SAFETY DATA SHEET
(REACH regulation (EC) n°1907/2006 - n°453/2010)

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

1.1. Product identifier
Product name : CIMENT FONDU®
Product code : K00CF.

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
Registered company name : KERNEOS SA.
Telephone : +33 1 46 37 90 00.     Fax : +33 1 46 37 92 00.
sds@kerneos.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
In compliance with EC regulation No. 1272/2008 and its amendments.
This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
This substance does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).
This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
This substance does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).
This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements
In compliance with EC regulation No. 1272/2008 and its amendments.
No labelling requirements for this substance.

No labelling requirements for this substance.

2.3. Other hazards
The substance does not satisfy the PBT or vPvP criteria in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances
Composition :

<table>
<thead>
<tr>
<th>Identification</th>
<th>(EC) 1272/2008</th>
<th>67/548/EEC</th>
<th>Note</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 65997-16-2</td>
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<tr>
<td>EC: 266-045-5</td>
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<tr>
<td>REACH: Exempt</td>
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<tr>
<td>CEMENT, ALUMINA, CHEMICALS</td>
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<td>100%</td>
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</tbody>
</table>

Other data :
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
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 soft, clean water for 15 minutes holding the eyelids open. If there is any redness, pain or visual impairment, consult an ophthalmologist.

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
No data available.

4.3. Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media
Non flammable

5.2. Special hazards arising from the substance or mixture
Do not breathe in smoke.

5.3. Advice for firefighters
No data available.

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 fire-fighters
Fire-fighters 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
No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the substance 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 substance is used.

7.2. Conditions for safe storage, including any incompatibilities
No data available.

Storage
Store in a cool and dry area.

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:

- Particles not otherwise specified/classified
  - UK / WEL (Workplace exposure limits, EH40/2005, 2007): Total Dust TWA=10mg/m³  Respirable dust TWA=4mg/m³
  - USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits): Respirable fraction TWA=5mg/m³  Total fraction TWA=15mg/m³
  - ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010): Respirable particules TWA =3 mg/m³ Inhalable particules TWA=10mg/m³

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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

- 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.

- 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.

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): 1100 - 1300 kg/m³
- Color: Grey / brown
- Odour: Odourless

Important health, safety and environmental information

- pH (aqueous solution): 11 - 11.5 (20°C - 10%)
- pH: Not relevant.
- Boiling point/boiling range: Not relevant.
- Flash point interval: Not relevant.
- Vapour pressure (50°C): Not relevant.
- Density: 3.2 - 3.3
- Water solubility: Partially soluble. <2%
- Melting point/melting range: 1300 °C.
- Self-ignition temperature: Not relevant.
- Decomposition point/decomposition range: Not relevant.

9.2. Other information

No data available.
SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity
In the presence of water, calcium aluminates react chemically and harden to form stable calcium aluminate hydrates. This reaction is endo-thermal and may last up to 24 hours. The total heat released is < 500 kJ/kg.

10.2. Chemical stability
This substance 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
None, to our knowledge

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
No data available.

11.1.1. Substances
Acute toxicity:

CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)
Oral route: LD50 > 2000 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.
Species: Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation:
Dust may cause slight irritation to the ocular mucous membranes due to the presence of a foreign body.

CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)
Corneal haze:
Average score < 1
Species: Rabbit
Duration of exposure: 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

No observed effect.
Iritis:
Average score < 1
Species: Rabbit
Duration of exposure: 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival redness:
Average score < 2
Species: Rabbit
Duration of exposure: 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival oedema:
Average score < 2
Species: Rabbit
Duration of exposure: 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation:
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
Specific target organ systemic toxicity - single exposure:
Dust from this product may cause irritation to the respiratory tract.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances
Fish toxicity:
- LC50 > 100 mg/l
- Species: Oncorhynchus mykiss
- Duration of exposure: 96 h
- OECD Guideline 203 (Fish, Acute Toxicity Test)

- NOEC > 100 mg/l
- Species: Oncorhynchus mykiss
- Duration of exposure: 96 h
- OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity:
- EC50 = 6.6 mg/l
- Species: Daphnia magna
- Duration of exposure: 48 h
- OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

- NOEC = 1.8 mg/l
- Species: Daphnia magna
- Duration of exposure: 48 h
- OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity:
- EC50 > 5.6 mg/l
- Species: Pseudokirchnerella subcapitata
- Duration of exposure: 72 h
- OECD Guideline 201 (Alga, Growth Inhibition Test)

- NOEC = 3.2 mg/l
- Species: Pseudokirchnerella subcapitata
- Duration of exposure: 72 h
- OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

12.2.1. Substances
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
No data available.

12.6. Other adverse effects
No data available.

German regulations concerning the classification of hazards for water (WGK):
WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC.

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.

SECTION 15 : REGULATORY INFORMATION
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Classification and labelling information included in section 2:
The following regulations have been used:
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 618/2012
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- Container information:
No data available.
- Particular provisions:
USA : CERCLA Hazardous substance (40CFR Part 302) : all substances are not listed in the CERCLA list
USA State of California : All substances are not listed in the Proposition 65 list
US Toxic Substances Control Act TSCA : All substances are listed in the EPA (Environment Protection Agency) TSCA inventory
USA SARA section 311/312 categorizations : None
Canada : Domestic Substance List (DSL) : all substances are registred in the DSL inventory
WHMIS : none
- German regulations concerning the classification of hazards for water (WGK):
WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.
- 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

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.
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 substance and not as a guarantee of the properties thereof.

Abbreviations:
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.
WGK : Wassergefahrdungsklasse (Water Hazard Class).