l

Daphnia magna - 48 h - OECD 202

- Algae toxicity :

CEr50 > 5.6 mg/l - NOEC = 3.2 mg/l

Pseudokirchnerella subcapitata - 72 h - OECD 201

ALUMINIUM OXIDE (CAS: 1344-28-1)

Fish toxicity :

NOEC > 1 mg/l

Species : Salmo trutta

Duration of exposure : 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity :

NOEC > 1 mg/l

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Species : Daphnia magna
Duration of exposure : 48 h

Algae toxicity :
NOEC > 1 mg/l
Species : Pseudokirchnerella subcapitata
Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

After hydration (several hours or several days under humid conditions), the product is stable in soil and in water, with a negligible mobility of its components

12.2.1. Substances

ALUMINIUM OXIDE (CAS: 1344-28-1)
Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Not concerned, the mixture is inorganic

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

The appropriate waste management of the mixture and/or its container must be determined in accordance with local regulations.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

SECTION 15 : REGULATORY INFORMATION

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

The following regulations have been used:

- OSHA Hazard Communication Standard 29 CFR 1910.1200

- Container information:

No data available.

- Particular provisions :

Canada : Domestic Substance list (DLS) : calcium aluminate cement is listed in DSL inventory

Canada WHMIS classification : none

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=0 Instability/Reactivity=0 Specific Risk=none

**- Clean Water Act : Toxic Pollutants (CWA 307A)**

Unlisted.

- Clean Water Act : Hazardous Substances (CWA 311)

Unlisted.

- Clean Water Act : Hazardous Substances (CWA 304b)

Unlisted.

- Clean Water Act : Priority Pollutants (CWA Priority)

Unlisted.

- Clean Air Act : Hazardous Air Pollutants (CAA 112(b) HAP (188))

Unlisted.

- Clean Air Act : Organic Hazardous Air Pollutants National Emission Standards (CAA 112(b) HON (387))

Unlisted.

- Clean Air Act : Protection of Stratospheric Ozone (CAA 602)

Unlisted.

- SARA 110

Unlisted.

- SARA 302/304

Unlisted.

- SARA 313

Unlisted.

- California proposition 65 : Chemicals known to the state to cause cancer or reproductive toxicity

Unlisted.

- Massachusetts : Right to Know

Unlisted.

- New Jersey : Right to Know

Unlisted.

- Pennsylvania : Hazardous Substance

Unlisted.

- Rhode Island : Hazardous substance list

Unlisted.

- TSCA (Toxic Substances Control Act) - USA

Unlisted.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

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ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

HCS : Hazard Communication standard (OSHA).