

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**DINITROL 512 A**

Revision date: 11/13/2025

Product code: 10512

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**1. Identification**
**Product identifier**

DINITROL 512 A

**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	
Internet:	www.dinol.com	
Responsible Department:	msds@dinol.com	

**Supplier**

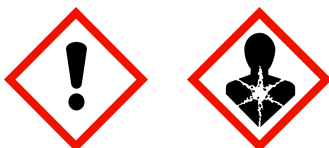
Company name:	DINOL U.S. Inc.	
Street:	8500 Cotter Street, Lewis Center	
Place:	USA-43035 Ohio	
Telephone:	740-548-1656	Telefax: 740-548-1657
E-mail:	info@dinolus.com	
Internet:	www.dinol.com	

**Emergency phone number:** 3E Company Emergency +1-866-404-4230

**2. Hazard(s) identification**
**Classification of the chemical**
**29 CFR Part 1910.1200**

Carcinogenicity: Carc. 2  
 Serious eye damage/eye irritation: Eye Irrit. 2A  
 Respiratory or skin sensitization: Skin Sens. 1

**Label elements**
**29 CFR Part 1910.1200**
**Signal word:** Warning

**Pictograms:**

**Hazard statements**

May cause an allergic skin reaction  
 Causes serious eye irritation  
 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.  
 Wash hands thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin: Wash with plenty of water.  
 Wash contaminated clothing before reuse.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 If exposed or concerned: Get medical advice/attention.  
 Store locked up.

#### Hazards not otherwise classified

No information available.

### 3. Composition/information on ingredients

#### Mixtures

##### Relevant ingredients

CAS No	Components	Quantity
127821-00-5	Aromatic polyisocyanate prepolymer	62.5 %
53317-61-6	aromatic poly-isocyanate	15.6 %
1333-86-4	Carbon Black	15.6 %
141-78-6	ethyl acetate	3.1 %
28182-81-2	Hexamethylene diisocyanate, oligomers	3.1 %

#### Further Information

Full text of H statements: see section 16.

### 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

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No further relevant information available.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Extinguishing powder. Water fog.  
Co-ordinate fire-fighting measures to the fire surroundings.

**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 special measures are necessary.

**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 uncontrolled discharge of product into the environment.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**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**

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**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**

No special measures are necessary.

**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.

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

No special measures are necessary.

**Hints on joint storage**

Not required.

**Further information on storage conditions**

storage temperature: 0 - 35 °C

maximum storage temperature < 35°C

minimum storage temperature < 0 °C

**8. Exposure controls/personal protection**
**Control parameters**
**Exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	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 (inhalable fraction)	-	3	TWA (8 h)	ACGIH-2024
1333-86-4	Carbon black	-	3.5	TWA (8 h)	PEL
141-78-6	Ethyl acetate	400	1400	TWA (8 h)	PEL
		400	1400	TWA (8 h)	REL
		400	1440	TWA (8 h)	ACGIH-2024

**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):

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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.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:	Paste	
Color:	black	
Odor:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		248 °C
Flammability:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		200 °C
Auto-ignition temperature:		> 300 °C
Decomposition temperature:		not determined
pH-Value:		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):		1,12 g/cm <sup>3</sup>
Relative vapour density:		not determined
Particle characteristics:		not applicable

### Other information

#### Information with regard to physical hazard classes

Explosive properties

The product is: not explosive

Sustained combustibility:

No data available

Oxidizing properties

not determined

#### Other safety characteristics

Solvent content:

4,0 %

Softening point:

not determined

Viscosity / dynamic:

not determined

#### Further Information

No further relevant information available.

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**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 further relevant information available.

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information**
**Route(s) of Entry**

No information available.

