

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/13/2006

Reviewed on 06/12/2006

1 Identification of substance

OETech 3, OETech 3S

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

· **Supplier:**

Pilkington North America
4370 Alum Creek Rd.
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	10-25%
108-88-3	toluene  Xn,  F; R 11-38-48/20-63-65-67	2-5%
64742-47-8	Distillates (petroleum), hydrotreated light  Xn; R 65-66	< 2.5%
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.

(Contd. on page 2)

Material Safety Data Sheet

acc. to ISO/DIS 11014

OETech 3, OETech 3S

(Contd. of page 1)

· NFPA ratings (scale 0 - 4)



Health = 0
Fire = 2
Reactivity = 0

· WHMIS-ratings (scale 0 - 4)



Health = *0
Fire = 2
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.
In case of unconsciousness place patient stably in side position for transportation.
- **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.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **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 (NO_x)
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
Keep away from ignition sources
- **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.

(Contd. on page 3)

Material Safety Data Sheet

acc. to ISO/DIS 11014

OETech 3, OETech 3S

(Contd. of page 2)

Do not close them (reaction with water forming carbon dioxide)

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Provide ventilation for receptacles.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from humidity and water.

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

108-88-3 toluene

PEL	Short-term value: C 300; 500* ppm Long-term value: 200 ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV	188 mg/m ³ , 50 ppm Skin; BEI

64742-47-8 Distillates (petroleum), hydrotreated light

TLV	200 mg/m ³ As total hydrocarbon vapor; Skin; (P)
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101-68-8 diphenylmethane-4,4'-diisocyanate

PEL	Short-term value: C 0.2 mg/m ³ , C 0.02 ppm
REL	Short-term value: C 0.2* mg/m ³ , C 0.02* ppm Long-term value: 0.05 mg/m ³ , 0.005 ppm *10-min
TLV	0.051 mg/m ³ , 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.
Do not inhale gases / fumes / aerosols.
Pregnant women should strictly avoid inhalation or skin contact.
- **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
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

(Contd. on page 4)

Material Safety Data Sheet

acc. to ISO/DIS 11014

OETech 3, OETech 3S

(Contd. of page 3)

· Protection of hands:

PVA 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. 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.

9 Physical and chemical properties

· General Information

Form:	Pasty
Color:	Black
Odor:	Light

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 110°C (230°F)

· Flash point: >50°C (>122°F)

· Flammability (solid, gaseous): The product is not subject to classification because its speed of combustion is lower than the limit of the regulation.

· Ignition temperature: 450°C (842°F)

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower: 1 Vol %

Upper: 8 Vol %

· Density at 20°C (68°F): 1.2

· Solubility in / Miscibility with

Water: Insoluble.

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: None to our knowledge at room temperature.

11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

· Primary irritant effect:

· on the skin: No irritant effect.

(Contd. on page 5)

Material Safety Data Sheet

acc. to ISO/DIS 11014

OETech 3, OETech 3S

(Contd. of page 4)

- **on the eye:** No irritating effect.
- **Sensitization:**
Sensitizing effect through inhalation is possible with prolonged exposure.
Sensitization possible through inhalation.

12 Ecological 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:** Incinerator for hazardous waste or authorized dump.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

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

15 Regulations

- **Sara**

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

None of the ingredient is listed.

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

108-88-3 toluene

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.

(Contd. on page 6)

Material Safety Data Sheet

acc. to ISO/DIS 11014

OETech 3, OETech 3S

(Contd. of page 5)

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

None of the ingredients is listed.

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

108-88-3 toluene

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

108-88-3	toluene	D
101-68-8	diphenylmethane-4,4'-diisocyanate	CBD;D

· **IARC (International Agency for Research on Cancer)**

1333-86-4	Carbon black	2B
108-88-3	toluene	3
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
108-88-3	toluene	A4

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

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

· **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.**