



# 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 : TERNAL® NT 203

### 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.

Address : 11 cours Valmy - Immeuble Pacific - CS 20058.92977.Paris La Défence CEDEX.FRANCE.

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.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

## SECTION 2 : HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

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

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Eye irritation, Category 2 (Eye Irrit. 2, H319).

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 an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

#### In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Skin irritation (Xi, R 38).

Eye irritation (Xi, R 36).

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 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.

Hazard pictograms :



GHS07

Signal Word :

WARNING

Hazard statements :

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements - Prevention :

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response :

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

In use, may form flammable/explosive dust-air mixture.

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq$  0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

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

Identification	(EC) 1272/2008	67/548/EEC	Note	%
CAS: 7778-18-9 EC: 231-900-3  CALCIUM SULFATE	GHS07 Wng Skin Irrit. 2, H315 Eye Irrit. 2, H319	Xi Xi;R36/38	[1]	10 <= x % < 25
INDEX: 011-005-00-2 CAS: 497-19-8 EC: 207-838-8  SODIUM CARBONATE	GHS07 Wng Eye Irrit. 2, H319	Xi Xi;R36		2.5 <= x % < 10

**Information on ingredients :**

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

CAS: SPECIAL 232 PARTICULATES NOT OTHERWISE CLASSIFIED

**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 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 :**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

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

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

**In the event of swallowing :**

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, showing the label.

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

Irritation to skin and eyes

**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**

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 (CO<sub>2</sub>)
- sulphur dioxide (SO<sub>2</sub>)

**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 non first aid worker**

Avoid any contact with the skin and eyes.

**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**

No data available.

**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.

Remove and wash contaminated clothing before re-using.

**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.

Avoid skin and eye contact with this mixture.

**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**

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 :**

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

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7778-18-9	10 mg/m <sup>3</sup>	-	-	-	I

- Canada / Alberta (Occupational health and safety code, 2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
SPECIAL 232	3 mg/m <sup>3</sup>	-	-	-	R
7778-18-9	10 mg/m <sup>3</sup>	-	-	-	-

- Canada / British Columbia (2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7778-18-9	10 mg/m <sup>3</sup>	-	-	-	I

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

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
SPECIAL 232	10 mg/m <sup>3</sup>	-	-	-	T
7778-18-9	5 mg/m <sup>3</sup>	-	-	-	R

- USA / NIOSH REL (National Institute for Occupational Safety and Health, Recommended exposure limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7778-18-9	10 mg/m <sup>3</sup>	-	-	-	T

## TERNAL® NT 203

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

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
SPECIAL 232	15 mg/m3	-	-	-	T
7778-18-9	15 mg/m3	-	-	-	T

- France (INRS - ED984 :2008) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
7778-18-9	-	10	-	-	-	-

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS	VME :	VME :	Excess	Notes
7778-18-9	-	6 mg/m3 A	-	DFG

## 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.

Prescription glasses are not considered as protection.

Provide eyewash stations in facilities where the product is handled constantly.

#### - Hand protection

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

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Recommended properties :

- Impervious gloves in accordance with standard EN374

#### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

These clothes shall be chosen to ensure there is no inflammation or irritation of the skin at the neck and wrist by contact with the powder

Suitable type of protective clothing :

Wear protective clothing against solid chemicals and particles suspended in the air (type 5) in accordance with standard EN13982-1 to prevent skin contact.

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.
Odour:	Odourless
Color:	Dark Brown

#### Important health, safety and environmental information

pH :	11.00 . Slightly basic.
Boiling point/boiling range :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	3 - 3.3 kg/m3
Water solubility :	Partially soluble. <2%
Melting point/melting range :	1360 °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 mixture is stable under the recommended handling and storage conditions in section 7.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

Avoid :

- formation of dusts
- humidity

Dusts can form an explosive mixture with air.

### 10.5. Incompatible materials

Keep away from :

- strong acids

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- sulphur dioxide (SO<sub>2</sub>)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

#### 11.1.1. Substances

No toxicological data available for the substances.

#### 11.1.2. Mixture

#### Skin corrosion/skin irritation :

Irritating to skin

#### Serious damage to eyes/eye irritation :

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

Irritating to eyes

#### Carcinogenicity :

This product does not contain any ingredient designated by IARC, NTP or OSHA as probable or suspected human carcinogen

#### 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

CALCIUM SULFATE (CAS: 7778-18-9)

Fish toxicity :

LC50 > 79 mg/l  
Species : *Oryzias latipes*  
Duration of exposure : 96 h

Crustacean toxicity :

EC50 > 79 mg/l  
Species : *Daphnia magna*  
Duration of exposure : 48 h

Algae toxicity :

ECr50 > 79 mg/l  
Species : *Selenastrum capricornutum*

## TERNAL® NT 203

Duration of exposure : 72 h

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability****12.2.1. Substances**

CALCIUM SULFATE (CAS: 7778-18-9)

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.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture 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.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2013 - IMDG 2012 - ICAO/IATA 2013).

**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 67/548/EEC and its adaptations
- 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 :**

US Toxic Substances Control Act TSCA : All substances are listed in the EPA (Environment Protection Agency) TSCA inventory

USA : CERCLA Hazardous substance (40CFR Part 302) : all substances are not listed in the CERCLA list

State of California : This product may contain as impurities one or more chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. In the absence of definitive testing to prove that the defined risks do not exist, proposition 65 list : Standard 1910.1026 from the OSHA may apply

USA SARA section 311/312 categorizations : none

Canada WHIMS Classification : : D2B (material skin or eye irritant) and E (corrosive material : corrodes aluminium surfaces)

Canada : Domestic or Non-Domestic Substance List (DSL or NDSL) : all substances are registered in the DSL or NDSL inventory

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

NFPA 704, Labelling: Health=1 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.

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.

Manufacture plant : Kerneos Inc. - 1316 Priority Lane - Chesapeake - VA 23324 - Virginia - USA

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.**

Hazard symbols :



Irritant

Risk phrase :

R 36/38 Irritating to eyes and skin.

Safety phrase :

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 16 Keep away from sources of ignition - No smoking.

S 36/37 Wear suitable protective clothing and gloves.

**Title for H, EUH and R indications mentioned in section 3 :**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

R 36 Irritating to eyes.

R 36/38 Irritating to eyes and skin.

**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 : Wassergefährdungsklasse (Water Hazard Class).

GHS07 : Exclamation mark