**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)	367 mg/l		

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 5000 mg/kg; ATE (inhalation dust/mist) &gt; 12,5 mg/l

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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
53317-61-6	aromatic poly-isocyanate				
	oral	LD50 >5000 mg/kg	Rat		
1333-86-4	Carbon Black				
	oral	LD50 > 15400 mg/kg	Rat	GESTIS	
	dermal	LD50 > 3000 mg/kg	Rabbit	GESTIS	
141-78-6	ethyl acetate				
	oral	LD50 5620 mg/kg	Rat		
	dermal	LD50 >20000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 50 mg/l	Rat		
28182-81-2	Hexamethylene diisocyanate, oligomers				
	oral	LD50 > 5000 mg/kg	Rat		
	inhalation (4 h) vapour	LC50 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

Serious eye damage/eye irritation: Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitizing effects**

May cause an allergic skin reaction (Aromatic polyisocyanate prepolymer; aromatic poly-isocyanate; Hexamethylene diisocyanate, oligomers)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing cancer (Carbon Black)

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.

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

No information available.

**Additional information on tests**

No information available.

**Practical experience**

No information available.

**Information on other hazards**
**Endocrine disrupting properties**

Endocrine disrupting potential No information available.

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**Further information**

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

**12. Ecological information**
**Ecotoxicity**

CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
53317-61-6	aromatic poly-isocyanate					
	Acute bacteria toxicity	EC50 mg/l ( )	>10000		Activated sludge	
1333-86-4	Carbon Black					
	Acute fish toxicity	LC50 mg/l	> 1000	96 h	Danio rerio (zebrafish)	
	Algae toxicity	NOEC mg/l	10000	3 d	Scenedesmus subspicatus	
141-78-6	ethyl acetate					
	Acute fish toxicity	LC50	230 mg/l	96 h	Pimephales promelas (fathead minnow)	
	Acute algae toxicity	ErC50 mg/l	3300		Desmodesmus subspicatus	48 h
	Acute crustacea toxicity	EC50	717 mg/l	48 h	Daphnia magna (Big water flea)	
	Acute bacteria toxicity	EC50 mg/l ( )	2900		Pseudomonas putida	16 h

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Components	Log Pow
141-78-6	ethyl acetate	0,73

**Mobility in soil**

There are no data available on the mixture itself.

**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.

**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. Do not allow to enter into surface water or drains.

**Contaminated packaging**

Dispose according to legislation.

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**14. Transport information**
**U.S. DOT 49 CFR 172.101**

**UN number or ID number:** UN 3077  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.  
**Transport hazard class(es):** 9  
**Packing group:** III  
 Hazard label: 9


**Marine transport (IMDG)**

**UN number or ID number:** UN 3077  
**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ALKYLSULFONIC ACID ESTER OF PHENOL)  
**Transport hazard class(es):** 9  
**Packing group:** III  
 Hazard label: 9



Marine pollutant: yes  
 Special Provisions: 274, 335, 966, 967, 969  
 Limited quantity: 5 kg  
 Excepted quantity: E1  
 EmS: F-A, S-F

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

**UN number or ID number:** UN 3077  
**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ALKYLSULFONIC ACID ESTER OF PHENOL)  
**Transport hazard class(es):** 9  
**Packing group:** III  
 Hazard label: 9



Special Provisions: A97 A158 A179 A197  
 Limited quantity Passenger: 30 kg G  
 Passenger LQ: Y956  
 Excepted quantity: E1  
 IATA-packing instructions - Passenger: 956  
 IATA-max. quantity - Passenger: 400 kg  
 IATA-packing instructions - Cargo: 956  
 IATA-max. quantity - Cargo: 400 kg

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ALKYLSULFONIC ACID ESTER OF PHENOL)

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**Special precautions for user**

Warning

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

not applicable

**15. Regulatory information**
**U.S. Regulations**
**National Inventory TSCA**

All components of the product are publicly listed or excluded.

**National regulatory information**

SARA Section 304 CERCLA:

Ethyl acetate (141-78-6): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Aromatic polyisocyanate prepolymer (127821-00-5): Immediate (acute) health hazard

aromatic poly-isocyanate (53317-61-6): Immediate (acute) health hazard

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

Ethyl acetate (141-78-6): Fire hazard, Immediate (acute) health hazard

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

**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](http://www.P65Warnings.ca.gov).

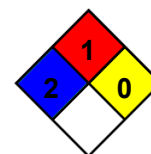
This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

**16. Other information**
**Hazardous Materials Identification System (HMIS)**

Health:	2
Flammability:	1
Physical Hazard:	0

**NFPA Hazard Ratings**

Health:	2
Flammability:	1
Reactivity:	0
Unique Hazard:	


**Changes**

Revision date: 11/13/2025

Revision No: 1,5

This data sheet contains changes from the previous version in section(s): 2,6,8,16.

