

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

**1.1. Product identifier**

Mabanol Turbinenöl 46

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

**Use of the substance/mixture**

Industrial uses

**Uses advised against**

No information available.

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

Company name: Mabanol GmbH & Co. KG  
Street: Admiralitätstraße 55  
Place: D-20459 Hamburg  
**Responsible Department:**  
Telephone: +49 (0) 40 36809988

**1.4. Emergency telephone:** Giftinformationszentrale Göttingen  
Telephone: 0551/1 92 40

**SECTION 2: Hazards identification**

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

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

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.

**Hazard Overview**

Physical hazards: No risks worthy of mention.

health hazards: May cause sensitisation especially in sensitive humans.

Environmental hazards: 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 Dispose of waste according to applicable legislation.

**Special labelling of certain mixtures**

EUH208 Contains N-Phenyl-1-naphthylamine. May produce an allergic reaction.

**2.3. Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

This mixture contains no substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH.

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

**3.2. Mixtures**

**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		
273-066-3	Phenol, isopropylated, phosphate (3:1)	< 1 %
68937-41-7	Repr. Cat. 3, Xn - Harmful, N - Dangerous for the environment R62-63-48/22-51-53	
	Repr. 2, STOT RE 2, Aquatic Chronic 2; H361fd H373 H411	
201-983-0	N-Phenyl-1-naphthylamine	< 1 %
90-30-2	Xn - Harmful, N - Dangerous for the environment R22-43-50-53	
	Acute Tox. 4, Skin Sens. 1, STOT RE 2, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H302 H317 H373 H400 H410	
01-2119488704-27		

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

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, consult a physician.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

If swallowed or in the event of vomiting, risk of entering the lungs.

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

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Sand. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. In case of major fire and large quantities: Water spray jet. Water mist.

**Unsuitable extinguishing media**

Full water jet

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

Burning produces heavy smoke.

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Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>) Sulphur dioxide (SO<sub>2</sub>) Nitrogen oxides (NO<sub>x</sub>)

**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

**SECTION 6: Accidental release measures**

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

Wear personal protection equipment (refer to section 8).

Ventilate affected area.

Special danger of slipping by leaking/spilling product.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil. If required, notify relevant authorities according to all applicable regulations.

**6.3. Methods and material for containment and cleaning up**

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.

Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

No information available.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Wear suitable protective clothing. ( See section 8. )

Avoid formation of oil dust.

**Advice on protection against fire and explosion**

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Fire class B

**Further information on handling**

Do not breathe vapour/aerosol.

Avoid contact with skin and eyes.

Advices on general occupational hygiene: See section 8.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

**Advice on storage compatibility**

Do not store together with: Gas. Explosives. Radioactive substances. Infectious substances

**Further information on storage conditions**

Temperature control required. Protect from light. Keep container tightly closed. Do not allow contact with air.

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

refer to chapter 1.

**SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

#### DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
8042-47-5	White mineral oil (petroleum)		
Worker DNEL, long-term	inhalation	systemic	160 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	220 mg/kg bw/day
90-30-2	N-Phenyl-1-naphthylamine		
Worker DNEL, long-term	dermal	systemic	0,12 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	0,41 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	0,06 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,1 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	0,06 mg/kg bw/day

#### PNEC values

CAS No	Substance	
Environmental compartment	Value	
90-30-2	N-Phenyl-1-naphthylamine	
Soil	0,0068 mg/kg	
Marine sediment	0,00344 mg/kg	
Marine water	0,00002 mg/l	
Freshwater sediment	0,0344 mg/kg	
Freshwater	0,0002 mg/l	
Micro organisms in sewage treatment plants (STP)	100 mg/l	

#### Additional advice on limit values

air limit values:  
 Possibility of exposure to Aerosol  
 Limit value = 5 mg/ m<sup>3</sup> - Source: ACGIH

### 8.2. Exposure controls



#### Appropriate engineering controls

Provide adequate ventilation.

#### Protective and hygiene measures

Clean skin thoroughly after working.  
 Do not put any product-impregnated cleaning rags into your trouser pockets.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wash contaminated clothing before reuse.

#### Eye/face protection

Safety goggles with side protection. In case of increased risk add protective face shield. DIN EN 166

### Hand protection

Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 388.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

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.

### Skin protection

Oil-resistant and hardly inflammable protective clothing.

### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

- aerosol or mist formation
- exceeding exposure limit values

Suitable respiratory protection apparatus: Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

### Environmental exposure controls

No information available.

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	-
Odour:	-

#### Test method

pH-Value:	No information available.
<b>Changes in the physical state</b>	
Melting point:	No information available.
Initial boiling point and boiling range:	No information available.
Sublimation point:	No information available.
Softening point:	No information available.
Pour point:	-12 °C ASTM D 5985
Flash point:	238 °C DIN ISO 2592
Sustaining combustion:	No data available

### Flammability

Solid:	No information available.
Gas:	No information available.

### Explosive properties

none

Lower explosion limits:	No information available.
Upper explosion limits:	No information available.
Ignition temperature:	No information available.

### Auto-ignition temperature

Solid:	No information available.
Gas:	No information available.

