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

1.1. Product identifier

DINITROL 77B

UFI: 6CC1-J7E7-E60U-MNN7

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Anti-corrosive coating

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name:	DINOL GmbH
Street:	Pyrmonter Strasse 76
Place:	D-32676 Luegde
Telephone:	+ 49 (0) 5281 982980
Telefax:	+ 49 (0) 5281 9829860
E-mail:	msds@dinol.com
Contact person:	Labor
Responsible Department:	msds@dinol.com

Supplier

Company name:	Leading Solvent Supplies Limited
Street:	Marston Business Park, Rudgate
Place:	GB Tockwith, York YO26 7QF
E-mail:	enquiries@leading-solvents.co.uk
Internet:	www.leading-solvents.co.uk

1.4. Emergency telephone number:

Giftnotruf Berlin: +49 30 30686 700 (Beratung in Deutsch und Englisch)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 3; H226
STOT SE 3; H336
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Signal word: Warning

Pictograms:

Hazard statements

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P280	Wear protective gloves and eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking. Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning

Pictograms:

Hazard statements

H412

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			45 - < 50 %
	919-857-5		01-2119463258-33	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1; H226 H336 H304 EUH066			
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether			< 1 %
	203-905-0	603-014-00-0	01-2119475108-36	
	Acute Tox. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H331 H302 H315 H319			
25307-17-9	2,2'-(9-Octadecenylimino)bisethanol			< 1 %
	246-807-3		01-2119510876-35	
	Acute Tox. 4, Skin Corr. 1, Aquatic Chronic 1; H302 H314 H410			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
	919-857-5	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	45 - < 50 %
	inhalation: LC50 = > 5000 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg		
111-76-2	203-905-0	2-butoxyethanol; ethylene glycol monobutyl ether	< 1 %
	inhalation: ATE 3 mg/l (vapours); oral: ATE 1200 mg/kg		
25307-17-9	246-807-3	2,2'-(9-Octadecenylimino)bisethanol	< 1 %
	oral: LD50 = >300 - 2000 mg/kg Aquatic Chronic 1; H410: M=1		

Further Information

Hydrocarbons meet the requirements for not being classified as carcinogenic (<0,1% benzene alt<3% (w/w) DMSO extract (IP 346)).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice.
Never give anything by mouth to an unconscious person or a person with cramps.
If unconscious but breathing normally, place in recovery position and seek medical advice.

After inhalation

Remove casualty to fresh air and keep warm and at rest.

After contact with skin

Change contaminated clothing.
After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious).
Do NOT induce vomiting.
Call a physician immediately.
Put victim at rest, cover with a blanket and keep warm.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

No further relevant information available.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition.
Do not breathe gas/fumes/vapour/spray.
Avoid contact with skin, eyes and clothes.
Use personal protection equipment.

For emergency responders

For further specification, refer to section 8 of the SDS.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment

Prevent spread over a wide area (e.g. by containment or oil barriers).
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Provide adequate ventilation.
Clear contaminated areas thoroughly.
Do not rinse down with water.

Other information

No information available.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.
If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Advice on protection against fire and explosion

Do not allow uncontrolled discharge of product into the environment.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Not required.

Further information on storage conditions

Keep container tightly closed.

7.3. Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid (creatinine)	240 mmol/mol	urine	Post shift

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
Consumer DNEL, long-term		oral	systemic	125 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	208 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	125 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	871 mg/m³
Consumer DNEL, long-term		inhalation	systemic	185 mg/m³
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether			
Consumer DNEL, acute		oral	systemic	13,4 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	3,2 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	75 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	44,5 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	38 mg/kg bw/day
Worker DNEL, acute		inhalation	local	246 mg/m³
Worker DNEL, long-term		inhalation	systemic	98 mg/m³
Consumer DNEL, acute		inhalation	systemic	633 mg/m³
Worker DNEL, acute		inhalation	systemic	633 mg/m³
Consumer DNEL, acute		inhalation	local	123 mg/m³
Consumer DNEL, long-term		inhalation	systemic	49 mg/m³
25307-17-9	2,2'-(9-Octadecenylimino)bisethanol			
Consumer DNEL, long-term		oral	systemic	0,179 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,179 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	1,76 mg/m³
Consumer DNEL, long-term		inhalation	systemic	0,621 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value
25307-17-9	2,2'-(9-Octadecenylimino)bisethanol	
Freshwater		0,000214 mg/l
Marine water		0,000021 mg/l
Freshwater sediment		1,692 mg/kg
Marine sediment		0,1692 mg/kg
Micro-organisms in sewage treatment plants (STP)		1,5 mg/l

