

# PYROGEL XTE

Directive 2012/18/EU

## 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

### 1.1 Product identifier: Pyrogel XTE

This product is an article and this is information, provided as a courtesy in response to customer requests. The product is classified as an article. Articles are not subject to this geography's hazard communication regulations. As generally defined: "Article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product.

### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

No further relevant information available

Application of the substance / the mixture: High performance insulation material

### 1.3 Details of the Supplier of the Substance or Mixture

#### Manufacturer

**INSULCON B.V.**

The Netherlands

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Germany

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## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

#### Additional information:

This Safety Data Sheet (SDS) is provided as a courtesy in response to customer requests. The product is classified as an article according to local regulations. Articles are not subject to this geography's hazard communication regulations.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 None

Hazard pictograms None

Signal word None

Hazard statements None

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions

Dangerous components:		
	Fibrous glass, textile grade substance with a Community workplace exposure limit	>50.0%
CAS: 7631-86-9 EINECS: 231-545-4	amorphous silicon dioxide, chemically prepared substance with a Community workplace exposure limit	10.0-30.0%
CAS: 1309-37-1 EINECS: 215-168-2	iron oxide substance with a Community workplace exposure limit	1.0-5.0%
CAS: 21645-51-2 EINECS: 244-492-7	aluminium hydroxide substance with a Community workplace exposure limit	1.0-5.0%

#### Additional information:

Non-hazardous components are listed above due to the existence of country-specific occupational exposure level (OEL) values (see Section 8) or are being voluntarily disclosed. The exact percentage concentration of composition has been withheld as a trade secret or is disclosed as a range due to batch variation. For the wording of the listed hazard phrases refer to section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

General information: No special measures required.  
 After inhalation: Supply fresh air.  
 After skin contact: Wash with plenty of soap and water. If skin irritation continues, consult a doctor.  
 After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.  
 After swallowing: If symptoms persist consult doctor.

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

Dust may cause mechanical eye, skin, or respiratory irritation. Silica aerogels are hydrophobic (repel water) and may cause temporary drying and irritation of the skin, eyes, and mucous membranes.

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

No further relevant information available.

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

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## 5.2 Special hazards arising from the substance or mixture:

Product is a super-insulator. Rolls of material will retain heat within internal layers that may be a source of ignition after the fire is extinguished. Keep hot material away from combustible materials and cool hot insulation with water.

## 5.3 Advice for firefighters

Protective equipment: Normal firefighting procedures should be followed to avoid inhalation of smoke and gases produced by a fire.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear

Use personal protective equipment as required.

Ensure adequate ventilation.

Avoid formation of dust.

### 6.2 Environmental precautions:

No special measures required.

### 6.3 Methods and material for containment and cleaning up:

Collect using methods that avoid the generation of dust (pick up or vacuum dust) and place in appropriate container for disposal.

### 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

Prevent formation of dust.

Avoid dust contact with eyes, skin, and clothing. Avoid breathing dust.

Aerogel blankets may generate dust when handled. Because aerogel dust is hydrophobic, water is not an effective dust control agent. Local exhaust should be the primary dust control method. Dry vacuuming is the preferred method for cleaning up dust. This will help to minimize the area where exposure may occur. Trimmed material may be reused in secondary applications and should be promptly packed in resealable bags. Scrap material should be packed for disposal.

Wash hands with soap and water after handling.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about fire - and explosion protection: No special measures required.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage:

Requirements to be met by storerooms and receptacles:

Keep packaging tightly sealed until ready for use.

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**Information about storage in one common storage facility:**

Not required.

**Further information about storage conditions:**

Store in dry conditions.

**7.3 Specific end use(s)**

Additional information about installation and startup of industrial insulation systems (temperature >200 °C):

Thermal decomposition of trace components in the insulation is normal during installation of fibrous insulation materials onto hot equipment operating at temperatures above 200 °C and during startup. This is temporary and may generate fumes with objectionable odors. Ventilate the area well and keep a distance from the heated equipment. In enclosed and confined spaces, use a supplied air respirator. Respirator selection must be made by qualified person.

See Section 10 for additional information.

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

**8.1 Control parameters**

Additional information about design of technical facilities:

Technical measures and the application of adequate working methods take priority over the use of personal protection equipment. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Ingredients with limit values that require monitoring at the workplace:	
Fibrous glass, textile grade	
LEP (Spain)	Long-term value: 1 fibre per cm <sup>3</sup>
VLEP (France)	Long-term value: 1 fibre per cm <sup>3</sup>
OEL (Sweden)	Long-term value: 1 fibre per cm
7631-86-9 amorphous silicon dioxide, chemically prepared	
AGW (Germany)	Long-term value: 4 E mg/m <sup>3</sup> DFG, 2, Y
1309-37-1 iron oxide	
AGW (Germany)	Long-term value: 1.25* 10** mg/m <sup>3</sup> 2(II);*alveolengängig**eintembar; AGS, DFG, Y
EP (Spain)	Long-term value: 5 mg/m <sup>3</sup> como Fe
VLEP (France)	Long-term value: 5 mg/m <sup>3</sup>
WEL	Short-term value: 10* mg/m <sup>3</sup> Long-term value: 5* 10** 4*** mg/m <sup>3</sup> *fume (as Fe), **total respirable, ***respirable
TWA (Italy)	Long-term value: 5 mg/m <sup>3</sup> A4, (j) (come Fe)
WGW (Netherland)	(als Fe)
OEL (Sweden)	Long-term value: 3.5 mg/m <sup>3</sup> respirabel fraktion, som Fe