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**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  
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.

This safety data sheet contains only safety-related information and does not replace product information or product specifications.

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

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**1. Identification**
**Product identifier**

DINITROL 512 B

**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	
Internet:	www.dinol.com	
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**

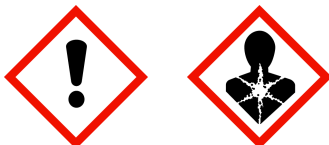
Carcinogenicity: Carc. 2

Reproductive toxicity: Repr. 1A

Respiratory or skin sensitization: Skin Sens. 1

Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

**Label elements**
**29 CFR Part 1910.1200**
**Signal word:** Danger

**Pictograms:**

**Hazard statements**

Fatal if swallowed

Toxic in contact with skin

May cause an allergic skin reaction

Suspected of causing cancer

May damage fertility or the unborn child

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May cause damage to organs through prolonged or repeated exposure

#### Precautionary statements

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If swallowed: Immediately call a poison center/doctor.  
 Rinse mouth.  
 If on skin: Wash with plenty of water.  
 Call a poison center/doctor if you feel unwell.  
 Take off immediately all contaminated clothing and wash it before reuse.  
 If exposed or concerned: Get medical advice/attention.  
 Store locked up.

#### Hazards not otherwise classified

No information available.

### 3. Composition/information on ingredients

#### Mixtures

##### Relevant ingredients

CAS No	Components	Quantity
68479-98-1	diethylmethylbenzenediamine	2,5 - < 5 %
1333-86-4	Carbon Black	4.9 %
2687-96-9	1-dodecyl-2-pyrrolidone	0,25 - < 1 %
1185-81-5	Dibutylbis(dodecylthio)-stannan	0,1 - < 0,25 %

#### Further Information

Full text of H statements: see section 16.

### 4. First-aid measures

#### Description of first aid measures

##### General information

No special measures are necessary.

##### 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

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

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No further relevant information available.

## 5. Fire-fighting measures

### 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.

### Specific hazards arising from the chemical

No further relevant information available.

### Special protective equipment and precautions for fire-fighters

No special measures are necessary.

### 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.

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by

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technical means.

**Advice on protection against fire and explosion**

No special measures are necessary.

**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.

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

No special measures are necessary.

**Hints on joint storage**

Not required.

**Further information on storage conditions**

storage temperature: 0 - 35 °C

maximum storage temperature &lt; 35°C

minimum storage temperature &lt; 0 °C

**8. Exposure controls/personal protection**
**Control parameters**
**Exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	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 (inhalable fraction)	-	3	TWA (8 h)	ACGIH-2024
1333-86-4	Carbon black	-	3.5	TWA (8 h)	PEL

**Additional advice on limit values**

This mixture does not contain any substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

**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 : &gt; 0,12 mm

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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.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:	Paste	
Color:	black	
Odor:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		270 °C
Flammability:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		240 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not applicable
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):		1,4 g/cm <sup>3</sup>
Relative vapour density:		not determined
Particle characteristics:		not applicable

### Other information

#### Information with regard to physical hazard classes

Explosive properties

The product is: not explosive

Oxidizing properties

not determined

#### Other safety characteristics

Softening point:

not determined

Viscosity / dynamic:

not determined

#### Further Information

No further relevant information available.

## 10. Stability and reactivity

### Reactivity

No hazardous reaction when handled and stored according to provisions.

### Chemical stability

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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 further relevant information available.

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information**
**Route(s) of Entry**

No information available.

