

TERNAL® WHITE



SAFETY DATA SHEET

(According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product name: TERNAL® WHITE

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 INC

Address: 1316 Priority Lane, Chesapeake, VA 23324 – United States of America

Telephone: + 1 757 284 32 00. Fax: + 1 757 284 33 00

sds@kerneos.com

1.4. Emergency telephone number: +1 800 222 1222

American Association of Poison Control Centers, 515 King Street, Suite 510 VA 22314 Alexandria

SECTION 2 : HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****In compliance with GHS US regulation**

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 GHS US**

No labelling requirements for this substance.

2.3. Other hazards

No additional information available

2.3. Unknown acute toxicity (GHS-US)

No additional information available

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixture****Composition :**

Identification	GHS US - Classification	%
CAS: 65997-16-2 EC: 266-045-5 CEMENT, ALUMINA, CHEMICALS	Not classified	>99.5%

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 vomiting 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.

TERNAL® WHITE

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:

Never attempts to induce vomiting.

Seek medical attention, showing the label.

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

No additional data available.

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.

All extinguishing agents can be used.

5.2. Special hazards arising from the substance or mixture

Not combustible. Presents no particular fire or explosion hazard.

Do not breathe in smoke.

5.3. Advice for firefighters

Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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 and 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

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust.

Always wash hands after handling.

Fire prevention:

Prevent access by unauthorized 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

Storage

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

TERNAL® WHITE

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

Particles not otherwise specified/classified

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

Total fraction TWA=10 mg/m³

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

Inhalable particles 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) :



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.

- 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) :	900 - 1200 kg/m ³
Color:	White
Odour:	Odourless

Important health, safety and environmental information

pH (aqueous solution) :	10.5 - 11. (20°C - 10%)
pH :	Not relevant.
Boiling point/boiling range:	Not relevant.
Flash point interval:	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density:	2.9 - 3.0
Water solubility:	Partially soluble. <2%
Melting point/melting range:	1680 °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 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 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.

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Corneal haze :

Average score < 1

Species : Rabbit

Duration of exposure : 72 h

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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 sensitization:

Not classified

Germ cell mutagenicity:

Not classified

Carcinogenicity:

Not classified

Reproductive toxicity:

Not classified

TERNAL® WHITE

Specific target organ toxicity - single exposure:

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

Specific target organ toxicity (repeated exposure) :

Not classified

Aspiration hazard:

Not classified

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 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. Bio accumulative potential

Not applicable

12.4. Mobility in soil

Not applicable

12.5. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS**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.

TERNAL® WHITE

SECTION 14 : TRANSPORT INFORMATION

In accordance with Department of Transportation:
Not regulated for transport

Additional information

Other information No supplementary information available.

ADR:

No additional information available

Transport by sea:

No additional information available

Air transport:

No additional information available

SECTION 15 : REGULATORY INFORMATION**15.1. US Federal regulations**

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

Not subject to reporting requirements of the United States SARA Section 313

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

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

Canada:

Listed on the Canadian DSL (Domestic Substances List)

WHMIS regulation: none

EU-regulation:

Listed, on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation EC No. 1272/2008:

Not classified

National regulations:

Listed in the EPA (Environment Protection Agency)

Not listed on Right to Know (RTK) lists

Standardized 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

**15.3. US State regulations**

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

U.S. – California – Proposition 65 – Other information: unlisted

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.