

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 1 of 12

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

#### 1.1. Product identifier

DINITROL 520

UFI: X64X-Q0YS-W00H-PPVQ

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

##### Use of the substance/mixture

Adhesion promoter

##### Uses advised against

No further relevant information available.

#### 1.3. Details of the supplier of the safety data sheet

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	

#### 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. 2; H225  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

##### GB CLP Regulation

##### Hazard components for labelling

3-trimethoxysilylpropane-1-thiol  
3-aminopropyltriethoxysilane

Signal word: Danger

##### Pictograms:



##### Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

##### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 2 of 12

- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P403+P235 Store in a well-ventilated place. Keep cool.

### Special labelling of certain mixtures

Restricted to professional users.

### Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



### Hazard statements

H317

### Precautionary statements

P280

### 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)			
64-17-5	ethanol; ethyl alcohol			85 - < 90 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2; H225			
67-63-0	isopropanol (isopropyl alcohol)			5 - < 10 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
4420-74-0	3-trimethoxysilylpropane-1-thiol			1 - < 5 %
	224-588-5		01-2120763539-41	
	Acute Tox. 4, Skin Sens. 1B, Aquatic Chronic 2; H302 H317 H411			
919-30-2	3-aminopropyltriethoxysilane			1 - < 5 %
	213-048-4	612-108-00-0	01-2119480479-24	
	Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1; H302 H314 H317			

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

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 3 of 12

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
64-17-5	200-578-6	ethanol; ethyl alcohol	85 - < 90 %
		inhalation: LC50 = 20000 mg/l (vapours); oral: LD50 = 7060 mg/kg	
67-63-0	200-661-7	isopropanol (isopropyl alcohol)	5 - < 10 %
		inhalation: LC50 = 30 mg/l (vapours); dermal: LD50 = 13400 mg/kg; oral: LD50 = 4570 mg/kg	
4420-74-0	224-588-5	3-trimethoxysilylpropane-1-thiol	1 - < 5 %
		dermal: LD50 = 2268 mg/kg; oral: LD50 = 774 mg/kg	
919-30-2	213-048-4	3-aminopropyltriethoxysilane	1 - < 5 %
		dermal: LD50 = 3800 mg/kg; oral: LD50 = 1780 mg/kg	

### Further Information

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

## 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

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Extinguishing powder. Water fog.

#### Unsuitable extinguishing media

High power water jet.

### 5.2. Special hazards arising from the substance or mixture

No further relevant information available.

### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet.

**Safety Data Sheet**

according to UK REACH Regulation

**DINITROL 520**

Revision date: 12.12.2023

Product code: 10520

Page 4 of 12

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**

- Provide adequate ventilation.
- Wear personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Avoid breathing dust/fume/gas/mist/vapours/spray.

**For emergency responders**

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

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**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**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

**Advice on general occupational hygiene**

- The usual precautionary measures are to be adhered to when handling chemicals.
- Keep away from food, drink and animal feedingstuffs. 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 in a cool, well-ventilated place.

**Hints on joint storage**

Not required.

**Further information on storage conditions**

Keep container tightly closed in a cool, well-ventilated place.

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 5 of 12

maximum storage temperature : < 40°C

minimum storage temperature : > 4 °C

storage temperature : 4 - 40 °C

### 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/m <sup>3</sup>	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
67-63-0	isopropanol (isopropyl alcohol)			
Consumer DNEL, long-term		inhalation	systemic	89 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	319 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	26 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	888 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	500 mg/m <sup>3</sup>

#### PNEC values

CAS No	Substance	Value
67-63-0	isopropanol (isopropyl alcohol)	
Freshwater		140,9 mg/l
Marine water		140,9 mg/l
Freshwater sediment		552 mg/kg
Marine sediment		552 mg/kg
Secondary poisoning		160 mg/kg
Micro-organisms in sewage treatment plants (STP)		2251 mg/l
Soil		28 mg/kg

### 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.

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 6 of 12

### 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.

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:	colourless
Odour:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	78 °C
Flammability:	not applicable
Lower explosion limits:	3,5 vol. %
Upper explosion limits:	15 vol. %
Flash point:	12 °C
Auto-ignition temperature:	425 °C
Decomposition temperature:	not applicable
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility:	not determined
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	59 hPa
(at 20 °C)	
Density (at 20 °C):	0,8 g/cm³
Relative vapour density:	not determined
Particle characteristics:	not applicable

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties

not determined

Oxidizing properties

not determined

#### Other safety characteristics

Solvent content: 96,5 %

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 7 of 12

Softening point:

not determined

Viscosity / dynamic:

not determined

### 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

No known hazardous decomposition products.

