

# Material Safety Data Sheet

acc. to ISO/DIS 11014

## 1 Identification of substance

### OETech 4

· **Application of the substance / the preparation** : Polyurethane-sealant

· **Supplier:**

Pilkington North America  
4370 Alum Creek Dr.  
Columbus, OH 43207  
866-377-3647


## 2 Composition/Data on components

· **Chemical characterization**

· **Description:**

Product containing a polyurethane prepolymer based on diphenylmethanediisocyanate.

· **Dangerous components:**

1333-86-4	Carbon black		5-15%
471-34-1	calcium carbonate		5-10%
101-68-8	diphenylmethane-4,4'-diisocyanate	 Xn; R 20-36/37/38-42/43	< 1%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 3 Hazards identification

· **Hazard description:**



Xn Harmful

· **WHMIS classification**

D2A - Very toxic material causing other toxic effects



· **Information pertaining to particular dangers for man and environment:**

R 42 May cause sensitization by inhalation.

Contains isocyanates. See information supplied by the manufacturer.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 1

Reactivity = 0

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## · WHMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

## 4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **The following symptoms may occur:**  
Dizziness  
Headache  
Dizziness  
Nausea

## 5 Fire fighting measures

- **Suitable extinguishing agents:**  
Carbon dioxide  
Foam  
Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
In case of fire, the following can be released:  
Carbon monoxide (CO)  
Nitrogen oxides (NOx)  
In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:  
Hydrogen cyanide (HCN)  
Isocyanates
- **Protective equipment:** Wear self-contained respiratory protective device.

## 6 Accidental release measures

- **Person-related safety precautions:** Ensure adequate ventilation
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or any water course.
- **Measures for cleaning/collecting:**  
Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.  
Do not close them (reaction with water forming carbon dioxide)

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Provide ventilation for receptacles.

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
 Keep receptacle tightly sealed.  
 Store in dry conditions.  
 Store in a cool place.

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

### 1333-86-4 Carbon black

PEL	3.5 mg/m <sup>3</sup>
REL	3.5* mg/m <sup>3</sup> *0.1 in presence of PAHs, as PAHs; 10-hr TWA
TLV	3.5 mg/m <sup>3</sup>

### 471-34-1 calcium carbonate

PEL	15*; 5** mg/m <sup>3</sup> *Total dust **Respirable fraction
REL	10*; 5** mg/m <sup>3</sup> *Total dust **Respirable fraction
TLV	10 mg/m <sup>3</sup> (e)

### 101-68-8 diphenylmethane-4,4'-diisocyanate

PEL	Short-term value: C 0.2 mg/m <sup>3</sup> , C 0.02 ppm
REL	Short-term value: C 0.2* mg/m <sup>3</sup> , C 0.02* ppm Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm *10-min
TLV	0.051 mg/m <sup>3</sup> , 0.005 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Avoid close or long term contact with the skin.  
 Wash hands before breaks and at the end of work.  
 Do not eat, drink or smoke while working.
- **Breathing equipment:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.  
 Short term filter device:  
 Filter AB
- **Protection of hands:**  
 PVA, natural, butyl, nitrile or polychloroprene rubber gloves of superior quality.  
 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

- **General Information**

<b>Form:</b>	Pasty
<b>Color:</b>	Black
<b>Odor:</b>	Light

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- |   |  |
|---|--|
| <b>· Change in condition</b>                                |  |
| <i>Melting point/Melting range: Undetermined.</i>           |  |
| <i>Boiling point/Boiling range: &gt; 250°C (&gt; 482°F)</i> |  |
| <b>· Flash point:</b>                                       | <i>&gt; 100°C (&gt; 212°F)</i>                       |
| <b>· Ignition temperature:</b>                              | <i>&gt;200°C (&gt;392°F)</i>                         |
| <b>· Auto igniting:</b>                                     | <i>Product is not selfigniting.</i>                  |
| <b>· Danger of explosion:</b>                               | <i>Product does not present an explosion hazard.</i> |
| <b>· Density at 20°C (68°F):</b>                            | <i>1.24</i>  |
| <b>· Solubility in / Miscibility with Water:</b>            |  |
| <i>Not miscible or difficult to mix.</i>                    |  |

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
*No decomposition if used according to specifications.*
- **Materials to be avoided:**
- **Dangerous reactions**  
*Reacts with alcohols, amines, aqueous acids and alkalis.*  
*Reacts with water forming carbon dioxide. Danger of receptacles bursting because of vapour overpressure.*
- **Dangerous products of decomposition:** *No dangerous decomposition products known.*

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *May be slightly irritant.*
- **on the eye:** *Light irritating effect.*
- **Sensitization:** *Sensitization possible through inhalation.*

## 12 Ecological information

- **Ecotoxicical effects:**
- **Other information:** -
- **General notes:**  
*Water hazard class 1 (Self-assessment): slightly hazardous for water*  
*Do not allow product to reach ground water, water course or sewage system.*

## 13 Disposal considerations

- **Product:**
- **Recommendation:**  
*Must be disposed of in an incinerator for hazardous waste according to official regulations.*
- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*

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## 14 Transport information

- |   |                |
|---|----------------|
| · <b>DOT regulations:</b>                       |                |
| · <b>Hazard class:</b>                          | -              |
| · <b>Land transport ADR/RID (cross-border):</b> |                |
| · <b>ADR/RID class:</b>                         | -              |
| · <b>Remarks:</b>                               | Not hazardous  |
| · <b>Maritime transport IMDG:</b>               |                |
| · <b>IMDG Class:</b>                            | -              |
| · <b>Marine pollutant:</b>                      | No             |
| · <b>Remarks:</b>                               | Not hazardous  |
| · <b>Air transport ICAO-TI and IATA-DGR:</b>    |                |
| · <b>ICAO/IATA Class:</b>                       | -              |
| · <b>Propper shipping name:</b>                 | Not regulated  |
| · <b>Remarks:</b>                               | Not hazardous. |

## 15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

101-68-8 | diphenylmethane-4,4'-diisocyanate

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

1333-86-4 | Carbon black

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

101-68-8	diphenylmethane-4,4'-diisocyanate	CBD;D
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· **IARC (International Agency for Research on Cancer)**

9002-86-2	Polyvinyl chloride	3
1333-86-4	Carbon black	2B
101-68-8	diphenylmethane-4,4'-diisocyanate	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

1333-86-4	Carbon black	A4
77-58-7	dibutyltin dilaurate	A4

· **MAK (German Maximum Workplace Concentration)**

1333-86-4	Carbon black	3
101-68-8	diphenylmethane-4,4'-diisocyanate	3

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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4 Carbon black

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with EU Directives.

· **Hazard symbols:**

Xn Harmful

· **Hazard-determining components of labelling:**

diphenylmethane-4,4'-diisocyanate

· **Risk phrases:**

42 May cause sensitization by inhalation.

· **Safety phrases:**

45 In case of accident or if you feel unwell, seek medical advice immediately.

· **Special labeling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· **Department issuing MSDS:** Laboratory

· **Contact:** Mr. Alain COLLET

· **In accordance with the international norm:** ISO 11014-1

· **\* Data compared to the previous version altered.**