

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.03.2013





Version number 3

Revision: 29.11.2011

1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** illbruck FM617
- **MSDS code:** A-I-FM617
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Sealant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Tremco illbruck Productie B.V.
Vlietskade 1032, 4241 WC Arkel
T: +31 (0) 183568000, F: +31 (0) 183568100
msds@tremco-illbruck.com
- **Further information obtainable from:**
Tremco illbruck Ltd
Coupland Road, Hindley Green, Wigan, WN2 4HT
T: +44 (0) 1942251400, F: +44 (0) 1942251410
www.tremco-illbruck.co.uk, uk.info@tremco-illbruck.com
- **1.4 Emergency telephone number:**
During office hours tel.: +44 (0) 1942251400. At all other times please contact your national poisoning centre.

2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 -  **Xn; Harmful**
R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 -  **Xn; Sensitising**
R42/43: May cause sensitisation by inhalation and skin contact.
 -  **Xi; Irritant**
R36/37/38: Irritating to eyes, respiratory system and skin.
 -  **F+; Extremely flammable**
R12: Extremely flammable.
R53-64: May cause long-term adverse effects in the aquatic environment. May cause harm to breastfed babies.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Warning! Pressurized container.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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· 2.2 Label elements**· Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

Xn Harmful

F+ Extremely flammable

· Hazard-determining components of labelling:

diphenylmethanediisocyanate, isomers and homologues

· Risk phrases:

12 Extremely flammable.

20 Harmful by inhalation.

36/37/38 Irritating to eyes, respiratory system and skin.

40 Limited evidence of a carcinogenic effect.

42/43 May cause sensitisation by inhalation and skin contact.

48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

53 May cause long-term adverse effects in the aquatic environment.

64 May cause harm to breastfed babies.

· Safety phrases:

2 Keep out of the reach of children.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe vapour/spray.

36/37 Wear suitable protective clothing and gloves.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

51 Use only in well-ventilated areas.

· Special labelling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

· Classification in accordance with Directive 75/324/EEC: Extremely flammable**· 2.3 Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

3 Composition/information on ingredients

· 3.2 Chemical characterization: Mixtures**· Description:** Active substance with propellant

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








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· Dangerous components:

CAS: 9016-87-9 EINECS: 202-966-0	diphenylmethanediisocyanate, isomeres and homologues  Xn R20-40-48/20;  Xn R42/43;  Xi R36/37/38 Carc. Cat. 3  Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373;  Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	30- <50%
CAS: 85535-85-9 EINECS: 287-477-0	alkanes, C14-17, chloro  N R50/53 R64-66  Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	5- <10%
CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	5- <10%
CAS: 75-28-5 EINECS: 200-857-2	isobutane  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	5- <10%
CAS: 74-98-6 EINECS: 200-827-9	propane  F+ R12  Flam. Gas 1, H220;  Press. Gas, H280	5- <10%
CAS: 1244733-77-4 EC number: 911-815-4	tris(2-chloro-1-methylethyl)phosphate  Xn R22  Acute Tox. 4, H302	1- <5%

· Additional information:

While curing the following substances are formed and released by a reaction with atmospheric humidity:

Carbon dioxide

For the wording of the listed risk phrases refer to section 16.

4 First aid measures**· 4.1 Description of first aid measures**

· **General information:** Take affected persons out of danger area and lay down.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If symptoms persist consult doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

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

No further relevant information available.

· **Information for doctor:** No further relevant information available.

· **Hazards** No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Carbon monoxide (CO)
Carbon dioxide
Nitrogen oxides (NO_x)
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (HCN)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from water.
- **Further information about storage conditions:**
Keep container tightly sealed.
Do not seal receptacle gas tight.

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Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.· **8.1 Control parameters**· **Ingredients with limit values that require monitoring at the workplace:****9016-87-9 diphenylmethanediisocyanate, isomers and homologues**

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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115-10-6 dimethyl ether

WEL	Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm
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· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

· **Protection of hands:**

Protective gloves

· **Material of gloves** PE gloves· **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.

· **For the permanent contact gloves made of the following materials are suitable:**

Nitrile rubber, NBR
Natural rubber, NR

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

PE gloves

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- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Aerosol
 Colour: According to product specification

- **Odour:** Characteristic

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Not applicable, as aerosol.

Boiling point/Boiling range: Not applicable, as aerosol.

- **Flash point:** -97°C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 235°C

- **Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

Lower: 3.0 Vol %
 Upper: 18.6 Vol %

- **Vapour pressure at 20°C:** 5200 hPa

- **Density at 20°C:** 0.96 g/cm³

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

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- **Solvent content:**
 - VOC (EU)** 200.8 g/l
 - VOC (EC)** 20.90 %
- **9.2 Other information** No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

9016-87-9 diphenylmethanediisocyanate, isomers and homologues

Oral	LD50	> 10000 mg/kg (rat)
Dermal	LD50	> 10000 mg/kg (rabbit)
Inhalative	LC50/4 h	ca. 0.493 mg/L (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

9016-87-9 diphenylmethanediisocyanate, isomers and homologues

EC50/24 h	> 1000 mg/L (daphnia magna)
LC0/96 h	> 1000 mg/L (brachydanio rerio)
NOEC/21 d	> 10 mg/L (daphnia magna)

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- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** The product is difficultly biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

· Ecotoxicological effects:	
NOEC	> 1000 mg/L (daphnia magna)
	> 1000 mg/L (algae)

- **Remark:**

Using the previously mentioned tests, it can be proven that the ecotoxicological effects are very low. In keeping with the underlying regulations, the labeling was adjusted accordingly.

- **Other information:**

This product contains no substances in Annex I to Directive EC 2037/2000 concerning ozone depleting substances

- **Additional ecological information:**

- **General notes:**

Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
15 01 04	metallic packaging

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· 14.1 UN-Number	
· ADR, IMDG, IATA	UN1950

· 14.2 UN proper shipping name	
· ADR	1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
· IMDG	AEROSOLS (alkanes, C14-17, chloro), MARINE POLLUTANT
· IATA	AEROSOLS, flammable

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· 14.3 Transport hazard class(es)

· ADR



· Class

2 5F Gases.

· Label

2.1

· IMDG



· Class

2.1

· Label

2.1

· IATA



· Class

2.1

· Label

2.1

· 14.4 Packing group

· ADR, IMDG, IATA

Void

· 14.5 Environmental hazards:

Product contains environmentally hazardous substances: alkanes, C14-17, chloro

· Marine pollutant:

Yes

· Special marking (ADR):

Symbol (fish and tree)

Symbol (fish and tree)

· 14.6 Special precautions for user

Warning: Gases.

· Danger code (Kemler):

-

· EMS Number:

F-D,S-U

· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Tunnel restriction code

D

15 Regulatory information

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

Directive 1999/45/EC.

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"CLP" Regulation (EC) No 1272/2008 (OJ L 353, 31.12.2008, p.1).

"CHIP" SI 2009 No.716.

"REACH" Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p.1, with subsequent amendments).

"Aerosol" Regulation (EC) No 75/324.

- **National regulations:**

- **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57** Not applicable.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Relevant phrases**

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H362 May cause harm to breast-fed children.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

R12 Extremely flammable.

R20 Harmful by inhalation.

R22 Harmful if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitisation by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R64 May cause harm to breastfed babies.

R66 Repeated exposure may cause skin dryness or cracking.

- **Previous Revision Date:** 17-01-2011 (UK)

- *** Data compared to the previous version altered.**