## 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
LD50, oral	30.111 mg/kg	Rat	

#### ATEmix calculated

ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 8 of 12

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol; ethyl alcohol				
	oral	LD50 mg/kg 7060	Rat	IUCLID	
	inhalation (4 h) vapour	LC50 mg/l 20000	Rat	RTECS	
67-63-0	isopropanol (isopropyl alcohol)				
	oral	LD50 mg/kg 4570	Rat		
	dermal	LD50 mg/kg 13400	Rabbit		
	inhalation (4 h) vapour	LC50 30 mg/l	Rat		
4420-74-0	3-trimethoxysilylpropane-1-thiol				
	oral	LD50 mg/kg 774	Rat		
	dermal	LD50 mg/kg 2268	Rat		
919-30-2	3-aminopropyltriethoxysilane				
	oral	LD50 mg/kg 1780	Rat	RTECS	
	dermal	LD50 mg/kg 3800	Rabbit	RTECS	

### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

### Sensitising effects

May cause an allergic skin reaction. (3-trimethoxysilylpropane-1-thiol; 3-aminopropyltriethoxysilane)

### Carcinogenic/mutagenic/toxic effects for reproduction

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

### STOT-single exposure

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

### 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.



# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 9 of 12

### Further information

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

## SECTION 12: Ecological information

### 12.1. Toxicity

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64-17-5	ethanol; ethyl alcohol					
	Acute fish toxicity	LC50 13000 mg/l	96 h	fish		
	Acute algae toxicity	ErC50 5000 mg/l	72 h	alga		
	Acute crustacea toxicity	EC50 9300 mg/l	48 h	Daphnia magna	IUCLID	
4420-74-0	3-trimethoxysilylpropane-1-thiol					
	Acute algae toxicity	ErC50 267 mg/l	72 h			
	Acute crustacea toxicity	EC50 6,7 mg/l	48 h			
	Algae toxicity	NOEC 40 mg/l	72 d			
919-30-2	3-aminopropyltriethoxysilane					
	Acute algae toxicity	ErC50 603 mg/l	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 331 mg/l	48 h	Daphnia magna		

### 12.2. Persistence and degradability

No further relevant information available.

### 12.3. Bioaccumulative potential

No further relevant information available.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol; ethyl alcohol	-0,31
67-63-0	isopropanol (isopropyl alcohol)	0,05
919-30-2	3-aminopropyltriethoxysilane	0,31

### 12.4. Mobility in soil

No further relevant information available.

### 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 further relevant information available.

### Further information

No further relevant information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 10 of 12

### Disposal recommendations

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

### Contaminated packaging

Dispose according to legislation.

## SECTION 14: Transport information

### Land transport (ADR/RID)

#### 14.1. UN number or ID number:

UN 1993

#### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))

#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

II

Hazard label:

3



Classification code:

F1

Special Provisions:

274 601 640D

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

Hazard No:

33

Tunnel restriction code:

D/E

### Inland waterways transport (ADN)

#### 14.1. UN number or ID number:

UN 1993

#### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))

#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

II

Hazard label:

3



Classification code:

F1

Limited quantity:

1 L

Excepted quantity:

E2

### Marine transport (IMDG)

#### 14.1. UN number or ID number:

UN 1993

#### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYLALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))

#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

II

Hazard label:

3



Marine pollutant:

no

Limited quantity:

1 L

Excepted quantity:

E2

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 11 of 12

EmS: F-E, S-E

### Air transport (ICAO-TI/IATA-DGR)

#### 14.1. UN number or ID number:

UN 1993

#### 14.2. UN proper shipping name:

FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYLALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))

#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

II

Hazard label:

3



Special Provisions:

A3

Limited quantity Passenger:

1 L

Passenger LQ:

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger:

353

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

364

IATA-max. quantity - Cargo:

60 L

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

### 14.6. Special precautions for user

Warning : Flammable liquids

## 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:

96,52 %

772,1 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):

1 - slightly 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

### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

# Safety Data Sheet

according to UK REACH Regulation

## DINITROL 520

Revision date: 12.12.2023

Product code: 10520

Page 12 of 12

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 2,11.

#### Abbreviations and acronyms

Flam. Liq: Flammable liquids  
 Acute Tox: Acute toxicity  
 Skin Corr: Skin corrosion  
 Skin Irrit: Skin irritation  
 Eye Irrit: Eye irritation  
 Skin Sens: Skin sensitisation  
 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. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method

#### Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

#### 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.

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