**Information on toxicological effects**
**Acute toxicity**

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

**ATEmix tested**

	Dose	Species	Source
LD50, oral	17163 mg/kg	Rat	
LD50, dermal	570000 mg/kg		

**ATEmix calculated**

ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
68479-98-1	diethylmethylbenzenediamine				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
1333-86-4	Carbon Black				
	oral	LD50 > 15400 mg/kg	Rat	GESTIS	
	dermal	LD50 > 3000 mg/kg	Rabbit	GESTIS	
1185-81-5	Dibutylbis(dodecylthio)-stannan				
	oral	LD50 2000 mg/kg	Rat		
	dermal	LD50 1000 mg/kg	Rabbit		

**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.

**Sensitizing effects**

May cause an allergic skin reaction (1-dodecyl-2-pyrrolidone; Dibutylbis(dodecylthio)-stannan)

**Carcinogenic/mutagenic/toxic effects for reproduction**

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Suspected of causing cancer (Carbon Black)  
 May damage fertility or the unborn child (Dibutylbis(dodecylthio)-stannan)  
 Germ cell mutagenicity: 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**

May cause damage to organs through prolonged or repeated exposure (diethylmethylbenzenediamine)

Carcinogenicity (IARC): Carbon black (CAS 1333-86-4) is listed in group 2B.

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

No information available.

**Additional information on tests**

No information available.

**Practical experience**

No information available.

**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**

CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1333-86-4	Carbon Black					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Danio rerio (zebrafish)		
	Algae toxicity	NOEC 10000 mg/l	3 d	Scenedesmus subspicatus		
1185-81-5	Dibutylbis(dodecylthio)-stannan					
	Acute crustacea toxicity	EC50 0,11 mg/l	48 h			

**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**

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

**Other adverse effects**

No information available.

**Further information**

There are no data available on the mixture itself.

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**13. Disposal considerations**
**Waste treatment methods**
**Disposal recommendations**

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

**Contaminated packaging**

Dispose according to legislation.

**14. Transport information**
**U.S. DOT 49 CFR 172.101**
**UN number or ID number:**

UN 3077

**Proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.

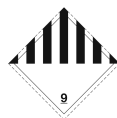
**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:


**Marine transport (IMDG)**
**UN number or ID number:**

UN 3077

**UN proper shipping name:**

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(diethylmethylbenzenediamine, 1-dodecycl-2-pyrrolidone)

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:



Marine pollutant:

yes

Special Provisions:

274, 335, 966, 967, 969

Limited quantity:

5 kg

Excepted quantity:

E1

EmS:

F-A, S-F

**Air transport (ICAO-TI/IATA-DGR)**
**UN number or ID number:**

UN 3077

**UN proper shipping name:**

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(diethylmethylbenzenediamine, 1-dodecycl-2-pyrrolidone)

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:



Special Provisions:

A97 A158 A179 A197

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y956

Excepted quantity:

E1

IATA-packing instructions - Passenger:

956

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IATA-max. quantity - Passenger:	400 kg
IATA-packing instructions - Cargo:	956
IATA-max. quantity - Cargo:	400 kg

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: diethylmethylbenzenediamine, 1-dodecyl-2-pyrrolidone

**Special precautions for user**

Warning

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

not applicable

**15. Regulatory information**
**U.S. Regulations**
**National Inventory TSCA**

Substance/product listed in the following inventories: TSCA

**National regulatory information**

SARA Section 311/312 Hazards:

diethylmethylbenzenediamine (68479-98-1): Immediate (acute) health hazard, Delayed (chronic) health hazard

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

1-dodecyl-2-pyrrolidone (2687-96-9): Immediate (acute) health hazard

Dibutylbis(dodecylthio)-stannan (1185-81-5): Immediate (acute) health hazard

**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](http://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

**16. Other information**
**Hazardous Materials Identification System (HMIS)**

Health:	0
Flammability:	1
Physical Hazard:	0

**NFPA Hazard Ratings**

Health:	0
Flammability:	1
Reactivity:	0
Unique Hazard:	none


**Changes**

Revision date: 11/13/2025

Revision No: 1,4

This data sheet contains changes from the previous version in section(s): 2,8,11,14,16.

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**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  
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.

This safety data sheet contains only safety-related information and does not replace product information or product specifications.

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