

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

- **1.1 Product identifier**
- **Trade name: Dinitrol 77B**
- **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** Anticorrosion additive
- **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 Regulation (EC) No 1272/2008**



GHS02

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

- **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**



GHS02 GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
Naphtha (petroleum), hydrotreated heavy
- **Hazard statements**
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

(Contd. on page 2)

Trade name: Dinitrol 77B

(Contd. of page 1)

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

The petroleum naphtha / petroleum distillate / lubricating oil meet the requirements for not being classified as carcinogenic (<0,1% benzene alt<3% (w/w) DMSO extract (IP 346)).

Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

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

Dangerous components:

CAS: 64742-48-9 EC number: 919-857-5 Reg.nr.: 01-2119463258-33	Naphtha (petroleum), hydrotreated heavy ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336	25-<50%
CAS: 25307-17-9 EINECS: 246-807-3 Reg.nr.: 01-2119510876-35	Bis(2-hydroxyethyl) oleylamine ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4 H302	<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:** 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.

· **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:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:** Mount respiratory protective device.

· **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** 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).

Ensure adequate ventilation.

(Contd. on page 3)

Trade name: Dinitrol 77B

(Contd. of page 2)

- **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**
Ensure good ventilation/exhaustion at the workplace.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **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:** Keep container tightly sealed.
- **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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**

64742-48-9 Naphtha (petroleum), hydrotreated heavy

Oral	Long-term - systemic effects, general population	125 mg/kg bw/day (General Population)
Dermal	Long-term - systemic effects, general population	125 mg/kg bw/day (General population)
	Long-term - systemic effects, worker	208 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, general population	185 mg/m ³ (General Population)
	Long-term - systemic effects, worker	871 mg/m ³ (Worker)

25307-17-9 Bis(2-hydroxyethyl) oleylamine

Oral	Long-term - systemic effects, general population	0.179 mg/kg bw/day (General Population)
Dermal	Long-term - systemic effects, general population	0.179 mg/kg bw/day (General population)
	Long-term - systemic effects, worker	0.25 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, general population	0.621 mg/m ³ (General Population)
	Long-term - systemic effects, worker	1.76 mg/m ³ (Worker)

· **PNECs**

25307-17-9 Bis(2-hydroxyethyl) oleylamine

Aquatic compartment - freshwater	0.000214 mg/L (not specified)
Aquatic compartment - marine water	0.000021 mg/L (not specified)
Aquatic compartment - sediment in freshwater	1.692 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	0.1692 mg/kg sed dw (not specified)
Sewage treatment plant	1.5 mg/L (not specified)
Terrestrial compartment - soil	5 mg/kg dw (not specified)

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

(Contd. on page 4)

Trade name: Dinitrol 77B

(Contd. of page 3)

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:** Filter A/P2

· **Protection of hands:** Not required.

· **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.

Nitrile rubber

Recommended thickness of the material: $\geq 0,12$ mm

· **Penetration time of glove material**

> 480 min.

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

· **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Light brown
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	130 °C

· **Flash point:** 29 °C (DIN 53213)

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

· **Ignition temperature:** > 200 °C

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower:	0.6 Vol %
Upper:	7.0 Vol %

· **Vapour pressure At 20 °C:** 3 hPa

· **Density At 20 °C:** 0.86 g/cm³ (DIN 51757)

· **Relative density** Not determined.

(Contd. on page 5)

Trade name: Dinitrol 77B

(Contd. of page 4)

· 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.
· Viscosity:	
Dynamic:	Not determined.
Kinematic At 20 °C:	90 s (DIN 53211/4)
· Solvent content:	
Organic solvents:	38.9 %
Solids content:	60.2 % (DIN 53216)
· 9.2 Other information	No further relevant information available.
· VOC (EU):	38.90 %
· VOC (EU):	334.6 g/l
· VOCV:	38.90 %

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.
- **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:**

64742-48-9 Naphtha (petroleum), hydrotreated heavy

Oral	LD50	> 5000 mg/kg (RAT)
Dermal	LD50	> 5000 mg/kg (RABBIT)
Inhalative	LC50/4 h	> 4951 mg/l (RAT)

25307-17-9 Bis(2-hydroxyethyl) oleylamine

Oral	LD50	> 300-2000 mg/kg (RAT)
	LC50/96 h	> 0.1-1 mg/l (Fish)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Prolonged or repeated contact with skin may cause slight irritation and/or reddening.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:** No further relevant information available.
- **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**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

(Contd. on page 6)

Trade name: Dinitrol 77B

(Contd. of page 5)

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

25307-17-9 Bis(2-hydroxyethyl) oleylamine

EC50/48 h >0.1-1 mg/l (DAPHNIA MAGNA)

EC50/72 h >0.01-0.1 mg/l (SELENASTRUM CAPRICORNUTUM)

· **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 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.

· **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**

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

Dispose of as dangerous waste.

· **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
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08 01 00	wastes from MFSU and removal of paint and varnish
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08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
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· **Uncleaned packaging:**

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

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1139

· **14.2 UN proper shipping name**

· **ADR**

1139 COATING SOLUTION, special provision 640E

· **IMDG, IATA**

COATING SOLUTION

(Contd. on page 7)

Trade name: Dinitrol 77B

(Contd. of page 6)

· **14.3 Transport hazard class(es)**

· ADR, IMDG, IATA



· **Class** 3 Flammable liquids.
· **Label** 3

· **14.4 Packing group**

· ADR, IMDG, IATA III

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Warning: Flammable liquids.
· **Danger code (Kemler):** 30
· **EMS Number:** F-E, S-E
· **Segregation groups** Alkalis

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
· **Transport category** 3
· **Tunnel restriction code** D/E

· **IMDG**

· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN1139, COATING SOLUTION, special provision 640E, 3, III

SECTION 15: Regulatory information

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

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

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

Naphtha (petroleum), hydrotreated heavy

· **Hazard statements**

H226 Flammable liquid and vapour.

(Contd. on page 8)

Trade name: Dinitrol 77B

(Contd. of page 7)

*H336 May cause drowsiness or dizziness.***Precautionary statements**

- P210 *Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
- P243 *Take precautionary measures against static discharge.*
- P280 *Wear protective gloves/protective clothing/eye protection.*
- P303+P361+P353 *IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*
- P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*
- P405 *Store locked up.*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

Directive 2012/18/EU

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P5c** FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

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

Class	Share in %
NK	38.9

- **Waterhazard class:** Water hazard class 2 (Self-assessment): 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

- H226 Flammable liquid and vapour.*
- H302 Harmful if swallowed.*
- H304 May be fatal if swallowed and enters airways.*
- H314 Causes severe skin burns and eye damage.*
- H336 May cause drowsiness or dizziness.*
- H400 Very toxic to aquatic life.*

Department issuing MSDS: Research & Development

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

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 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)*
- DNEL: Derived No-Effect Level (REACH)*
- PNEC: Predicted No-Effect Concentration (REACH)*
- LC50: Lethal concentration, 50 percent*
- LD50: Lethal dose, 50 percent*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Flam. Liq. 3: Flammable liquids, Hazard Category 3*
- Acute Tox. 4: Acute toxicity, Hazard Category 4*
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*
- Asp. Tox. 1: Aspiration hazard, Hazard Category 1*

(Contd. on page 9)



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

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Trade name: Dinitrol 77B*Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1*

(Contd. of page 8)

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

GB