

## NOFIRNO - with flame retardant fillers

Version number: GHS 4.0

Revision: 2016-12-04

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name **NOFIRNO - with flame retardant fillers**  
Registration number (REACH) not relevant (mixture)

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Professional use

#### 1.3 Details of the supplier of the safety data sheet

Beele Engineering BV  
Beunkdijk 11  
7122 NZ Aalten  
Netherlands

Telephone: +31(0)543 461629  
Telefax: +31(0)543 461786  
e-mail: info@beele.com  
Website: beele.com

e-mail (competent person) info@beele.com (Hr. Beele)

#### 1.4 Emergency telephone number

Emergency information service +31(0)543 461629  
This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section. | Hazard class.                      | Category. | Hazard class and category. | Hazard statement. |
|----------|------------------------------------|-----------|----------------------------|-------------------|
| 3.2.     | Skin corrosion/irritation.         | 2.        | Skin Irrit. 2.             | H315.             |
| 3.3.     | Serious eye damage/eye irritation. | 2.        | Eye Irrit. 2.              | H319.             |

For full text of abbreviations: see SECTION 16.

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- signal word warning

- pictograms

GHS07



- hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

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### - precautionary statements

|                |  |
|----------------|--|
| P264           | Wash thoroughly after handling.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P321           | Specific treatment (see on this label).  |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |

### 2.3 Other hazards

This material is combustible, but will not ignite readily. Special danger of slipping by leaking/spilling product.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Description of the mixture

| Name of substance            | Identifier   | Wt%     | Classification acc. to GHS   |
|------------------------------|--|---------|--|
| 3-aminopropyltriethoxysilaan | CAS No<br>919-30-2<br><br>EC No<br>213-048-4<br><br>Index No<br>612-108-00-0               | 1 - < 5 | Acute Tox. 4 / H302<br>Skin Corr. 1B / H314                            |
| 2- Pentanone oxime           | REACH Reg. No<br>01-0000020248-72-xxxx   | 1 - < 5 | Acute Tox. 4 / H302<br>Eye Irrit. 2 / H319<br>Aquatic Chronic 3 / H412 |
| Octamethylcyclotetrasiloxane | CAS No<br>556-67-2<br><br>EC No<br>209-136-7<br><br>REACH Reg. No<br>01-2119529238-36-0002 | < 1     | Flam. Liq. 3 / H226<br>Repr. 2 / H361f<br>Aquatic Chronic 4 / H413     |

For full text of abbreviations: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

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**Following inhalation**

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

**Following skin contact**

Wash with plenty of soap and water.

**Following eye contact**

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

**Following ingestion**

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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

Symptoms and effects are not known to date.

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

none

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

Water jet

**5.2 Special hazards arising from the substance or mixture****Hazardous combustion products**

Nitrogen oxides (NO<sub>x</sub>)

**5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Remove persons to safety.

**For emergency responders**

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

**6.2 Environmental precautions**

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

**6.3 Methods and material for containment and cleaning up****Advices on how to contain a spill**

Covering of drains

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### Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: Sawdust, Kieselgur (diatomite), Sand, Universal binder

### Appropriate containment techniques

Use of adsorbent materials.

### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

## 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

#### Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

These information are not available.

| Relevant DNELs of components of the mixture |          |           |                        |                                    |                   |                            |
|---|----------|-----------|------------------------|------------------------------------|-------------------|----------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level        | Protection goal, route of exposure | Used in           | Exposure time              |
| 2- Pentanone oxime                          |          | DNEL      | 8.3 mg/m <sup>3</sup>  | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| 2- Pentanone oxime                          |          | DNEL      | 24.9 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | acute - systemic effects   |
| 2- Pentanone oxime                          |          | DNEL      | 0.208 mg/kg bw/day     | human, dermal                      | worker (industry) | chronic - systemic effects |
| 2- Pentanone oxime                          |          | DNEL      | 0.624 mg/kg bw/day     | human, dermal                      | worker (industry) | acute - systemic effects   |
| Octamethylcyclotetrasiloxane                | 556-67-2 | DNEL      | 73 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| Octamethylcyclotetrasiloxane                | 556-67-2 | DNEL      | 73 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | acute - systemic effects   |
| Octamethylcyclotetrasiloxane                | 556-67-2 | DNEL      | 73 mg/m <sup>3</sup>   | human, inhalatory                  | worker (industry) | chronic - local effects    |

