

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

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

- **1.1 Product identifier**
- **Trade name:** TREMCO JS442 MF B HV
- **MSDS code:** D-T-JS442MFBHV
- **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** Polyurethane-sealant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
tremco illbruck Production S.A.S.
Route de Gray
F-21850 Saint Apollinaire
T: +33 (0) 971001824, F: +33 (0) 380748392
msds@tremco-illbruck.com, glazing@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.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 2 H351 Suspected of causing cancer.
STOT SE 3 H335 May cause respiratory irritation.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 1)

• Contains:

4,4'-methylenediphenyl diisocyanate, oligomers
 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane
 diphenylmethanediisocyanate, isomers and homologues
 4-isocyanatosulphonyltoluene

• Hazard statements

H332 Harmful if inhaled.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer.
 H335 May cause respiratory irritation.
 H373 May cause damage to organs through prolonged or repeated exposure.

• Precautionary statements

P284 In case of inadequate ventilation wear respiratory protection.
 P260 Do not breathe vapours.
 P280 Wear protective gloves / eye protection.
 P202 Do not handle until all safety precautions have been read and understood.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

• Supplemental information:

EUH204 Contains isocyanates. May produce an allergic reaction.

• 2.3 Other hazards**• Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

• 3.2 Mixtures

• **Description:** Mixture of substances listed below with non-hazardous additions.

• Dangerous components:

CAS: 25686-28-6 NLP: 500-040-3 Reg.nr.: 01-2119457014-47-xxxx	4,4'-methylenediphenyl diisocyanate, oligomers 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: 9016-87-9	diphenylmethanediisocyanate, isomers and homologues 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	10- <20%

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 2)

CAS: 2530-83-8 EINECS: 219-784-2 Reg.nr.: 01-2119513212-58-xxxx	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318	5- <10%
CAS: 4083-64-1 EINECS: 223-810-8	4-isocyanatosulphonyltoluene Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	0.1- <1%

• **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Take affected persons out of danger area and lay down.

Immediately remove any clothing soiled by the product.

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

• 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.

If skin irritation continues, consult a doctor.

• After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

• After swallowing:

Do not induce vomiting; call for medical help immediately.

Rinse out mouth and then drink plenty of water.

• 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.

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

No further relevant information available.

SECTION 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

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

• 5.3 Advice for firefighters

• Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 3)

- **Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

Clean the affected area carefully; suitable cleaners are:

Warm water and cleansing agent

- **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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

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

Risk of overpressure in the vessel!

Open and handle receptacle with care.

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with the eyes and skin.

Keep receptacles tightly sealed.

- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Provide solvent resistant, sealed floor.

- **Information about storage in one common storage facility:** Store away from oxidising agents.

- **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Protect from humidity and water.

Protect from heat and direct sunlight.

Storage temperature: +5 °C to +25 °C

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

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SECTION 8: Exposure controls/personal protection

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

(Contd. on page 5)

— GB —

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 4)

- **8.1 Control parameters**

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

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

101-68-8 4,4'-methylenediphenyl diisocyanate	
WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
4083-64-1 4-isocyanatosulphonyltoluene	
WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO

- **Additional information:**

The lists valid during the making were used as basis.

CAS 101-68-8

- **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

Do not inhale gases / fumes / aerosols.

Do not eat, drink, smoke or sniff while working.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter ABEK

- **Protection of hands:**



Protective gloves

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

Only use chemical-protective gloves with CE-labelling of category III.

- **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

- **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.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 5)

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Pasty

Colour: Black

- **Odour:** Weak, characteristic

- **Melting point/Melting range:** Undetermined.

- **Boiling point/Boiling range:** Undetermined.

- **Flash point:** >200 °C

- **Ignition temperature:** 400 °C

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

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 20 °C:** 1.15 g/cm³

- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

- **Solvent content:**
- **VOC (EC)** 0.00 %

- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable

- **10.2 Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

- **10.3 Possibility of hazardous reactions**

Reacts with strong oxidising agents.

Reacts with alkali, amines and strong acids.

Reacts with water.

Reacts with alcohols.

- **10.4 Conditions to avoid** No further relevant information available.

- **10.5 Incompatible materials:** No further relevant information available.

- **10.6 Hazardous decomposition products:** Carbon dioxide

GB

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 6)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful if inhaled.

LD/LC50 values relevant for classification:

25686-28-6 4,4'-methylenediphenyl diisocyanate, oligomers

Oral LD50 > 15000 mg/kg (rat)

Inhalative LC50/4 h 490 mg/L (rat)

9016-87-9 diphenylmethanediisocyanate, isomers and homologues

Oral LD50 > 10000 mg/kg (rat)

Dermal LD50 > 10000 mg/kg (rabbit)

Inhalative LC50/4 h >2.24 mg/L (rat)

Primary irritant effect:

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Contains isocyanates. May produce an allergic reaction.

Sensitising effect by skin contact is possible by prolonged exposure.

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

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

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

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

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

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

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

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

25686-28-6 4,4'-methylenediphenyl diisocyanate, oligomers

LC50/96 h > 1000 mg/L (brachydanio rerio)

LC50/24 h > 500 mg/L (brachydanio rerio)

EC50 > 100 mg/L (daphnia magna)

EC50/24 h > 1000 mg/L (daphnia magna)

EC50/72 h > 1640 mg/L (desmodesmus subspicatus)

NOEC/21 d > 10 mg/L (daphnia magna)

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 7)

9016-87-9 diphenylmethanediisocyanate, isomers and homologues

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

- **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:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 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.
- **Waste disposal key:** UK (WM3) : HP4 HP5 HP7 HP13

• European waste catalogue	
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances

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

SECTION 14: Transport information

- | | |
|--|------|
| • 14.1 UN-Number | |
| • ADR, ADN, IMDG, IATA | Void |
| • 14.2 UN proper shipping name | |
| • ADR, ADN, IMDG, IATA | Void |
| • 14.3 Transport hazard class(es) | |
| • ADR, ADN, IMDG, IATA | |
| • Class | Void |
| • 14.4 Packing group | |
| • ADR, IMDG, IATA | Void |
| • 14.5 Environmental hazards: | |
| • Marine pollutant: | No |
| • 14.6 Special precautions for user | |
| Not applicable. | |

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 8)

- | | |
|--|-----------------|
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
 "CHIP" Regulations SI 2009 No.716 (revoked 01.06.2015, only covering derogation period to 01.06.2017).
 "CLP" Regulation (EC) No 1272/2008 (OJ L 353, 31.12.2008, p.1).
 "REACH" Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p.1, with subsequent amendments).
 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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.

SECTION 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**
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 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.
 H373 May cause damage to organs through prolonged or repeated exposure.
- **Abbreviations and acronyms:**
 ADR: Accord européen sur le transport 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)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31



Printing date 10.10.2016

Version number 7

Revision: 06.10.2016

Trade name: TREMCO JS442 MF B HV

(Contd. of page 9)

SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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

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