

Safety Data Sheet

according to 29 CFR 1910.1200(g)

DINITROL Direct

Revision date: 08/17/2021

Product code: 10703

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1. Identification**Product identifier**

DINITROL Direct

Recommended use of the chemical and restrictions on use**Use of the substance/mixture**

Adhesives, sealants

Uses advised against

No further relevant information available.

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:	DINOL U.S. Inc.	
Street:	8500 Cotter Street, Lewis Center	
Place:	USA-43035 Ohio	
Telephone:	740-548-1656	Telefax: 740-548-1657
e-mail:	info@dinolus.com	
Internet:	www.dinol.com	

Emergency phone number: 3E Company Emergency +1-866-404-4230**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Respiratory or skin sensitization: Resp. Sens. 1

Respiratory or skin sensitization: Skin Sens. 1

Carcinogenicity: Carc. 2

Label elements**29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

May cause an allergic skin reaction

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Suspected of causing cancer

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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Avoid breathing dust/fume/gas/mist/vapors/spray.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wear respiratory protection.
 Specific treatment (see on this label).
 If on skin: Wash with plenty of water.
 Wash contaminated clothing before reuse.
 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 If experiencing respiratory symptoms: Call a poison center/doctor.
 If exposed or concerned: Get medical advice/attention.
 Store locked up.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
1333-86-4	Carbon Black	24.9 %
28182-81-2	Hexamethylene diisocyanate, oligomers	4.9 %
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	0.9 %
107-66-4	Dibutyl hydrogen phosphate	0.1 %

4. First-aid measures

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.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No information available.

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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO₂), Extinguishing powder. Water fog.

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

No further relevant information available.

Special protective equipment and precautions for fire-fighters

No further relevant information available.

Additional information

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

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

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/vapors/spray.

For emergency responders

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

Environmental precautions

Do not allow to enter into surface water or drains.

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.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Do not breathe gas/vapour/aerosol.

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Advice on protection against fire and explosion

No further relevant information available.

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.

Further information on handling

No further relevant information available.

Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels

No further relevant information available.

Hints on joint storage

Not required.

Further information on storage conditions

maximum storage temperature : < 35°C

minimum storage temperature : > 0°C

storage temperature: : 0 - 35 °C

8. Exposure controls/personal protection
Control parameters
Exposure limits

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
1333-86-4	Carbon black (in presence of polycyclic aromatic hydrocarbons (PAHs)) (as PAHs)	-	0.1		TWA (8 h)	REL
1333-86-4	Carbon black	-	3.5		TWA (8 h)	PEL
107-66-4	Dibutyl phosphate	1	5		TWA (8 h)	PEL
		1	5		TWA (8 h)	REL
		2	10		STEL (15 min)	REL
101-68-8	Methylene bisphenyl isocyanate (MDI)	C 0.02	C 0.2		Ceiling	PEL
101-68-8	Methylene bisphenyl isocyanate	0.005	0.05		TWA (8 h)	REL
		C 0.02	C 0.2		Ceiling	REL
7631-86-9	Silica, amorphous	-	6		TWA (8 h)	REL

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)

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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.

In case of inadequate ventilation wear respiratory protection. gas filtering equipment (EN 141),. Filter material/medium: A/P2

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Paste
Color:	black
Odor:	characteristic
Odour threshold:	not determined

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	270 °C
Softening point:	not determined
Flash point:	164 °C

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

Explosive properties

not determined

Lower explosion limits:	0,4 vol. %
Upper explosion limits:	2,9 vol. %
Auto-ignition temperature:	> 300 °C
Decomposition temperature:	not applicable
pH-Value:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Water solubility:	Immiscible
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapor pressure:	not determined
Density (at 20 °C):	1,2 g/cm ³
Relative vapour density:	not determined

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Particle characteristics: not applicable

Other information**Information with regard to physical hazard classes**

Sustaining combustion: No data available

Oxidizing properties
not determined**Other safety characteristics****Further Information**

No information available.

10. Stability and reactivity**Reactivity**

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

Conditions to avoid

No further relevant information available.

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information**Information on toxicological effects****Acute toxicity**

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

ATEmix tested

	Dose	Species	Source
LC50, inhalation (vapor) (4 h)	932 mg/l		

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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
1333-86-4	Carbon Black				
	oral	LD50 > 15400 mg/kg	Rat	GESTIS	
	dermal	LD50 > 3000 mg/kg	Rabbit	GESTIS	
28182-81-2	Hexamethylene diisocyanate, oligomers				
	oral	LD50 >5000 mg/kg	Rat		
	inhalation (4 h) vapour	LC50 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate				
	oral	LD50 9200 mg/kg	Rat	GESTIS	
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			

Irritation and corrosivity

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

Sensitizing effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

May cause an allergic skin reaction (Hexamethylene diisocyanate, oligomers; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer (Carbon Black; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; Dibutyl hydrogen phosphate)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (IARC): Carbon black (CAS 1333-86-4) is listed in group 2B. Silica, amorphous (CAS 7631-86-9) is listed in group 3. 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8) is listed in group 3.

Aspiration hazard

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

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.

12. Ecological information
Ecotoxicity

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There are no data available on the mixture itself.

Persistence and degradability

There are no data available on the mixture itself.

Bioaccumulative potential

There are no data available on the mixture itself.

Mobility in soil

There are no data available on the mixture itself.

Endocrine disrupting properties

There are no data available on the mixture itself.

Other adverse effects

No information available.

Further information

There are no data available on the mixture itself.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Do not mix with other wastes.

RCRA Hazardous wastes (Resource Conservation and Recovery Act)

None

Contaminated packaging

Dispose according to legislation.

14. Transport information

US DOT 49 CFR 172.101

Proper shipping name:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

UN number or ID number:

No dangerous good in sense of this transport regulation.

UN proper shipping name:

No dangerous good in sense of this transport regulation.

Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Packing group:

Marine pollutant:

No dangerous good in sense of this transport regulation.

no

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:

No dangerous good in sense of this transport regulation.

UN proper shipping name:

No dangerous good in sense of this transport regulation.

Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Packing group:

No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

Special precautions for user

not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

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15. Regulatory information

U.S. Regulations

National Inventory TSCA

Substance/product listed in the following inventories: TSCA

National regulatory information

SARA Section 304 CERCLA:

Methylenebis(phenylisocyanate)(MDI) (101-68-8): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Carbon Black (1333-86-4): Delayed (chronic) health hazard

Hexamethylene diisocyanate, oligomers (28182-81-2): Immediate (acute) health hazard

Methylenebis(phenylisocyanate)(MDI) (101-68-8): Delayed (chronic) health hazard, Immediate (acute) health hazard

Dibutyl hydrogen phosphate (107-66-4): Delayed (chronic) health hazard, Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Methylenebis(phenylisocyanate)(MDI) (101-68-8): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Methylenebis(phenylisocyanate)(MDI) (101-68-8)

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

WARNING: This product can expose you to chemicals including Carbon black (airborne, unbound particles of respirable size) (cancer), which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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/none

16. Other information

Hazardous Materials Information Label (HMIS)

Health: 0

Flammability: 1

Physical Hazard: 0

NFPA Hazard Ratings

Health: 0

Flammability: 1

Reactivity: 0

Unique Hazard: none



Changes

Revision date: 17.08.2021

Revision No: 1,1

This data sheet contains changes from the previous version in section(s): 2,9,12,15.

Abbreviations and acronyms

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

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LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Other data

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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)