Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 Revision: 16.01.2011

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

· **Product details**

· **Trade name: Dinitrol 410 UV weiss**

· **Application of the substance / the preparation**
Sealant
Spacings sealent

· **Manufacturer/Supplier:**
Dinol GmbH
Pyrmonter Strasse 76
D-32676 Lügde
Tel: +49 5281 9829 80
Fax: +49 5281 9829 860
E-mail: thomas.suerig@dinol.com

· **Further information obtainable from:** Research & Development
· **Information in case of emergency:** Giftnotruf Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.

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2 Hazards identification

· **Classification of the substance or mixture**

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

Xi; Sensitising

R43-42: May cause sensitisation by skin contact. 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.

· **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 diisocyanate (prepolymer)
Diphenylmethane-4,4'-di-isocyanate

· **Risk phrases:**
42/43 May cause sensitisation by inhalation and skin contact.

· **Safety phrases:**
23 Do not breathe fumes.
24/25 Avoid contact with skin and eyes.
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.

(Contd. on page 2)

DINOL

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 Revision: 16.01.2011

Trade name: Dinitrol 410 UV weiss

(Contd. of page 1)

· **Special labelling of certain preparations:**
Contains isocyanates. See information supplied by the manufacturer

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3 Composition/information on ingredients

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

· **Dangerous components:**

CAS: 59675-67-1	Diphenylmethane diisocyanate (prepolymer) Xi R43-42	10-<25%
CAS: 1330-20-7 EINECS: 215-535-7	Xylene, mixed isomers, pure Xn R20/21; Xi R38 R10	5-<10%
NLP: 500-040-3	4,4'-Methylenediphenyldiisocyanate, oligomers Xn R20-40-48/20; Xi R36/37/38; Xi R43-42 Carc. Cat. 3	<1%
CAS: 4083-64-1 EINECS: 223-810-8	4-isocyanatosulphonyltoluene Xi R36/37/38; Xi R42 R14	<1%
CAS: 101-68-8 EINECS: 202-966-0	Diphenylmethane-4,4'-di-isocyanate Xn R20-40-48/20; Xi R36/37/38; Xi R43-42 Carc. Cat. 3	<1%
CAS: 85099-51-0 ELINCS: 400-580-9	Dodecyl-3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3.20-diazadispiro(5,1,11,2) henicosan-20-yl)propionat Xi R38; N R51/53	<1%
CAS: 1843-05-6	2-Hydroxy-4-n-octoxy-benzophenon Xi R43 R52/53	<1%
CAS: 85099-50-9 ELINCS: 400-580-9	Tetradecyl-3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3,20-diazadispiro(5,1,11,2) henicosan-20-yl)propionat Xi R38; N R51/53	<1%
CAS: 26523-78-4 EINECS: 247-759-6	Trisnonylphenylphosphit Xi R38; Xi R43; N R50/53	<1%
	Aromatisches Isocyanat-Prepolymer Xi R43-42	<1%

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

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4 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.
· **After skin contact:**
Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
If skin irritation continues, consult a doctor.
· **After eye contact:** Rinse opened eye for several minutes under running water.

(Contd. on page 3)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 *Revision: 16.01.2011*

Trade name: Dinitrol 410 UV weiss

(Contd. of page 2)

· ***After swallowing:*** *Do not induce vomiting; call for medical help immediately.*

5 Firefighting measures

· ***Suitable extinguishing agents:*** *CO2, powder or water spray. Fight larger fires with water spray.*
· ***Special hazards caused by the substance, its products of combustion or resulting gases:***
Carbon monoxide (CO)
Nitrogen oxides (NOx)
Hydrogen cyanide (HCN)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
· ***Protective equipment:*** *Wear self-contained respiratory protective device.*
· ***Additional information***
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

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6 Accidental release measures

· ***Person-related safety precautions:*** *Not required.*
· ***Measures for environmental protection:*** *Do not allow to enter sewers/ surface or ground water.*
· ***Measures for cleaning/collecting:***
Pick up mechanically.
Ensure adequate ventilation.

