

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

Printing date 30.11.2010

Revision: 30.11.2010

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

- **Product identifier**
- **Trade name:** DINITROL 501 FC-HM
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Polyurethane-sealant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
EFTEC AG, Hofstrasse 31, CH-8590 Romanshorn, Switzerland  
DINOL GmbH, Pyrmonterstr. 76, D-32676 Lügde
- **Further information obtainable from:**  
Tel. +49(0)5281 98298 0, FAX +49(0)5281 98298 60  
thomas.suerig@dinol.com
- **Emergency telephone number:** Giftnotruf Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.

### 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
 Xn; Sensitising  
R42/43: May cause sensitisation by inhalation and skin contact.
- **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.

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- **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
- **Hazard-determining components of labelling:**  
diphenylmethane-4,4'-di-isocyanate
- **Risk phrases:**  
42/43 May cause sensitisation by inhalation and skin contact.
- **Safety phrases:**  
23 Do not breathe aerosol.  
24 Avoid contact with skin.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
37 Wear suitable gloves.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
60 This material and its container must be disposed of as hazardous waste.

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- **Special labelling of certain preparations:**  
Contains isocyanates. See information supplied by the manufacturer
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 28553-12-0 EINECS: 249-079-5	di-"isononyl" phthalate	10-25%
CAS: 101-68-8 EINECS: 202-966-0	diphenylmethane-4,4'-di-isocyanate ☒ Xn R20; ☒ Xn R42/43; ☒ Xi R36/37/38	1-5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **Description of first aid measures**
- **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.  
Supply fresh air; consult doctor in case of complaints.  
Seek medical treatment in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.  
Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **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:** < 35°C
- **Minimum storage temperature:** > 0°C
- **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.
- **Control parameters**

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

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

WEL Long-term value: 5 mg/m<sup>3</sup>

**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

· **Additional information:** The lists valid during the making were used as basis.

- **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.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

- **Material of gloves** Rubber 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.
- **Eye protection:** Goggles recommended during refilling

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### 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
Form:	Fluid
Colour:	Black
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· <b>Change in condition</b>	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	208°C
· Flash point:	> 100°C
· Ignition temperature:	300°C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	0.4 Vol %
Upper:	2.9 Vol %
· Vapour pressure:	Not determined.
· Density at 20°C:	1.2 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Segregation coefficient (n-octanol/water):	Not determined.
· <b>Viscosity:</b>	
Dynamic:	Not determined.
Kinematic:	Not determined.
· <b>Solvent content:</b>	
Organic solvents:	0.0 %
Solids content:	99.0 %
· Other information	No further relevant information available.

### 10 Stability and reactivity

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

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### 11 Toxicological information

- **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:**

- **on the skin:** No irritant effect.

- **on the eye:** No 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

- **Sensitisation** May cause sensitisation by inhalation and skin contact.

### 12 Ecological information

- **Toxicity**

- **Acquatic toxicity:**

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

LC50	> 100 mg/l (fish)
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- **Persistence and degradability** No further relevant information available.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **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.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

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

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances

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

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

- **Technical instructions (air):**

Class	Share in %
I	1-5

- **EU-VOC:** 0.00 %
- **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**

R20 Harmful by inhalation.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R42/43 May cause sensitisation by inhalation and skin contact.

- **Department issuing MSDS:** Entwicklung
- **Contact:** Dr. T.Suerig
- **\* Data compared to the previous version altered.**