



BE SURE. BUILD SURE.

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

Printing date 13.10.2023

Version number 5 (replaces version 4)

Revision: 13.10.2023

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

#### 1.1 Product identifier

#### Trade name

**VERGUSSMASSE 2300 TOP - Komponente B**

#### 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 resin  
Injektion  
Hardening agent/ Curing agent

#### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

MC-Bauchemie Müller GmbH & Co. KG  
Am Kruppwald 1-8  
D-46238 Bottrop  
Tel.: +49(0)2041-101-0  
Fax.: +49(0)2041-101-400  
E-Mail: info@mc-bauchemie.de

MC-Bauchemie AG  
Hagackerstr. 10  
CH-8953 Dietikon  
Tel.: +44-7400510  
Fax : +44-7400533

#### Informing department:

msds@mc-bauchemie.de

#### 1.4 Emergency telephone number:

Tel.: +49 / (0)700 24112112 (MCR)  
Tel.: +48612864565

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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 GB CLP regulation.

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· **Hazard pictograms**



GHS07 GHS08

· **Signal word**

Danger

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

diphenylmethane-4,4'-di-isocyanate  
diphenylmethane-2,4'-diisocyanate  
diphenylmethanediisocyanate, isomeres and homologues  
diphenylmethane-2,2'-diisocyanate

· **Hazard statements**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
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**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P284 [In case of inadequate ventilation] wear respiratory protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

· **Additional information:**

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

· **3.1 Substances**

· **CAS No. Designation:** 101-68-8 diphenylmethane-4,4'-di-isocyanate  
· **Identification number(s):**  
· **EC number:** 202-966-0  
· **Index number:** 615-005-00-9

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· **3.2 Mixtures**

· **Description:**

Resin mixture.

Mixture consisting of the following components.

· **Dangerous components:**

CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	diphenylmethane-4,4'-di-isocyanate 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, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	30-60%
CAS: 5873-54-1 EINECS: 227-534-9	diphenylmethane-2,4'-diisocyanate 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, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	30-60%
CAS: 28553-12-0 EINECS: 249-079-5	diisononyl phthalate substance with a Community workplace exposure limit	10-30%
CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres 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, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	10-30%
CAS: 2536-05-2 EINECS: 219-799-4	diphenylmethane-2,2'-diisocyanate 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, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	≥1-<2.5%

· **Additional information**

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

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Take affected persons into the open air.  
Seek medical treatment.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

##### After inhalation

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

##### After skin contact

Instantly wash with water and soap and rinse thoroughly.

##### After eye contact

Call a doctor immediately.

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

##### After swallowing

Call a doctor immediately.

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

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** Use fire fighting measures that suit the environment.

#### 5.2 Special hazards arising from the substance or mixture

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

Can be released in case of fire

Carbon monoxide (CO)

Nitrogen oxides (NO<sub>x</sub>)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

#### 5.3 Advice for firefighters

##### Protective equipment:

Put on breathing apparatus.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

#### 6.2 Environmental precautions:

Do not allow product to reach sewage system or water bodies.

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- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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 information on disposal.

#### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class** 10
- **7.3 Specific end use(s)** No further relevant information available.

#### SECTION 8: Exposure controls/personal protection

##### 8.1 Control parameters

##### Components with critical values that require monitoring at the workplace:

###### 101-68-8 diphenylmethane-4,4'-di-isocyanate

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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###### 5873-54-1 diphenylmethane-2,4'-diisocyanate

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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###### 28553-12-0 diisononyl phthalate

WEL	Long-term value: 5 mg/m <sup>3</sup>
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**9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

WEL Short-term value: 0.07 mg/m<sup>3</sup>  
Long-term value: 0.02 mg/m<sup>3</sup>  
Sen; as -NCO

**2536-05-2 diphenylmethane-2,2'-diisocyanate**

WEL Short-term value: 0.07 mg/m<sup>3</sup>  
Long-term value: 0.02 mg/m<sup>3</sup>  
Sen; as -NCO

**· DNELs**

**101-68-8 diphenylmethane-4,4'-di-isocyanante**

Dermal DNEL 50 mg/kg bw/day (Ark)  
Inhalative DNEL 0.05 mg/m<sup>3</sup> (ArL)

**5873-54-1 diphenylmethane-2,4'-diisocyanate**

Inhalative DNEL 0.05 mg/m<sup>3</sup> (ArL)

**9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

Inhalative DNEL 0.05 mg/m<sup>3</sup> (ArL)