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7 Handling and storage

· ***Handling:***
· ***Information for safe handling:*** *Ensure good ventilation/exhaustion at the workplace.*
· ***Information about fire - and explosion protection:*** *Keep ignition sources away - Do not smoke.*

· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** *Prevent any seepage into the ground.*
· ***Information about storage in one common storage facility:*** *Store away from foodstuffs.*
· ***Further information about storage conditions:***
Protect from frost.
Keep container tightly sealed.
Protect from heat and direct sunlight.
Store receptacle in a well ventilated area.
Store in dry conditions.

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8 Exposure controls/personal protection

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

· ***Ingredients with limit values that require monitoring at the workplace:***	
1330-20-7 Xylene, mixed isomers, pure	
WEL	*Short-term value: 441 mg/m³, 100 ppm* *Long-term value: 220 mg/m³, 50 ppm* *Sk; BMGV*

(Contd. on page 4)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 Revision: 16.01.2011

Trade name: Dinitrol 410 UV weiss

(Contd. of page 3)

101-68-8 Diphenylmethane-4,4'-di-isocyanate	
WEL	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

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

· **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:**
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.
· **Protection of hands:**

Protective gloves

· **Material of gloves**
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.
Neoprene gloves (0,47 mm)
Nitrile rubber
· **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.
· **Not suitable are gloves made of the following materials:**
Natural rubber
Strong material gloves
· **Eye protection:** Safety glasses
· **Body protection:** Protective work clothing

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9 Physical and chemical properties

· **General Information**	
· **Appearance:**	
Form:	Pasty
Colour:	White
· **Odour:**	Characteristic
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	137°C
· **Flash point:**	Not applicable.
· **Ignition temperature:**	500°C
· **Self-igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.

(Contd. on page 5)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 Revision: 16.01.2011

Trade name: Dinitrol 410 UV weiss

(Contd. of page 4)

· **Explosion limits:**	
Lower:	1.1 Vol %
Upper:	7.6 Vol %
· **Vapour pressure At 20°C:**	~7 mbar
· **Density At 20°C:**	1.26 g/cm³
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Viscosity:**	
Dynamic At 20°C:	110000 mPas
· **Solvent content:**	
Organic solvents:	5.8 %
Solids content:	66.6 % (DIN 53216)
· **Additional information:**	
VOC (EU):	5.80 %
VOC (EU):	72.0 g/l

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10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **Materials to be avoided:**
· **Dangerous reactions** Reacts with alcohols, amines, aqueous acids and alkalis.
· **Dangerous decomposition products:**
Possible in traces.
Isocyanate

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11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Prolonged or repeated contact with skin may cause slight irritation and/or reddening.
· **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
· **Sensitisation** May cause sensitisation by inhalation and skin contact.

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12 Ecological information

· **Information about elimination (persistence and degradability):**
· **Other information:** There is no data available for the product.

(Contd. on page 6)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 Revision: 16.01.2011

Trade name: Dinitrol 410 UV weiss

(Contd. of page 5)

· **Ecotoxical effects:**
· **Remark:** There is no data available for the product.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

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13 Disposal considerations

· **Product:**
· **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
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10	packaging containing residues of or contaminated by dangerous substances

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

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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:** -

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15 Regulatory information

· **Chemical safety assessment** A Chemical Safety Assessment has not been carried out.

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
I	1-5
NK	5-10

(Contd. on page 7)

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 16.01.2011 *Revision: 16.01.2011*

Trade name: Dinitrol 410 UV weiss

(Contd. of page 6)

· ***Waterhazard class:*** *Water hazard class 2 (Self-assessment): hazardous for water.*

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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***

R10	*Flammable.*
R14	*Reacts violently with water.*
R20	*Harmful by inhalation.*
R20/21	*Harmful by inhalation and in contact with skin.*
R36/37/38	*Irritating to eyes, respiratory system and skin.*
R38	*Irritating to skin.*
R40	*Limited evidence of a carcinogenic effect.*
R42	*May cause sensitisation by inhalation.*
R42/43	*May cause sensitisation by inhalation and skin contact.*
R43	*May cause sensitisation by skin contact.*
R48/20	*Harmful: danger of serious damage to health by prolonged exposure through inhalation.*
R50/53	*Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
R51/53	*Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
R52/53	*Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*

· ***Recommended restriction of use*** *Reserved for industrial and professional use.*

· ***Department issuing MSDS:*** *Research & Development*
· ***Contact:*** *Dr. Thomas Sürig*
· **** Data compared to the previous version altered.***