

Safety data sheet

acc. to (EC) No 1907/2006, as amended by UK SI 2019/758

Printing date 17.11.2021

Version number 10

Revision: 17.11.2021

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

· 1.1 Product identifier

· Trade name: **TREMCO JS442 MF B**

· MSDS code: D-T-JS442MFB

· 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 CPG France SAS
 Route de Gray, F-21850 Saint Apollinaire
 T: +33 (0) 971001824, F: +33 (0) 380748392
 msds@cpg-europe.com, glazing@cpg-europe.com

· Further information obtainable from:

Tremco CPG UK Ltd
 Coupland Road, Hindley Green, Wigan, WN2 4HT
 T: +44 (0) 1942251400, F: +44 (0) 1942251410
 www.cpg-europe.com, info.uk@cpg-europe.com

· 1.4 Emergency telephone number:

During office hours tel.: +44 (0) 1942251400. At all other times it is recommended to call NHS 111 (England/Wales/Scotland), your local GP/pharmacist (NI), 01 809 2166 (ROI), or otherwise to contact a doctor.

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.

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- **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

- **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**

P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe vapours.
 P280 Wear protective gloves / eye protection.
 P284 In case of inadequate ventilation wear respiratory protection.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 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.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

- **Supplemental information:**

EUH204 Contains isocyanates. May produce an allergic reaction.
 As from 24 August 2023 adequate training is required before industrial or professional use.

- **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.

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· 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 EC number: 618-498-9	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%
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%

· **SVHC -**· **Additional information:**

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

While curing the following substances are formed and released by a reaction with atmospheric humidity:
Carbon dioxide (CO₂)**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.

· **Information for doctor:** No further relevant information available.· **4.2 Most important symptoms and effects, both acute and delayed**

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.

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.
- **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.

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- 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.

SECTION 8: Exposure controls/personal protection

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

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

CAS: 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
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CAS: 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
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- **PNECs**

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

PNEC	1 mg/L (fresh water) 10 mg/L (intermittent release) 0.1 mg/L (salt water)
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- **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.

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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

For further guidance,

please refer to HSE HSG53 "Respiratory Protective Equipment at work - A Practical Guide".

· **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.

· **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: Fluid

Colour: Black

· **Odour:** Weak, characteristic

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· pH-value:	
· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	Undetermined.
· Flash point:	>200 °C
· Ignition temperature:	400 °C
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Density at 20 °C:	1.12 g/cm ³
· Solubility in / Miscibility with water:	Immiscible / difficult to mix.
· Solvent content:	
· VOC (EU)	0.9 g/l
· VOC (EC)	0.08 %
· 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

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if inhaled.

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

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

Oral	LD50	>15,000 mg/kg (rat)
Inhalative	LC50/4 h	490 mg/L (rat)

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CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

Oral	LD50	>10,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	1.5 mg/L (rat)

CAS: 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Oral	LD50	8,025 mg/kg (rat)
Dermal	LD50	4,250 mg/kg (rabbit)

- **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.
- **Additional toxicological information:** Vapours may cause drowsiness and dizziness.
- **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:****CAS: 25686-28-6 4,4'-methylenediphenyl diisocyanate, oligomers**

LC50/96 h	>1,000 mg/L (brachydanio rerio)
LC50/24 h	>500 mg/L (brachydanio rerio)
EC50	>100 mg/L (daphnia magna)
EC50/24 h	>1,000 mg/L (daphnia magna)
EC50/72 h	>1,640 mg/L (desmodesmus subspicatus)

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

LC0/96 h	>1,000 mg/L (brachydanio rerio)
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EC50/24 h >1,000 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.

· **Ecotoxicological effects:****CAS: 25686-28-6 4,4'-methylenediphenyl diisocyanate, oligomers**

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

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

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

· **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.

· **European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP7	Carcinogenic
HP13	Sensitising

· **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

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· 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.
· 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**
 "EU-CLP" Regulation (EC) No 1272/2008 (OJ L 353, 31.12.2008, p.1)
 "EU-REACH" Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p.1, with subsequent amendments)
 COMMISSION REGULATION (EU) 2020/878 of 18 June 2020.
 HSE EH40/2005 Workplace Exposure Limits (as amended)
 Guidance on the classification and assessment of waste | Technical Guidance WM3 (1st edition 2015)
 "GB-CLP" The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019
 "UK-REACH" The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020
- **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** No further relevant information available.
- **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.

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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.

- **Department issuing SDS:**

Prepared and verified in accordance with "REACH" Regulation (EC) No 1907/2006, Annex II, Part A, 0.2.3.

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

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.**