**· PNECs**

**101-68-8 diphenylmethane-4,4'-di-isocyanante**

PNEC 1 mg/l (Sewage Treatment Plant)  
0.1 mg/l (Mew)  
1 mg/l (Suw)  
PNEC 1 mg/kg dwt (Bod)

**5873-54-1 diphenylmethane-2,4'-diisocyanate**

PNEC 1 mg/l (Sewage Treatment Plant)  
0.1 mg/l (Mew)  
1 mg/l (Suw)  
PNEC 1 mg/kg dwt (Bod)

**9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**

PNEC 1 mg/l (Sewage Treatment Plant)  
0.1 mg/l (Mew)  
1 mg/l (Suw)  
PNEC 1 mg/kg dwt (Bod)

**· Ingredients with biological limit values:**

**101-68-8 diphenylmethane-4,4'-di-isocyanante**

BMGV 1 µmol creatinine/mol  
Medium: urine  
Sampling time: At the end of the period od exposure  
Parameter: isocyanate-derived diamine

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**5873-54-1 diphenylmethane-2,4'-diisocyanate**

BMGV 1 µmol creatinine/mol  
Medium: urine  
Sampling time: At the end of the period of exposure  
Parameter: isocyanate-derived diamine

**2536-05-2 diphenylmethane-2,2'-diisocyanate**

BMGV 1 µmol creatinine/mol  
Medium: urine  
Sampling time: At the end of the period of exposure  
Parameter: isocyanate-derived diamine

- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures** Use skin protection cream for preventive skin protection.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes and skin.
- **Breathing equipment:** Respiratory protection is required at inadequately ventilated workplaces and during spray processing. Fresh air masks or combination filters A2-P2 are recommended for short-term work.
- **Hand protection** Conditionally suitable materials for protective gloves; EN 374-3:  
Nitrile rubber - NBR: Thickness ≥ 0.35mm.  
Only suitable for splash protection. Only suitable for short-term exposure. In case of contamination, the protective gloves must be changed immediately.
- **Material of gloves** Nitrile rubber, NBR
- **Penetration time of glove material** The exact breakthrough time must be obtained from the protective glove manufacturer and must be observed.
- **Eye/face protection** Safety glasses  
Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Colour:** Light brown
- **Smell:** Characteristic

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· <b>Melting point/freezing point:</b>	Not determined
· <b>Boiling point or initial boiling point and boiling range</b>	1 9 0 ° C ( 9 0 1 6 - 8 7 - 9 diphenylmethanediisocyanate, isomeres and homologues)
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	<0.1 Vol % (28553-12-0 diisononyl phthalate)
· <b>Upper:</b>	0.2 Vol %
· <b>Flash point:</b>	>200 °C
· <b>Auto-ignition temperature:</b>	4 0 0 ° C ( 9 0 1 6 - 8 7 - 9 diphenylmethanediisocyanate, isomeres and homologues)
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>dynamic at 20 °C:</b>	27 mPas
· <b>Solubility</b>	
· <b>Water:</b>	Not miscible or difficult to mix
· <b>Steam pressure at 219 °C:</b>	2.6 hPa (28553-12-0 diisononyl phthalate)
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C</b>	1.16 g/cm <sup>3</sup>

<b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive.
· <b>Molecular weight</b>	360 g/mol

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void

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- Corrosive to metals Void
- Desensitised explosives Void

#### SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions Violent reaction with water at high temperatures  
Reacts with amines
- 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

#### SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Based on available data, the classification criteria are not met.

##### LD/LC50 values that are relevant for classification:

Oral	LD50	>10000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Kan)
Inhalative	LC50/4 h	~450 mg/l (Rat)

##### 101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)

##### 28553-12-0 diisononyl phthalate

Oral	LD50	10000 mg/kg (rat)
------	------	-------------------

##### 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>10000 mg/kg (Rat)
Dermal	LD50	>5000 mg/kg (Rab)
Inhalative	LC50/4 h	~450 mg/l (Rat)

- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- 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.

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- **Uncleaned packagings:**
- **Recommendation:** Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

#### SECTION 14: Transport information

- **14.1 UN number or ID 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.
- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
- **UN "Model Regulation":** Void

#### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

#### SECTION 16: Other information

These data are based on our present knowledge. However, they 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.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
  - H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H335 *May cause respiratory irritation.*  
H351 *Suspected of causing cancer.*  
H373 *May cause damage to organs through prolonged or repeated exposure.*  
EUH204 *Contains isocyanates. May produce an allergic reaction.*

· **Department issuing data specification sheet:**

*Environment protection department.*

· **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*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)*

*DNEL: Derived No-Effect Level (UK REACH)*

*PNEC: Predicted No-Effect Concentration (UK REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*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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