

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### DINITROL 448 Pyrmohyd Black

Print date: 08.04.2016

Product code: 5113

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

##### 1.1. Product identifier

DINITROL 448 Pyrmohyd Black

##### 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

Company name:	DINOL GmbH	
Street:	Pyrmonter Strasse 76	
Place:	D-32676 Luegde	
Telephone:	+49 (0) 5281 9829 80	Telefax: +49 (0) 5281 9829 860
Responsible Department:	msds@dinol.com	

**1.4. Emergency telephone number:** Giftnotruf Berlin: +49 30 30686 790 (Consultation in German and English)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

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

Indications of danger: N - Dangerous for the environment

R phrases:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful to aquatic life with long lasting effects.

##### 2.2. Label elements

###### Hazard statements

H412 Harmful to aquatic life with long lasting effects.

###### Precautionary statements

P273 Avoid release to the environment.

P501 This material and its container must be disposed of as hazardous waste.

##### 2.3. Other hazards

No information available.

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

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#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-578-6	ethanol, ethyl alcohol	1 - < 3 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2, Eye Irrit. 2; H225 H319	
01-2119457610-43		
231-944-3	trizinc bis(orthophosphate)	0.1 - < 1 %
7779-90-0	N - Dangerous for the environment R50-53	
030-011-00-6	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
01-2119485044-40		
215-222-5	zinc oxide	0.1 - < 1 %
1314-13-2	N - Dangerous for the environment R50-53	
030-013-00-7	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
01-2119463881-32		

Full text of R, H and EUH phrases: see section 16.

#### Further Information

Note: Each entry in the column EC number that begins with the number "9" is - until the publication the official registration number - one specified by ECHA provisional number for the substance. The above-mentioned substance(s) in this product is (are) identified by CAS number and indeed in Countries that are not subject to the REACH Regulation, or in a regulation which is not in accordance with new naming convention for hydrocarbons have been updated.

## 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 place in recovery position and seek medical advice.

#### After inhalation

Remove casualty to fresh air and keep warm and at rest.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.

#### After contact with skin

Change contaminated clothing.  
 Wash with plenty of water/Soap.  
 Do not wash with: Solvent/Thinner.

#### 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.

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**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**Hazardous decomposition products: Danger of serious damage to health by prolonged exposure.  
Do not inhale explosion and combustion gases. Use appropriate respiratory protection.**5.3. Advice for firefighters**Use water spray jet to protect personnel and to cool endangered containers.  
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**Special danger of slipping by leaking/spilling product.  
Ventilate affected area.**6.2. Environmental precautions**Do not allow to enter into surface water or drains.  
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**Prevent spread over a wide area (e.g. by containment or oil barriers).  
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Treat the recovered material as prescribed in the section on waste disposal.**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**

No special measures are necessary.

**Advice on protection against fire and explosion**

No special measures are necessary.

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

No special measures are necessary.

**Advice on storage compatibility**

Not required.

**Further information on storage conditions**

storage temperature: &gt;0° - &lt; 30°C

**7.3. Specific end use(s)**

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#### 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
7727-43-7	Barium sulphate, inhalable dust	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
546-93-0	Magnesite, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
14807-96-6	Talc respirable dust	-	1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

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Worker DNEL, long-term	inhalation	systemic	10 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	10 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	10 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	13000 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	7,23 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	7,23 mg/kg bw/day
Worker DNEL, long-term	inhalation	local	10 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	700 mg/kg bw/day
<b>64-17-5</b>	<b>ethanol, ethyl alcohol</b>		
Worker DNEL, long-term	inhalation	systemic	950 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local	1900 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	114 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	950 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	87 mg/kg bw/day
<b>7779-90-0</b>	<b>trizinc bis(orthophosphate)</b>		
Worker DNEL, long-term	inhalation	systemic	5 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,5 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	83 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,83 mg/kg bw/day
<b>1314-13-2</b>	<b>zinc oxide</b>		
Worker DNEL, long-term	inhalation	systemic	5 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local	0,5 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,5 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,83 mg/kg bw/day

