




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

- **1.1 Product identifier**
- **Trade name: DINITROL 840 Skimfix "Rapide" Härter (Isocyanat)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation**  
Adhesives  
Glue/ Sizing agent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
DINOL GmbH  
Pyrmonter Str. 76  
D-32676 Lügde  
Tel: +49 5281 9829 80  
Fax: +49 5281 9829 860  
E-mail: msds@dinol.com
- **Further information obtainable from:** Research & Development
- **1.4 Emergency telephone number:** Giftnotruf 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 Directive 67/548/EEC or Directive 1999/45/EC**
-  **Xn; Harmful**  
R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.
-  **Xn; Sensitising**  
R42/43: May cause sensitisation by inhalation and skin contact.
-  **Xi; Irritant**  
R36/37/38: Irritating to eyes, respiratory system and skin.
- **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 EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The product has been marked in accordance with EU Directives / respective national laws.  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.  
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.
- **Code letter and hazard designation of product:**  
Xn Harmful
- **Hazard-determining components of labelling:**  
Diphenylmethanediisocyanate, isomeres and homologues  
Formaldehyde, oligomeric reaction products with aniline and phosgene

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**Trade name: DINITROL 840 Skimfix "Rapide" Härter (Isocyanat)**

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· **Risk phrases:**

- 20 Harmful by inhalation.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 40 Limited evidence of a carcinogenic effect.
- 42/43 May cause sensitisation by inhalation and skin contact.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

· **Safety phrases:**

- 9 Keep container in a well-ventilated place.
- 23 Do not breathe vapour/spray.
- 24/25 Avoid contact with skin and eyes.
- 36/37 Wear suitable protective clothing and 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.

· **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

















- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

· **3.2 Chemical characterization: Mixtures**

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

· **Dangerous components:**

CAS: 9016-87-9	Diphenylmethanediisocyanate, isomeres and homologues  Xn R20-40-48/20;  Xn R42/43;  Xi R36/37/38 Carc. Cat. 3 <hr style="border-top: 1px dashed black;"/>  Resp. Sens. 1, H334;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319; STOT SE 3, H335	25-<50%
CAS: 32055-14-4 NLP: 500-079-6	Formaldehyde, oligomeric reaction products with aniline and phosgene  Xn R40-48/20;  Xn R42/43;  Xi R36/37/38 <hr style="border-top: 1px dashed black;"/>  Resp. Sens. 1, H334;  Carc. 2, H351; STOT RE 2, H373;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  Skin Sens. 1, H317; STOT SE 3, H335	25-<50%
CAS: 2530-83-8 EINECS: 219-784-2	3-Glycidyloxypropyltrimethoxysilan  Xi R41 <hr style="border-top: 1px dashed black;"/>  Eye Dam. 1, H318	1-<5%

· **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**

· **General information:**

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

· **After inhalation:**

Take affected persons into fresh air and keep quiet.

Seek medical treatment in case of complaints.

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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- **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. If symptoms persist, consult a doctor.
- **After swallowing:** Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and delayed** Breathing difficulty
- **Hazards** Danger of impaired breathing.
- **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**  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen cyanide (HCN)  
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.  
Mount respiratory protective device.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective clothing.  
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:**  
Prevent from spreading (e.g. by damming-in or oil barriers).  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose 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 disposal information.

### **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**  
Extractor required at the object.  
Use only in well ventilated areas.

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- **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:**  
Store only in the original receptacle.  
Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**  
Store away from water.  
Store away from oxidizing agents.  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Store receptacle in a well ventilated area.  
Protect from humidity and water.  
Store in a cool place.  
Store in dry conditions.  
Keep container tightly sealed.
- **Maximum storage temperature:** < 50 °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:**

**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

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Do not eat, drink, smoke or sniff while working.  
Use skin protection cream for skin protection.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
Use suitable respiratory protective device when high concentrations are present.  
Short term filter device:
- **Protection of hands:**



Protective gloves

- **Material of gloves**  
Butyl rubber

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Chloroprene rubber

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 through 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:** Strong material gloves

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Use protective suit.

## 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>	Yellowish
· <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>	> 300 °C

· **Flash point:** > 200 °C (DIN 53213)

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

· **Ignition temperature:** 400 °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>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure At 20 °C:** 0.0 hPa

· **Density At 20 °C:** 1.12 g/cm<sup>3</sup> (DIN 51757)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

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- **Viscosity:**
  - Dynamic At 20 °C:* 400 mPas
  - Kinematic:* Not determined.
- **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
  - Toxic fumes may be released if heated above the decomposition point.
  - Danger of polymerization.
  - Reacts with water.
  - Reacts with alcohols, amines, aqueous acids and alkalis.
- **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 monoxide

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

- **Acute toxicity:**

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

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

Oral	LD50	>2000 mg/kg (RAT)
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**32055-14-4 Formaldehyde, oligomeric reaction products with aniline and phosgene**

Oral	LD50	> 10000 mg/kg (RAT) (OECD 401)
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Dermal	LD50	> 9400 mg/kg (RABBIT) (OECD 402)
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**2530-83-8 3-Glycidyoxypropyltrimethoxysilan**

Oral	LD50	8030 mg/kg (RAT)
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Dermal	LD50	4248 mg/kg (RABBIT)
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	LC50/96 h	55 mg/l (CYPRINUS CARPIO)
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- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:**

Sensitizing effect through inhalation is possible by prolonged exposure.

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

**Trade name: DINITROL 840 Skimfix "Rapide" Härter (Isocyanat)**

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## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There is no data available for the product.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** There is no data available for the product.
- **Additional ecological information:**
- **General notes:**  
At present there are no ecotoxicological assessments.  
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.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Dispose of as dangerous waste.  
Dispose of in accordance with Local Authority requirements  
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 05 00	wastes not otherwise specified in 08
08 05 01*	waste isocyanates
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
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 02	plastic packaging

- **Uncleaned packaging:**
- **Recommendation:**  
Non contaminated packagings may be recycled.  
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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**Trade name: DINITROL 840 Skimfix "Rapide" Härter (Isocyanat)**

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### SECTION 14: Transport information

- |   |                 |
|---|-----------------|
| · <b>14.1 UN-Number</b><br>· <b>ADR, ADN, IMDG, IATA</b>                                    | Void            |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, ADN, IMDG, IATA</b>                      | Void            |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | Void            |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                     | Void            |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>                          | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>       | Not applicable. |

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The product has been marked in accordance with EU Directives / respective national laws.  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.  
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.
- **Code letter and hazard designation of product:**  
Xn Harmful
- **Hazard-determining components of labelling:**  
Diphenylmethanediisocyanate, isomeres and homologues  
Formaldehyde, oligomeric reaction products with aniline and phosgene
- **Risk phrases:**  
20 Harmful by inhalation.  
36/37/38 Irritating to eyes, respiratory system and skin.  
40 Limited evidence of a carcinogenic effect.  
42/43 May cause sensitisation by inhalation and skin contact.  
48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- **Safety phrases:**  
9 Keep container in a well-ventilated place.  
23 Do not breathe vapour/spray.  
24/25 Avoid contact with skin and eyes.  
36/37 Wear suitable protective clothing and 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.
- **Special labelling of certain preparations:**  
Contains isocyanates. See information supplied by the manufacturer

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**Trade name: DINITROL 840 Skimfix "Rapide" Härter (Isocyanat)**

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· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
I	45.0

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

· **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.

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.

R41 Risk of serious damage to eyes.

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:** Research & Development

· **Contact:** Kontakt: msds@dinol.com oder Tel.: 0049 (0)5281 982 980

· **\* Data compared to the previous version altered.**