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation.
If handled uncovered, arrangements with local exhaust ventilation should be used if possible.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye glasses with side protection (DIN EN 166)

Hand protection

Tested protective gloves must be worn (EN ISO 374):
FKM (fluoro rubber) penetration time (maximum wearing period): 480 min.
NBR (Nitrile rubber) penetration time (maximum wearing period): 480 min.
Thickness of the glove material : > 0,12 mm
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Protective gloves have to be replaced at the first sign of deterioration.
Protect skin by using skin protective cream.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.
gas filtering equipment (EN 141)., Filter material/medium: A

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	light brown
Odour:	characteristic
Odour threshold:	not determined

		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	154-193 °C	
Flammability:	not determined	
Lower explosion limits:	0,7 vol. %	
Upper explosion limits:	6,0 vol. %	
Flash point:	36 °C	
Auto-ignition temperature:	> 200 °C	
Decomposition temperature:	not determined	
pH-Value:	The study does not need to be conducted because the substance is known to be insoluble in water.	
Viscosity / kinematic:	not determined	
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.	

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined	
Vapour pressure: (at 20 °C)	3 hPa	
Vapour pressure: (at 50 °C)	13 hPa	
Density (at 20 °C):	0,875 g/cm³	DIN 51757
Relative vapour density:	not determined	
Particle characteristics:	not applicable	

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is: not explosive.. In use, may form flammable/explosive vapour-air mixture.

Sustained combustibility:	No data available

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:	not determined	
Solvent separation test:	not determined	
Solvent content:	40,9 %	
Solid content:	58,2 %	
Softening point:	not determined	
Viscosity / dynamic:	not determined	
Flow time: (at 20 °C)	65 4	DIN 53211

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon monoxide

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix tested

	Dose	Species	Source

LC50, inhalation (vapour) (4 h) > 375 mg/l

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 > 5000 mg/l	Rat		
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether				
	oral	ATE 1200 mg/kg			
	inhalation vapour	ATE 3 mg/l			
25307-17-9	2,2'-(9-Octadecenylimino)bisethanol				
	oral	LD50 >300 - 2000 mg/kg	Rat		

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.
Repeated exposure may cause skin dryness or cracking.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects 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. (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No information available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

No information available.

Practical experience

No information available.

11.2. Information on other hazards

Endocrine disrupting properties

Endocrine disrupting potential No information available.

Further information

There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether					
	Acute fish toxicity	LC50 1490 mg/l	96 h	Lepomis macrochirus		

12.2. Persistence and degradability

There are no data available on the mixture itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
		80%		
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether	0,81 (25°C)

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

There are no data available on the preparation/mixture itself.

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Do not mix with other wastes.

List of proposed waste codes/waste designations in accordance with EWC:

List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Remove according to the regulations.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1139
14.2. UN proper shipping name:	COATING SOLUTION
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1139
14.2. UN proper shipping name:	Coating solution
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1139
14.2. UN proper shipping name:	COATING SOLUTION
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Marine pollutant:	no
Special Provisions:	955
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1139

14.2. UN proper shipping name:	COATING SOLUTION
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Special Provisions:	A3
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning : Flammable liquids

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

Tansport classification ADR/IMGD is based on packaging >30ltr(IMDG), <450ltr(ADR).
For other packaging untis different classification can apply.

Hazchem code: •3Y

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Directive 2004/42/EC on VOC in paints and varnishes:	40,89 % 357,8 g/l
Information according to Directive 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

Additional information

Observe in addition any national regulations!
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	3 - highly hazardous to water

Additional information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

602286

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,8,9,15,16.

Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Skin Corr: Skin corrosion
Eye Irrit: Eye irritation
STOT SE: Specific target organ toxicity - single exposure
Aquatic Chronic: Chronic aquatic hazard
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 Harmonized 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
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
STOT SE 3; H336	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

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.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

This safety data sheet complies with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)