

TERNAL® FONDU



SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : TERNAL® 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

Registered company name : IMERYS ALUMINATES SAS.

Address : 43 quai de Grenelle.75015.Paris.FRANCE.

Telephone : +33 1 46 37 90 00. Fax : +33 1 46 37 92 00.

productsteward.aluminates@imerys.com

www.imerys.com

Registered company name : IMERYS ALUMINATES LIMITED

Address : Dolphin Way - Purfleet - Essex RM19 1NZ - UNITED KINGDOM

Telephone : +44 1708 863333 Fax : +44 1708 861033

productsteward.aluminates@imerys.com

1.4. Emergency telephone number : +1 703 741 5970.

Association/Organisation : CHEMTREC international.

Other emergency numbers

CHEMTREC United Kingdom: +44 20 3807 3798 -- CHEMTREC Ireland: +353 1 901 4670 -- CHEMTREC South Africa: 080 098 3611 -- CHEMTREC India: 000 800 1007 141 --- Chemtrec Australia : 1800 862 115

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.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

No labelling requirements for this substance.

2.3. Other hazards

The substance does not fulfil 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 :

Identification	(EC) 1272/2008	Note	%
CAS: 65997-16-2 EC: 266-045-5 REACH: Exempt CEMENT, ALUMINA, CHEMICALS			100%

Other data :

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

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.

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

The acute symptoms would give pain in the eyes because of dust entry. No delayed effects are anticipated if first aid treatment is applied and is effective.

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

No need for immediate medical attention. Follow the advice given in section 4.1.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Non flammable

Suitable methods of extinction

No specific extinguishing media is needed.

Unsuitable methods of extinction

No restriction on the extinguishing media to be used.

5.2. Special hazards arising from the substance or mixture

None. The material is not flammable and it does not lead to hazardous thermal decomposition products.

5.3. Advice for firefighters

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

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 non first aid worker

Avoid generation of airborne dust.

Ensure adequate ventilation.

Avoid contact with skin, eyes and personal clothing. Wear suitable protective equipment (see section 8).

For first aid worker

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

Avoid generation of airborne dust.

Ensure adequate ventilation.

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 substance is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Avoid the generation of airborne dust.

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

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

Keep the container away from dampness

Storage

Keep out of reach of children.

Packaging

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

7.3. Specific end use(s)

If you require advice on specific uses, please contact your supplier.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

Maintain personal exposure below occupational exposure limits for dust (inhalable and respirable) as dictated in the national legislation.

UK / WEL (Workplace exposure limits, EH40/2005, 2007) : Inhalable dust 8-hour TWA=10mg/m³ Respirable dust 8-hour TWA=4mg/m³

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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.

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- 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 inhaling dust.

In case of prolonged exposure to airborne dust concentrations wear a respiratory protective equipment that complies with the requirements of European and national legislation. The use of a suitable particle filter mask type FFP1, FFP2 or FFP3 is recommended.

See EN 143:2000 (Respiratory Protective devices -- Particle filters) and EN149:2001 (Respiratory protective devices -- Filtering half masks to protect against particles).

- Thermal risks

The substance does not represent a thermal hazard, thus special consideration is not required.

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

Physical state : Powder or dust.

Colour

Colour: Grey / brown

Odour

Odour threshold : Not stated.

Melting point

Melting point/melting range : 1300 °C.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash point interval : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not specified.

Decomposition temperature

Decomposition point/decomposition range : Not specified.

pH

pH (aqueous solution) : 11 - 11.5 (20°C - 10%)

pH : Not stated.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Partially soluble. <2%

Fat solubility : Not stated.

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Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Not relevant.

Density and/or relative density

Density : 3.2 - 3.3

Relative vapour density

Vapour density : Not stated.

Particle characteristicsApparent bulk density (Loose packed) : 1100 - 1300 kg/m³**9.2. Other information**

No data available.

9.2.1. Information with regard to physical hazard classes

The product does not present a physical hazard.

9.2.2. Other safety characteristics

No applicable data.

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 exo-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 hazard classes as defined in Regulation (EC) No 1272/2008****11.1.1. Substances****Acute toxicity :**

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

Oral route :

LD50 >= 2000 mg/kg

Species : Rat

OECD Guideline 423 (Acute Oral toxicity Acute Toxic Class Method)

Skin corrosion/skin irritation :

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

Species : Rabbit

OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation :

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 :

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

Local lymph node stimulation test :

Non-Sensitiser.

Species : Guinea pig

OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

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

No mutagenic effect.

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) :

Negative.

With or without metabolic activation.

Species : S. typhimurium TA102

Carcinogenicity :

Based on available data, the classification criteria are not met.

Reproductive toxicant :

Based on available data, the classification criteria are not met.

Specific target organ systemic toxicity - single exposure :

Based on available data, the classification criteria are not met.

Specific target organ systemic toxicity - repeated exposure :

Based on available data, the classification criteria are not met.

Aspiration hazard :

No data available.

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

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

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 : ECr50 > 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

After hydratation (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

Not relevant because cement is inorganic.

12.4. Mobility in soil

Not relevant because cement is inorganic.

12.5. Results of PBT and vPvB assessment

The substance does not satisfy the PBT or vPvB criteria in accordance with Annex XIII of the REACH regulation (EC) 1907/2006.

12.6. Endocrine disrupting properties

Not relevant

12.7. Other adverse effects

No other adverse effects are identified.

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.

Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

17 01 01 concrete

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

Not relevant

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14.2. UN proper shipping name

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Not relevant

14.3. Transport hazard class(es)

ADR : not classified

IMDG : not classified

ICAO/IATA : not classified

RID : not classified

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14.4. Packing group

Not applicable.

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14.5. Environmental hazards

Not relevant

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14.6. Special precautions for user

No relevant

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14.7. Maritime transport in bulk according to IMO instruments

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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:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

- Container information:

Substance not restricted under Annex XVII of Regulation (EC) no. 1907/2006 (REACH):
<https://echa.europa.eu/substances-restricted-under-reach>.

- Particular provisions :

No data available.

15.2. Chemical safety assessment

Cement, Alumina, Chemicals is exempted from REACH registration in accordance with Annex V.10 of Regulation (EC) 1907/2006. Thus, no formal chemical safety assessment has been carried out for this substance by the supplier.

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 :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

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 : Wassergefährdungsklasse (Water Hazard Class).

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.