

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

- **1.1 Product identifier**
- **Trade name: DINITROL 25B**
- **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**



GHS08

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.

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



Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.

R66: Repeated exposure may cause skin dryness or cracking.

- **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.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

- **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**



GHS07



GHS08

- **Signal word** Danger

(Contd. on page 2)

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Trade name: DINITROL 25B

(Contd. of page 1)

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

Naphtha (petroleum), hydrotreated heavy
2-butoxyethanol

· **Hazard statements**

H312 Harmful in contact with skin.
H304 May be fatal if swallowed and enters airways.

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P322 Specific measures (see on this label).
P405 Store locked up.
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**

· **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: 918-481-9 Reg.nr.: 01-2119457273-39	Naphtha (petroleum), hydrotreated heavy ☒ Xn R65 R66 ☒ Asp. Tox. 1, H304	50-<100%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol ☒ Xn R20/21/22; ☒ Xi R36/38 ☒ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	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**

· **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.

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

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

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

(Contd. on page 3)

Trade name: DINITROL 25B

(Contd. of page 2)

- **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**
Avoid contact with skin, eyes and clothes.
- **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).
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**
Ensure good ventilation/exhaustion at the workplace.
Use only in well ventilated areas.
- **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.
- **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:

111-76-2 2-butoxyethanol

WEL	Short-term value: 246 mg/m ³ , 50 ppm
	Long-term value: 123 mg/m ³ , 25 ppm
	Sk, BMGV

· DNELs

111-76-2 2-butoxyethanol

Oral	Acute - systemic effects, general population	13.4 mg/kg bw/day (General Population)
	Long-term - systemic effects, general population	3.2 mg/kg bw/day (General Population)
Dermal	Acute - systemic effects, general population	44.5 mg/kg (General population)
	Long-term - systemic effects, general population	38 mg/kg bw/day (General population)
Inhalative	Long-term - systemic effects, worker	75 mg/kg bw/day (Worker)
	Acute - Local effects, worker	246 mg/m ³ (Worker)
	Acute - local effects, general population	123 mg/m ³ (General Population)
	Acute - systemic effects, general population	633 mg/m ³ (General Population)
	Acute - systemic effects, worker	633 mg/m ³ (Worker)

(Contd. on page 4)

Trade name: DINITROL 25B

(Contd. of page 3)

Long-term - systemic effects, general population	49 mg/m ³ (General Population)
Long-term - systemic effects, worker	98 mg/m ³ (Worker)

· **PNECs**

111-76-2 2-butoxyethanol

Aquatic compartment - freshwater	8.8 mg/L (not specified)
Aquatic compartment - marine water	0.88 mg/L (not specified)
Aquatic compartment - sediment in freshwater	8.14 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	3.46 mg/kg sed dw (not specified)
Sewage treatment plant	463 mg/L (not specified)
Terrestrial compartment - soil	2.8 mg/kg dw (not specified)

· **Ingredients with biological limit values:**

111-76-2 2-butoxyethanol

BMGV	240 mmol/mol creatinine
Medium:	urine
Sampling time:	post shift
Parameter:	butoxyacetic acid

· **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.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Short term filter device:



Filter AX

· **Protection of hands:**



Neoprene gloves (0,47 mm)

· **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: ≥ 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:** Goggles recommended during refilling

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(Contd. on page 5)

Trade name: DINITROL 25B

(Contd. of page 4)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Colour:	Transparent
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	179 °C

· Flash point: > 62 °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 does not present an explosion hazard.

· Explosion limits:

Lower:	0.7 Vol %
Upper:	6.0 Vol %

· Vapour pressure At 20 °C: 0.5 hPa

· Density At 20 °C: 0.82 g/cm³ (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.

· Viscosity:

Dynamic At 20 °C:	12 mPas
Kinematic:	Not determined.

· Solvent content:

Organic solvents: 75.0 %

Solids content: 25.0 % (DIN 53216)

· 9.2 Other information: No further relevant information available.

· VOC (EU): 75.03 %

· VOC (EU): 615.2 g/l

· VOCV: 75.03 %

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: No dangerous reactions known.

· 10.4 Conditions to avoid: No further relevant information available.

· 10.5 Incompatible materials: No further relevant information available.

(Contd. on page 6)

Trade name: **DINITROL 25B**

(Contd. of page 5)

· **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:**

ATE (Acute Toxicity Estimates)

Oral	LD50	23669 mg/kg (rat)
Dermal	LD50	435 mg/kg (RABBIT)
Inhalative	LC50/4 h	118 mg/l (RAT)

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

Oral	LD50	>5000 mg/kg (RAT)
Dermal	LD50	>5000 mg/kg (RABBIT)

111-76-2 2-butoxyethanol

Oral	LD50	>400 mg/kg (rat)
Dermal	LD50	2270 mg/kg (RAT)
Inhalative	LC50/4 h	>2 mg/l (RAT)
	LC50/24 h	1700 mg/l (Fish)

· **Primary irritant effect:**· **on the skin:** No irritant effect.· **on the eye:** No irritating effect.· **Sensitisation:** No sensitising effects known.· **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:

SECTION 12: Ecological information

· **12.1 Toxicity**· **Aquatic toxicity:**

111-76-2 2-butoxyethanol

EC50/ 24 h	>1500 mg/l (DAPHNIA MAGNA)
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· **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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(Contd. on page 7)

Trade name: DINITROL 25B

(Contd. of page 6)

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.

· *European waste catalogue*

<i>European waste catalogue</i>	
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 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances

- **Uncleaned packaging:**

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

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, ADN, IMDG, IATA	Void
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· 14.2 UN proper shipping name

· ADR, ADN, IMDG, IATA	Void
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· 14.3 Transport hazard class(es)

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· ADR, ADN, IMDG, IATA
· Class Void

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· 14.4 Packing group

· ADR, IMDG, IATA	<i>Void</i>
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· 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 MARPOL73/78 and the IBC Code

Not applicable.

- *UN "Model Regulation":*

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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**



GHS07 GHS08

• **Signal word** *Danger*

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

Naphtha (petroleum), hydrotreated heavy
2-butoxyethanol

(Contd. on page 8)

Trade name: DINITROL 25B

(Contd. of page 7)

· **Hazard statements**

H312 Harmful in contact with skin.
H304 May be fatal if swallowed and enters airways.

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P322 Specific measures (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
NK	75.0

- **Waterhazard class:** Water hazard class 1 (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**

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
.....
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.

· **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
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
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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