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| Relevant DNELs of components of the mixture |          |           |                      |                                    |                   |                       |
|---|----------|-----------|----------------------|------------------------------------|-------------------|-----------------------|
| Name of substance                           | CAS No   | End-point | Threshold level      | Protection goal, route of exposure | Used in           | Exposure time         |
| Octamethylcyclotetrasiloxane                | 556-67-2 | DNEL      | 73 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | acute - local effects |

| Relevant PNECs of components of the mixture |          |           |                 |                       |                              |                              |
|---|----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance                           | CAS No   | End-point | Threshold level | Organism              | Environmental compartment    | Exposure time                |
| 2- Pentanone oxime                          |          | PNEC      | 0.088 mg/l      | aquatic organisms     | freshwater                   | short-term (single instance) |
| 2- Pentanone oxime                          |          | PNEC      | 0.009 mg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| 2- Pentanone oxime                          |          | PNEC      | 0.88 mg/l       | aquatic organisms     | water                        | intermittent release         |
| 2- Pentanone oxime                          |          | PNEC      | 2 mg/l          | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| 2- Pentanone oxime                          |          | PNEC      | 0.5 mg/kg       | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| 2- Pentanone oxime                          |          | PNEC      | 0.05 mg/kg      | aquatic organisms     | marine sediment              | short-term (single instance) |
| 2- Pentanone oxime                          |          | PNEC      | 0.05 mg/kg      | terrestrial organisms | soil                         | short-term (single instance) |
| Octamethylcyclotetrasiloxane                | 556-67-2 | PNEC      | 0.44 µg/l       | aquatic organisms     | freshwater                   | short-term (single instance) |
| Octamethylcyclotetrasiloxane                | 556-67-2 | PNEC      | 0.044 µg/l      | aquatic organisms     | marine water                 | short-term (single instance) |
| Octamethylcyclotetrasiloxane                | 556-67-2 | PNEC      | 10 mg/l         | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Octamethylcyclotetrasiloxane                | 556-67-2 | PNEC      | 3 mg/kg         | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Octamethylcyclotetrasiloxane                | 556-67-2 | PNEC      | 0.3 mg/kg       | aquatic organisms     | marine sediment              | short-term (single instance) |
| Octamethylcyclotetrasiloxane                | 556-67-2 | PNEC      | 0.16 mg/kg      | terrestrial organisms | soil                         | short-term (single instance) |

### 8.2 Exposure controls

Appropriate engineering controls  
General ventilation.

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### Individual protection measures (personal protective equipment)

#### Eye/face protection

Wear eye/face protection.

#### Skin protection

##### - hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### - other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid (paste) |
| Colour         | different      |
| Odour          | characteristic |

#### Other safety parameters

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| Melting point/freezing point            | not determined                                |
| Initial boiling point and boiling range | 172 °C at 101.7 kPa                           |
| Flash point                             | 69 °C at 102.1 kPa                            |
| Evaporation rate                        | not determined                                |
| Flammability (solid, gas)               | not relevant (fluid)                          |
| Explosive limits                        | not determined                                |
| Vapour pressure                         | 0.214 kPa at 20 °C                            |
| Density                                 | not determined                                |
| Vapour density                          | this information is not available             |
| Relative density                        | information on this property is not available |
| Solubility(ies)                         | not determined                                |

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## Partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
| Auto-ignition temperature   | not determined                    |
| Viscosity                   | not determined                    |
| Explosive properties        | none                              |
| Oxidising properties        | none                              |

**9.2 Other information**

|                                      |  |
|--------------------------------------|--|
| Solvent content                      | 53.61 %  |
| Solid content                        | 44.28 %  |
| Temperature class (EU, acc. to ATEX) | T2 (maximum permissible surface temperature on the equipment: 300°C) |

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

**10.2 Chemical stability**

See below "Conditions to avoid".