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21645-51-2 aluminium hydroxide	
AGW (Germany)	Long-term value: 1.25* 10** mg/m <sup>3</sup> 2(II);*alveolengängig**eintembar; AGS, DFG, Y
VLEP (France)	Long-term value: 2 mg/m <sup>3</sup> en Al
WEL (Great Britain)	Long-term value: 2 mg/m <sup>3</sup>
OEL (Sweden)	Long-term value: 1 mg/m <sup>3</sup> som Al; totaldamm

**Regulatory information:**

LEP (Spain): Límites de exposición profesional para agentes químicos VLEP (France): ED 1487 05.2021 OEL (Sweden): AFS 2022:5 AGW (Germany): TRGS 900 WEL (Great Britain): EH40/2020 TWA (Italy): Valori Limite di Soglia WGW (Netherland): Grenswaarden gezondheidsschadelijke stoffen Additional information: Monitoring of substance concentrations in air at the workplace may be necessary to ensure compliance with official exposure limit values and adequacy of exposure controls. For further information contact the supplier or the competent authorities. The lists valid during the making were used as basis.

**Additional information**

Monitoring of substance concentrations in air at the workplace may be necessary to ensure compliance with official exposure limit values and adequacy of exposure controls. For further information contact the supplier or the competent authorities.

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:**

Select fit and use in accordance with local and national regulations.

**Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Appropriate safety eye wear is recommended.

Body protection: Appropriate work clothing is recommended.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:**

Form	Non-woven fabric
Colour	According to product specification
Odour	Characteristic
Odour threshold	Not determined.

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pH-value	Not applicable.
<b>Change in condition</b>	
Melting point/freezing point	Undetermined.
Initial boiling point and boiling range:	Undetermined.
Flash point	Not applicable.
Flammability (solid, gas)	Product is not flammable.
Decomposition temperature	Not determined.
Ignition temperature	Product is not selfigniting.
Explosive properties	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure	Not applicable.
Density	Not determined.
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with water:	Insoluble.
Partition coefficient:	n-octanol/water: Not determined.
Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	
Solids content:	100.0 %

## 9.2 Other information

No further relevant information available.

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** Not reactive under normal conditions of use.

**10.2 Chemical stability:** Stable under normal conditions.

No hazardous decomposition products during normal storage and use.  
See hazardous decomposition products on hot equipment below

**10.3 Possibility of hazardous reactions:** No dangerous reactions known .

**10.4 Conditions to avoid:** Avoid prolonged exposure above the recommended use temperature.

**10.5 Incompatible materials:** Strong acids and bases.

**10.6 Hazardous decomposition products:**

Thermal decomposition of trace components in the insulation is normal during installation of fibrous insulation materials onto hot equipment operating at temperatures above 200 °C and during startup. Emission of decomposition products usually only occurs during the first few hours.

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Low molecular weight alcohols, ammonia, and other undetermined decomposition products may be present when heated above 200 °C. When heated above 350 °C, primary combustion products are expected to include carbon dioxide, water, and possibly carbon monoxide.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effect

#### Acute toxicity:

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

#### Primary irritant effect:

Skin corrosion/irritation Handling may cause dryness and may cause temporary irritation to skin.  
Serious eye damage/irritation Handling may cause dryness and may cause temporary irritation to eyes.  
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

#### Additional toxicological information:

Thermal decomposition of trace components of the insulation during installation onto hot equipment operating at temperatures above 200 °C and during startup may generate fumes that may be irritating to the eyes and respiratory system.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Carcinogenicity: 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: Based on available data, the classification criteria are not met.  
STOT-repeated exposure: Based on available data, the classification criteria are not met.  
Aspiration hazard: Based on available data, the classification criteria are not met.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Aquatic toxicity:

Not toxic to aquatic environment.

### 12.2 Persistence and degradability

No further relevant information available.

### 12.3 Bioaccumulative potential

No further relevant information available.

### 12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes: Not hazardous for water.

### 12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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## 12.6 Other adverse effects

No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Recommendation:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Uncleaned packaging:**

Recommendation: Cover promptly to avoid dust generation.

## 14. TRANSPORT INFORMATION

### 14.1 UN-Number

ADR, IMDG, IATA Not regulated

### 14.2 UN proper shipping name

ADR, IMDG, IATA Not regulated

### 14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA  
Class Not regulated

### 14.4 Packing group

ADR, IMDG, IATA Not regulated

### 14.5 Environmental hazards

Not applicable.

### 14.6 Special precautions for user

Not applicable.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:

Not applicable.  
UN "Model Regulation": Not regulated

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

#### **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

REGULATION (EU) 2019/1148

#### **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

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**Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

**Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed

**15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out

**16. OTHER INFORMATION**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this article information sheet for storage, processing, transport and disposal.

The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this article information sheet is not valid for the new made-up material.

**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative