

CIMENT FONDU®

KERNEOS

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

- 1.1. Product identifier : CIMENT FONDU®
- 1.2. Relevant identified uses of the substance or mixture and uses advised against : Hydraulic binder for concretes and dry-mix mortars manufacturing
- 1.3. Details of the supplier of the safety data sheet
- Name : KERNEOS SA
- Address : 8, Rue des Gravieres
92521 Neuilly-sur Seine Cédex
FRANCE
- Telephone number : +33 1 46 37 90 00
- Telefax number : +33 1 46 37 92 00
- E-mail : sds@kerneos.com
- 1.4. Emergency telephone number : ORFILA (France) : +33 1 45 42 59 59

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

MOST IMPORTANT HAZARDS

- Adverse human health effects** : To our knowledge, no specific risk when handled in accordance with good occupational hygiene and safety practice.
- Environmental effects** : Presents no particular risk to the environment, provided the recommendations concerning disposal (see section 13) and any applicable national or local regulations are complied with.
- Physical and chemical hazards**
- Fire or explosion : No specific hazard under normal conditions of use
- Classification of the product** : According to EC regulations, this product is not classified as a "hazardous mixture". (directive 1999/45/EC and regulation (EC) 1272/2008 (CLP))
This material is not classified as hazardous under OSHA regulations
This material is not classified as hazardous under WHMIS regulations

2.2. Label elements

- Hazard pictograms : None
 - Hazard statements : None
 - Precautionary statements : None
- 2.3. Other hazards : None, to our knowledge

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE

Substance name	Contents	CAS No	EC No	Index No	Classification
Cement, alumina, chemicals	> 99.5 %	65997-16-2	266-045-5	----	Not classified (DSD/DPD) -- Not classified (GHS)

Further information

- : Does not contain any detectable quantities of free lime or free crystalline silica (such as quartz, tridymite or cristobalite)
In accordance with the requirements REACH Annex XVII, art. 47 does not contain quantities of hexavalent chromium > 2 ppm, measured according to EN 196-10

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SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

- Inhalation** : In case of exposure to high concentrations of dust :
Move the affected person away from the contaminated area and into the fresh air If you feel unwell, seek medical advice
- Skin contact** : Wipe off as much as possible
Wash with soap and water
In case of redness or irritation, consult a doctor
- Eye contact** : Rinsing with water whilst keeping the eyelids well open
If irritation persists, consult an eye specialist
- Ingestion** : Rinse mouth out with water
Never attempt to induce vomiting
If you feel unwell, seek medical advice

4.2. Most important symptoms and effects, both acute and delayed : None, to our actual knowledge, in normal use.

4.3. Indication of any immediate medical attention and special treatment needed : None, to our actual knowledge, in normal use.

SECTION 5 FIRE-FIGHTING MEASURES

- 5.1. Extinguishing media** : All extinguishing media can be used.
- 5.2. Special hazards arising from the substance or mixture** : Not combustible. Does not present any particular risk in the event of a fire
- 5.3. Advice for fire-fighters** : Cool down the containers/equipment exposed to heat with a water spray
Contain the extinguishing fluids by bunding
Do not attempt to fight the fire without suitable protective equipment : Suitable breathing apparatus
Complete protective clothing

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures** : For non-emergency personnel :
Avoid contact with skin and eyes
Do not breathe dust.
For emergency responders :
Do not attempt to fight the fire without suitable protective equipment For further information see section 8
- 6.2 Environmental precautions** : Do not discharge into the environment
Do not discharge into drains and rivers
- 6.3. Methods and material for containment and cleaning up**
- Recovery : Sweep up or vacuum up the product
Collect up the product and place it in a spare container suitably labelled Avoid the dispersion of dust
 - Cleaning/decontamination : Wash non-recoverable remainder with large amounts of water
 - Disposal : Dispose of at a licensed waste collection point
- 6.4 Reference to other sections** : For further information see section 13



MATERIAL SAFETY DATA SHEET

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SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

- Technical measures** : Ensure good ventilation of the work station
- Precautions** : Avoid contact with skin and eyes
Do not breathe dust
- Hygiene measures** : Always wash your hands after handling the product
Do not drink, eat or smoke in the workplace

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

- Recommended** : Store :
- the container tightly closed - in a cool, dry area.
- protected from humidity

Packaging materials

- Recommended** : Original packaging

- 7.3. Specific end use(s)** : No information available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters Occupational exposure limits

- France** : Dust without specific effect :
Total dust - VME : 10 mg/m³ Inhalable dust
- VME : 5 mg/m³
- Germany** : Dust without specific effect :
Inhalable dust : MAK : 3 mg/m³ Respirable dust : MAK : 10 mg/m³
- USA (ACGIH)** : Respirable dust : TLV : 3 mg/m³
Inhalable dust : TLV : 10 mg/m³

8.2. Exposure controls

- Engineering measures** : Ensure good ventilation of the work station
Extraction to remove dust at its source