**10.3 Possibility of hazardous reactions**

No known hazardous reactions.

**10.4 Conditions to avoid**

There are no specific conditions known which have to be avoided.

**10.5 Incompatible materials**

Oxidisers

**10.6 Hazardous decomposition products**

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

##### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture |          |                |             |
|--|----------|----------------|-------------|
| Name of substance  | CAS No   | Exposure route | ATE         |
| 3-aminopropyltriethoxysilaan                               | 919-30-2 | oral           | 500 mg/kg   |
| 2- Pentanone oxime   |          | oral           | 1,133 mg/kg |

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

##### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

##### Carcinogenicity

Shall not be classified as carcinogenic.

##### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

##### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

##### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.



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**SECTION 12: Ecological information****12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

**12.2 Persistence and degradability**

Data are not available.

**12.3 Bioaccumulative potential**

Data are not available.

**12.4 Mobility in soil**

Data are not available.

**12.5 Results of PBT and vPvB assessment**

Data are not available.

**12.6 Other adverse effects**

Data are not available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

**Remarks**

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

**SECTION 14: Transport information****14.1 UN number** not subject to transport regulations**14.2 UN proper shipping name** not relevant**14.3 Transport hazard class(es)**

Class -

**14.4 Packing group** not relevant**14.5 Environmental hazards****14.6 Special precautions for user**

There is no additional information.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

The cargo is not intended to be carried in bulk.

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### Information for each of the UN Model Regulations

#### Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

Not subject to ADR, RID and ADN.

#### International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

#### International Civil Aviation Organization (ICAO-IATA/DGR)

Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

##### Deco-Paint Directive (2004/42/EC)

|             |         |
|-------------|---------|
| VOC content | 5.127 % |
|-------------|---------|

##### Directive on industrial emissions (VOCs, 2010/75/EU)

|             |         |
|-------------|---------|
| VOC content | 5.127 % |
|-------------|---------|

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value)   | Actual entry (text/value)   | Safety-relevant |
|---------|-----------------------------|---|-----------------|
| 3.2     |                             | Description of the mixture:<br>change in the listing (table)                                    | yes             |
| 9.2     | Solvent content:<br>62.93 % | Solvent content:<br>53.61 %   | yes             |
| 9.2     | Solid content:<br>34.96 %   | Solid content:<br>44.28 %   | yes             |
| 11.1    |                             | Acute toxicity estimate (ATE) of components of<br>the mixture:<br>change in the listing (table) | yes             |

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |

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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| CAS         | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP         | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR         | Dangerous Goods Regulations (see IATA/DGR)  |
| DNEL        | Derived No-Effect Level   |
| EC No       | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EINECS      | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS      | European List of Notified Chemical Substances   |
| Eye Dam.    | Seriously damaging to the eye   |
| Eye Irrit.  | Irritant to the eye   |
| Flam. Liq.  | Flammable liquid  |
| GHS         | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA        | International Air Transport Association   |
| IATA/DGR    | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO        | International Civil Aviation Organization   |
| IMDG        | International Maritime Dangerous Goods Code   |
| index No    | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| MARPOL      | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| PNEC        | Predicted No-Effect Concentration   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Repr.       | Reproductive toxicity   |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)           |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| VOC         | Volatile Organic Compounds  |
| vPvB        | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

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Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code  | Text  |
|-------|---|
| H226  | Flammable liquid and vapour.                            |
| H302  | Harmful if swallowed.                                   |
| H314  | Causes severe skin burns and eye damage.                |
| H315  | Causes skin irritation.                                 |
| H319  | Causes serious eye irritation.                          |
| H361f | Suspected of damaging fertility.                        |
| H412  | Harmful to aquatic life with long lasting effects.      |
| H413  | May cause long lasting harmful effects to aquatic life. |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.