





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

- **1.1 Product identifier**
- **Trade name: *DINITROL 447 Protect super schwarz***
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** *Coating material*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*DINOL GmbH*  
*Pyrmonter Str. 76*  
*D-32676 Lügde*  
*Tel: +49 5281 9829 80*  
*Fax: +49 5281 9829 860*  
*E-mail: msds@dinol.com*
- **Further information obtainable from:** *Research & Development*
- **1.4 Emergency telephone number:** *Giftnotruf Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.*

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
-  **Xi; Irritant**  
*R38: Irritating to skin.*
-  **Xi; Sensitising**  
*R43: May cause sensitisation by skin contact.*
-  **F; Highly flammable**  
*R11: Highly flammable.*
-  **N; Dangerous for the environment**  
*R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*  
*R67: Vapours may cause drowsiness and dizziness.*
- **Information concerning particular hazards for human and environment:**  
*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*  
*Has a narcotizing effect.*
- **Classification system:**  
*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*
- **2.2 Label elements**
- **Labelling according to EU guidelines:**  
*The product has been marked in accordance with EU Directives / respective national laws.*  
*The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.*  
*The R and S phrases may be omitted if packaging contains no more than 0.125 litre.*

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**Trade name: DINITROL 447 Protect super schwarz**

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· **Code letter and hazard designation of product:**

Xi Irritant  
F Highly flammable  
N Dangerous for the environment

· **Hazard-determining components of labelling:**

Gom Resin

· **Risk phrases:**

11 Highly flammable.  
38 Irritating to skin.  
43 May cause sensitisation by skin contact.  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

2 Keep out of the reach of children.  
9 Keep container in a well-ventilated place.  
24/25 Avoid contact with skin and eyes.  
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
37 Wear suitable gloves.  
46 If swallowed, seek medical advice immediately and show this container or label.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

· **3.2 Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with additions.

· **Dangerous components:**

CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light R67 Xn R65; Xi R38; F R11; N R51/53 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	25-<50%
CAS: 1330-20-7 EINECS: 215-535-7	Xylene, mixed isomers, pure R10 Xn R20/21; Xi R38 Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	10-<25%
CAS: 8050-09-7 EINECS: 232-475-7	Gom Resin Xi R43 Skin Sens. 1, H317	5-<10%
CAS: 141-78-6 EINECS: 205-500-4	Ethyl acetate R66-67 Xi R36; F R11 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	1-<5%

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CAS: 64742-48-9 EINECS: 265-150-3	Naphtha (petroleum), hydrotreated heavy Xn R65 R10-66-67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336	1-<5%
CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. Xn R65; Xi R37; N R51/53 R10-66-67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	1-<5%
CAS: 64-17-5 EINECS: 200-578-6	Ethanol F R11 Flam. Liq. 2, H225	1-<5%
CAS: 7779-90-0 EINECS: 231-944-3	Trizinc bis(orthophosphate) N R50/53 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<1%
CAS: 110-54-3 EINECS: 203-777-6	n-Hexane Xn R48/20-62-65; Xi R38; F R11; N R51/53 R67 Repr. Cat. 3 Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	<1%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures**

· **4.1 Description of first aid measures**

· **After inhalation:**

Take affected persons into fresh air and keep quiet.

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **4.2 Most important symptoms and effects, both acute and delayed**

Dizziness

Headache

Dizziness

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures**

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

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· **Additional information** Cool endangered receptacles with water spray.

### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**1330-20-7 Xylene, mixed isomers, pure**

WEL Short-term value: 441 mg/m<sup>3</sup>, 100 ppm

Long-term value: 220 mg/m<sup>3</sup>, 50 ppm

Sk; BMGV

**8050-09-7 Gom Resin**

WEL Short-term value: 0.15 mg/m<sup>3</sup>

Long-term value: 0.05 mg/m<sup>3</sup>

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**141-78-6 Ethyl acetate**

WEL Short-term value: 400 ppm  
Long-term value: 200 ppm

**64-17-5 Ethanol**

WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

· **Ingredients with biological limit values:****1330-20-7 Xylene, mixed isomers, pure**

BMGV 650 mmol/mol creatinine  
Medium: urine  
Sampling time: post shift  
Parameter: methyl hippuric acid

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the skin.  
Avoid close or long term contact with the skin.  
Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter A/P2

· **Protection of hands:**

Protective gloves

· **Material of gloves**

PVA gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Fluorocarbon rubber (Viton)

· **Penetration time of glove material**

> 480 min.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:** Natural rubber

· **Eye protection:**

Tightly sealed goggles

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· **Body protection:** Protective work clothing

### **SECTION 9: Physical and chemical properties**

#### · **9.1 Information on basic physical and chemical properties**

##### · **General Information**

##### · **Appearance:**

· <b>Form:</b>	Viscous
· <b>Colour:</b>	Black
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

##### · **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	88 °C

· **Flash point:** -12 °C (DIN 53213)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 200 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

##### · **Explosion limits:**

· <b>Lower:</b>	0.8 Vol % (-)
· <b>Upper:</b>	7.7 Vol % (-)

· **Vapour pressure At 20 °C:** 61 hPa

· **Density At 20 °C:** 1.04 g/cm<sup>3</sup> (DIN 51757)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

##### · **Viscosity:**

· <b>Dynamic At 20 °C:</b>	500 mPas
· <b>Kinematic:</b>	Not determined.

