

## Safety data sheet

acc. to EU regulations 1272/2008 and 1907/2006 incl. all amendments

Printing date 13.08.2015

Revision: 13.08.2015

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

#### 1.1 Product identifier

**Trade name:** DINITROL 500

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Sector of Use** SU3, SU17, SU21, SU22

**Product category** PC1 Adhesives, sealants

**Process category** PROC1-5, PROC7, PROC8a, PROC8b, PROC9-11, PROC13-14, PROC 19, PROC21

**Environmental release category** ERC5, ERC8c, ERC8d, ERC8f

**Article category** Not applicable

**Application of the substance / the mixture** Adhesives

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

##### Manufacturer/Supplier:

**Hersteller/ Producer:** EFTEC AG, Hofstrasse 31, CH-8590 Romanshorn

**EU-Importeur/ EU-Importer:** EFTEC Ltd., Rhigos/Aberdare, GB-Mid Glamorgan CF44 9UE (Responsible for chemical registration in EU)

**Lieferant/ Supplier:** DINOL GmbH, Pyrmonterstrasse 76, D-32676 Lügde

**Further information obtainable from:** msds@dinol.com

**1.4 Emergency telephone number:** Giftnotruf D-Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Sensitising

R42: May cause sensitisation by inhalation.

##### 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.

##### Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

#### 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



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**Signal word** *Danger***Hazard-determining components of labelling:***diphenylmethane-4,4'-di-isocyanate***Hazard statements***H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.***Precautionary statements***P284 [In case of inadequate ventilation] wear respiratory protection.**P261 Avoid breathing dust/fume/gas/mist/vapours/spray.**P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***Additional 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 nonhazardous additions.

<b>Dangerous components:</b>		
CAS: 28553-12-0 EINECS: 249-079-5	di-"isononyl" phthalate substance with a Community workplace exposure limit	25-50%
CAS: 1333-86-4 EINECS: 215-609-9	Carbon black substance with a Community workplace exposure limit	10-<25%
CAS: 101-68-8 EINECS: 202-966-0	diphenylmethane-4,4'-di-isocyanate ☒ 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	0,1-<1%

**Additional information:** For the wording of the listed risk phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** Call for 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 extinguishing methods suitable to surrounding conditions.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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## 5.3 Advice for firefighters

**Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Not required.

**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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

Pick up mechanically.

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 disposal information.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** No special measures required.

**Information about fire - and explosion protection:** No special measures required.

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

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Maximum storage temperature:** < 30 °C

**Minimum storage temperature:** > 0 °C

**Storage temperature:** 0 - 30 °C

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

## SECTION 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:**

**28553-12-0 di-"isononyl" phthalate**

WEL (Great Britain english) Long-term value: 5 mg/m<sup>3</sup>

**1333-86-4 Carbon black**

WEL (Great Britain english) Short-term value: 7 mg/m<sup>3</sup>  
Long-term value: 3,5 mg/m<sup>3</sup>

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

AGW (DACH) Long-term value: 0,05 E mg/m<sup>3</sup>  
I;=2=(I);DFG, 11, 12, H, Sah, Y

WEL (Great Britain english) 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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**Ingredients with biological limit values:****101-68-8 diphenylmethane-4,4'-di-isocyanate**

BGW (DACH)	10 µg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: 4,4'-Diaminodiphenylmethan
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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.

Wash hands before breaks and at the end of work.

**Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A

**Protection of hands:**

Protective gloves (DIN EN 374)

Chemical resistant protective gloves with CE-labeling

To minimise the wetness in the glove due to perspiration changing of gloves during a shift is required.

Softening of the callus when wearing air-impermeable gloves is possible.

Check the permeability prior to each anewed use of the glove.

**Material of gloves**

Nitrile rubber, NBR

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.

**Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**

Safety glasses (DIN EN 166)

**Body protection:**

Protective work clothing

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General Information

##### Appearance:

<b>Form:</b>	Liquid
<b>Colour:</b>	Black
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

**pH-value:** Not determined.

##### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	270 °C

**Flash point:** 164 °C

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

**Ignition temperature:** > 300 °C

**Decomposition temperature:** Not determined.

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

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

##### Explosion limits:

<b>Lower:</b>	0,4 Vol %
<b>Upper:</b>	2,9 Vol %

**Vapour pressure:** Not determined.

<b>Density at 20 °C:</b>	1,21 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

**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.

##### Solvent content:

**Organic solvents:** 0,0 %

**Solids content:** 70,3 %

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

### 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** No dangerous reactions known.

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**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 toxicological effects****Acute toxicity****LD/LC50 values relevant for classification:****101-68-8 diphenylmethane-4,4'-di-isocyanate**

Oral LD50 4700 mg/kg (rat)

Inhalative LC50/ 4h 370 mg/l (rat)

**Primary irritant effect:****Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation**

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

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:****101-68-8 diphenylmethane-4,4'-di-isocyanate**

EC50 &gt;100 mg/l (bacteria)

EC50/ 24h &gt;1000 mg/l (daphnia)

LC50 &gt; 100 mg/l (fish)

LC50/ 96h &gt;1000 mg/l (fish)

**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:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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.

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**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.

**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.**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****Directive 2012/18/EU**

Named dangerous substances - ANNEX I None of the ingredients is listed.

**National regulations:****Technical instructions (air):**

Class	Share in %
I	0.1-1

**Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**The mixture of substances contain no SVHC (Substances of Very High Concern, <http://echa.europa.eu>)**EU-VOC:** 0,00 %**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### 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.  
 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.
- R20 Harmful by inhalation.  
 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.

#### Department issuing MSDS: Entwicklung

Contact: msds@dinol.com

#### 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)  
 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, Hazard Category 4  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1  
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
 Carc. 2: Carcinogenicity, Hazard Category 2  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2