Personal protective equipment

- Respiratory protection** : In the event of insufficient ventilation :
Suitable anti-dust mask
- Hand protection** : Impermeable protective gloves
The protective gloves to be used must comply with the specifications of EC directive 89/686/ EEC and the resultant standard EN 374
Breakthrough time : refer to the recommendations of the gloves supplier
- Eye protection** : Safety goggles
- Skin and body protection** : Protective clothing

CIMENT FONDU®**KERNEOS****SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

Physical state	: Fine powder
Colour	: grey brown
Odour	: odourless
Odour threshold	: Not applicable
pH	: 11 - 11.5 (Aqueous dispersion - 10 %)
Specific temperatures	
- Boiling	: Not applicable
- Melting point	: ~ 1300 °C
Decomposition temperature	: Not determined
Flammability characteristics	
- Flash point	: Not applicable
- Auto-ignition temperature	: Not applicable
Flammability (solid, gas)	: The product is not flammable
Oxidizing properties	: Non oxidizing material according to EC criteria
Explosive limits in air	: Not applicable
Vapour pressure	: Not applicable
Vapour density (air = 1)	: Not applicable
Bulk density	: 1100 - 1300 kg/m ³
Density :	: 3200 - 3300 kg/m ³
Solubility	
- in water	: < 2 %
Octanol/water partition coefficient	: Not applicable (inorganic substance)
Kinematic viscosity	: Not applicable
Evaporation rate	: Not applicable
Explosive properties	: Not explosive
9.2 Other information	: No additional information 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	: Stable at ambient temperature and under normal conditions of use
10.3. Possibility of hazardous reactions	: None under normal conditions.
10.4. Conditions to avoid	: Water, humidity
10.5. Incompatible materials	: None, to our knowledge
10.6. Hazardous decomposition products	: None, to our knowledge

CIMENT FONDU®**KERNEOS****SECTION 11 TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

Acute toxicity	: Based on available data, the classification criteria are not met.
Skin corrosion/irritation	: Not irritating (OECD 404)
Serious eye damage/irritation	: Not irritating (OECD 405) Dust may cause slight irritation to the ocular mucous membranes due to the presence of a foreign body.
Respiratory or skin sensitization	: Based on available data, the classification criteria are not met. In accordance with the requirements REACH Annex XVII, art. 47 does not contain quantities of hexavalent chromium > 2 ppm, measured according to EN 196-10
Carcinogenicity	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
STOT - single exposure	: Dust from this product may cause irritation to the respiratory tract.
STOT - repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Not applicable

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity	: LC 50 (Fish : <i>Onchorhynchus mykiss</i>) / 96h : > 100 mg/l (OECD 203) EC 50 (<i>Daphnia</i> : <i>Daphnia magna</i>) / 48h : 6.6 mg/l (OECD 202) EC 50 (algae : <i>Pseudokirchneriella subcapitata</i>) / 72h : > 5.6 mg/l (OECD 202) (results based on a similar formulation) By read across with soluble aluminium salts, it is reasonably assumed that the calculated NOEC for the substance is greater than 1 mg/l
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
12.3. Bioaccumulative potential	: Available data on aluminium show that aluminium does not bioaccumulate
12.4. Mobility in soil	: No information available
12.5. Results of PBT and vPvB assessment	: Based on available data, the classification criteria are not met.
12.6. Other adverse effects	: No information available

SECTION 13 DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods****WASTE FROM PRODUCT****Destruction/Disposal** : Dispose of in accordance with relevant local regulations**CONTAMINATED PACKAGING****Destruction/disposal** : Recycle following cleaning or dispose of at an authorised site**NOTE**

: The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal

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SECTION 14 TRANSPORT INFORMATION

- 14.1. UN number : Not restricted
14.2. UN proper shipping name : Not restricted
14.3. Transport hazard class(es) : Not restricted
14.5. Environmental hazards : Not restricted
14.6. Special precautions for user : No information available
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : No information available

NOTE : The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, in case the date of issue is older than 12 months, compared to the current one, it would be advisable to check their validity with your commercial agency

SECTION 15 REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Germany : : Water hazard class (WGK) : 1
Storage class (Germany) : 13 (according to The German chemical association VCI)

USA

US Toxic Substances Control Act - TSCA : : Calcium aluminate cement is listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

SARA - USA : : SARA section 311/312 categorizations : none

CERCLA Hazardous Substance (40CFR Part 302) : None

Canada

Domestic Substance List (DSL) : Calcium aluminate cement is registered in the DSL (Canada) inventory

WHIMS Classification : : None

15.2. Chemical Safety Assessment : Not realized

SECTION 16 OTHER INFORMATION

Further information : This sheet has been written in conformity with the REACH regulation, in accordance with the requirements of EC Regulation 453/2010

NFPA Hazard Rating : - Reactivity : 0
- Flammability : 0
- Health : 0
- Special : 0

Safety data sheet established by : KERNEOS

This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith. Besides, the attention of the user is drawn to the possible risk incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. The user alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfill his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.