##### · **Solvent content:**

· **Organic solvents:** 51.0 %

· **Solids content:** 49.0 % (DIN 53216)

· **9.2 Other information** No further relevant information available.

· **VOC (EU):** 50.50 %

· **VOC (EU):** 520.0 g/l

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· **VOCV:** 50.50 %

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Carbon monoxide

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

#### 64742-49-0 Naphtha (petroleum), hydrotreated light

Oral	LD50	>5000 mg/kg (RAT)
Dermal	LD50	>2600 mg/kg (RABBIT)
Inhalative	LC50/4 h	>193 mg/l (RAT)

#### 1330-20-7 Xylene, mixed isomers, pure

Oral	LD50	8700 mg/kg (RAT)
Dermal	LD50	2000 mg/kg (RABBIT)
Inhalative	LC50/4 h	6350 mg/l (RAT)

#### 141-78-6 Ethyl acetate

Oral	LD50	4935 mg/kg (RABBIT)
Inhalative	LC50/4 h	1600 mg/l (RAT)

#### 64742-48-9 Naphtha (petroleum), hydrotreated heavy

Oral	LD50	>5000 mg/kg (RAT)
Dermal	LD50	>3000 mg/kg (RAT)

#### 64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6800 mg/kg (RAT)
Dermal	LD50	>3400 mg/kg (RAT)
Inhalative	LC50/4 h	>10.2 mg/l (RAT)

#### 64-17-5 Ethanol

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

#### 7779-90-0 Trizinc bis(orthophosphate)

Oral	LD50	>5000 mg/kg (rat)
	LC50/96 h	0.09 mg/l (SALMO GAIRDNERI / ONCORHYNCHUS MYKISS)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

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- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant
- **Inhalation:** Harmful by inhalation.
- **Ingestion:** May cause similar symptoms as for inhalation.

## SECTION 12: Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

**64742-49-0 Naphtha (petroleum), hydrotreated light**

EC50/48 h | 10 mg/l (PHAEOPHYTA)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

### · 13.1 Waste treatment methods

#### · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

#### · European waste catalogue

15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by dangerous substances
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances

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**Trade name: DINITROL 447 Protect super schwarz**

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	UN1139
· <b>14.2 UN proper shipping name</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	1139 COATING SOLUTION, ENVIRONMENTALLY HAZARDOUS, special provision 640D COATING SOLUTION (Naphtha (petroleum), hydrotreated light, Solvent naphtha (petroleum), light arom.), MARINE POLLUTANT COATING SOLUTION
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, IMDG</b>	
 	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b>  · <b>Marine pollutant:</b>  · <b>Special marking (ADR):</b>	Product contains environmentally hazardous substances: Trizinc bis(orthophosphate), Naphtha (petroleum), hydrotreated light Yes Symbol (fish and tree) Symbol (fish and tree)
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 33 F-E,S-E
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Transport category</b>	5L 2

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**Trade name: DINITROL 447 Protect super schwarz**

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· Tunnel restriction code

D/E

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to EU guidelines:**  
The product has been marked in accordance with EU Directives / respective national laws.  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.  
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.
- **Code letter and hazard designation of product:**  
Xi Irritant  
F Highly flammable  
N Dangerous for the environment
- **Hazard-determining components of labelling:**  
Gom Resin
- **Risk phrases:**  
11 Highly flammable.  
38 Irritating to skin.  
43 May cause sensitisation by skin contact.  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
67 Vapours may cause drowsiness and dizziness.
- **Safety phrases:**  
2 Keep out of the reach of children.  
9 Keep container in a well-ventilated place.  
24/25 Avoid contact with skin and eyes.  
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
37 Wear suitable gloves.  
46 If swallowed, seek medical advice immediately and show this container or label.
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
I	0.2
NK	52.2
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
H225 Highly flammable liquid and vapour.  
H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.

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- H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H336 May cause drowsiness or dizziness.  
 H361f Suspected of damaging fertility.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.
- .....
- R10 Flammable.  
 R11 Highly flammable.  
 R20/21 Harmful by inhalation and in contact with skin.  
 R36 Irritating to eyes.  
 R37 Irritating to respiratory system.  
 R38 Irritating to skin.  
 R43 May cause sensitisation by skin contact.  
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R62 Possible risk of impaired fertility.  
 R65 Harmful: may cause lung damage if swallowed.  
 R66 Repeated exposure may cause skin dryness or cracking.  
 R67 Vapours may cause drowsiness and dizziness.

- **Department issuing MSDS:** Research & Development
- **Contact:** Kontakt: msds@dinol.com oder Tel.: 0049 (0)5281 982 980
- **\* Data compared to the previous version altered.**