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Freshwater	0,115 mg/l
Micro-organisms in sewage treatment plants (STP)	62,2 mg/l
Freshwater sediment	600,4 mg/kg
Soil	207,7 mg/kg
Freshwater	0,184 mg/l
Marine water	0,0184 mg/l
Micro-organisms in sewage treatment plants (STP)	100 mg/l
Freshwater sediment	1000 mg/kg
Marine sediment	100 mg/kg
Soil	100 mg/kg
64-17-5	ethanol, ethyl alcohol
Freshwater	0,96 mg/l
Marine water	0,79 mg/l
Freshwater sediment	3,6 mg/kg
Marine sediment	2,9 mg/kg
Secondary poisoning	0,72 mg/kg
Micro-organisms in sewage treatment plants (STP)	580 mg/l
Soil	0,63 mg/kg
7779-90-0	trizinc bis(orthophosphate)
Freshwater	0,0206 mg/l
Marine water	0,0061 mg/l
Micro-organisms in sewage treatment plants (STP)	0,100 mg/l
Freshwater sediment	117,8 mg/kg
Marine sediment	56,5 mg/kg
Soil	35,6 mg/kg
1314-13-2	zinc oxide
Freshwater	0,0206 mg/l
Marine water	0,0061 mg/l
Micro-organisms in sewage treatment plants (STP)	0,100 mg/l
Freshwater sediment	117,8 mg/kg
Marine sediment	56,5 mg/kg
Soil	35,6 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.

### Protective and hygiene measures

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from food, drink and animal feedingstuffs.

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When using do not eat or drink.

**Eye/face protection**

Eye glasses with side protection (DIN EN 166)

**Hand protection**

Tested protective gloves must be worn (DIN EN 374):  
 NBR (Nitrile rubber), Breakthrough time (maximum wearing time): 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**

Protective clothing

**Respiratory protection**

Not required.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: black  
 Odour: characteristic

	<b>Test method</b>
pH-Value:	8

**Changes in the physical state**

Melting point:	not determined
Initial boiling point and boiling range:	100 °C
Flash point:	not applicable DIN 51755

**Flammability**

Solid:	not applicable
Gas:	not applicable

**Explosive properties**

not determined

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined

**Auto-ignition temperature**

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
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**Oxidizing properties**

not determined

Vapour pressure: (at 20 °C)	23 hPa
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Density (at 20 °C):	1,46 g/cm <sup>3</sup> ISO 2811
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Water solubility:	completely miscible
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**Solubility in other solvents**

not determined

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Partition coefficient:	not determined
Viscosity / dynamic: (at 20 °C)	4850 mPa·s
Flow time: (at 20 °C)	4 DIN EN ISO 2431
Vapour density:	not determined
Evaporation rate:	not determined
Solvent content:	2,5 %, water: 22,8 %

#### 9.2. Other information

Solid content: 68,0 %

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 known hazardous reactions.

#### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

Carbon monoxide.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
7779-90-0	trizinc bis(orthophosphate)				
	oral	LD50	> 5000 mg/kg	Rat	
	inhalative (4 h) aerosol	LC50	>5,7 mg/l	Rat	
1314-13-2	zinc oxide				
	oral	LD50	> 5000 mg/kg	Rat	IUCLID
	inhalative (4 h) aerosol	LC50	> 5,7 mg/l	Rat	

##### Irritation and corrosivity

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

##### Sensitising effects

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

##### STOT-single exposure

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



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### Severe effects after repeated or prolonged exposure

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

### Carcinogenic/mutagenic/toxic effects for reproduction

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

### Aspiration hazard

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

### Further information

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

## SECTION 12: Ecological information

### 12.1. Toxicity

CAS No	Chemical name	Method	Dose	[h]   [d]	Species	Source
7779-90-0	trizinc bis(orthophosphate)					
	Acute fish toxicity	LC50	0,09 mg/l	96 h	fish	GESTIS
1314-13-2	zinc oxide					
	Acute fish toxicity	LC50	1120 mg/l	96 h	fish	GESTIS
	Acute crustacea toxicity	EC50	12,3 mg/l	48 h		GESTIS

### 12.2. Persistence and degradability

There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

not applicable

### 12.6. 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.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

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

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

#### Waste disposal number of waste from residues/unused products

080116 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; aqueous sludges containing paint or varnish other than those mentioned in 08 01 15

#### Waste disposal number of 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 Classified as hazardous waste.

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#### Contaminated packaging

Completely emptied packages can be recycled.  
Remove according to the regulations.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.  
Marine pollutant: no

#### Air transport (ICAO)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

### SECTION 15: Regulatory information

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

##### EU regulatory information

2004/42/EC (VOC): 2,46 % (36 g/l)

##### 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 juvenils 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 contaminating class (D): 2 - water contaminating

#### 15.2. Chemical safety assessment

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

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#### SECTION 16: Other information

##### 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%

##### Relevant R phrases (number and full text)

11 Highly flammable.  
50 Very toxic to aquatic organisms.  
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
53 May cause long-term adverse effects in the aquatic environment.

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

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful 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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*