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Decomposition temperature:	No information available.
<b>Oxidizing properties</b> none	
Vapour pressure: (at 20 °C)	No information available.
Vapour pressure: (at 50 °C)	No information available.
Density (at 15 °C):	0,874 g/cm <sup>3</sup> DIN 51757
Bulk density:	No information available.
Water solubility:	No information available.
<b>Solubility in other solvents</b> No information available.	
Partition coefficient:	No information available.
Viscosity / dynamic:	No information available.
Viscosity / kinematic: (at 40 °C)	46,6 mm <sup>2</sup> /s DIN EN ISO 3104
Flow time:	No information available.
Vapour density:	No information available.
Evaporation rate:	No information available.
Solvent separation test:	No information available.
Solvent content:	No information available.
<b><u>9.2. Other information</u></b>	
Solid content:	No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

Stable at ambient temperature.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

**10.4. Conditions to avoid**

No information available.

**10.5. Incompatible materials**

Oxidising agent, strong

**10.6. Hazardous decomposition products**

No hazardous decomposition products known.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

No information available.

**Acute toxicity**

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

### Mabanol Turbinenöl 46

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
68937-41-7	Phenol, isopropylated, phosphate (3:1)				
	oral	LD50	>5000 mg/kg	Rat	MSDS extern
	dermal	LD50	>10000 mg/kg	Rabbit.	ECHA dossier
	inhalative (1 h) aerosol	LC50	>200 mg/l	Rat.	ECHA dossier
90-30-2	N-Phenyl-1-naphthylamine				
	oral	LD50	1625 mg/kg	Rat	ECHA Dossier
	dermal	LD50	>5000 mg/kg	Rabbit	ECHA Dossier

#### **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.

May cause sensitisation especially in sensitive humans.

#### **STOT-single exposure**

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

#### **Severe effects after repeated or prolonged exposure**

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

Phenol, isopropylated, phosphate (3:1):

Subchronic inhalative toxicity:

Method: -

species: Rat

Results: NOEC = 10 mg/l

literature information: ECHA Dossier

Subacute dermal toxicity:

Method: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

species: Rat.

Results: NOAEL = 200 mg/kg

literature information: ECHA Dossier

N-1-naphthylaniline:

Subacute oral toxicity:

Method: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

species: Rat

Results: NOAEL = 80 mg/kg

literature information: ECHA Dossier

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

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

Phenol, isopropylated, phosphate (3:1):

In-vitro mutagenicity:

Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Result: negative.

literature information: ECHA dossier

Reproductive toxicity:

species: Rat

Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Results: NOAEL <= 400 mg/kg

literature information: ECHA Dossier

N-1-naphthylaniline:

In-vitro mutagenicity:

Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Result: negative.

literature information: ECHA dossier

Carcinogenicity: Evidence for human carcinogenicity. International Programme on Chemical Safety's Concise International Chemical Assessment Documents. Number 9: N-Phenyl-1-naphthylamine (1998). Available from, as of July 26, 2004:

<http://www.inchem.org/documents/cicads/cicads/cicad9.htm>

#### Aspiration hazard

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

#### Practical experience

#### Other observations

Frequent contact specially if dried out may cause skin and eye irritations.

## SECTION 12: Ecological information

### 12.1. Toxicity

CAS No	Chemical name	Method	Dose	[h]   [d]	Species	Source
68937-41-7	Phenol, isopropylated, phosphate (3:1)					
	Acute fish toxicity	LC50	1-10 mg/l	96 h		ECHA dossier
	Acute algae toxicity	ErC50	>2,5 mg/l	96 h		ECHA dossier
	Acute crustacea toxicity	EC50	1-10 mg/l	48 h	daphnia magna	ECHA dossier
90-30-2	N-Phenyl-1-naphthylamine					
	Acute fish toxicity	LC50	0,44 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier
	Acute crustacea toxicity	EC50	0,3 mg/l	48 h	Daphnia magna	ECHA Dossier
	Crustacea toxicity	NOEC	0,02 mg/l	21 d	Daphnia magna	ECHA Dossier

### 12.2. Persistence and degradability

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.



## Mabanol Turbinenöl 46

CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
68937-41-7	Phenol, isopropylated, phosphate (3:1)	OECD 301D / EEC 92/69 annex V, C.4-E	17,9%	28	ECHA dossier
	not readily degradable				
90-30-2	N-Phenyl-1-naphthylamine	OECD 301C / ISO 9408 / EEC 92/69 annex V, C.4-F	0%	28	ECHA Dossier
	Product is not easily biodegradable.				

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68937-41-7	Phenol, isopropylated, phosphate (3:1)	4,92
90-30-2	N-Phenyl-1-naphthylamine	4,28

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### 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 dangerous substances Classified as hazardous waste.

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

## 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.

### Inland waterways transport (ADN)

- 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.

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**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.

**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**

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

not relevant

**SECTION 15: Regulatory information**

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

**EU regulatory information**

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

**Additional information**

Not subject to 96/82/EC

Observe in addition any national regulations!

**National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**Additional information**

none

**15.2 Chemical Safety Assessment**

not applicable.

**SECTION 16: Other information**

**Changes**

Rev. : 1,0 - 07.05.2015

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service

DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level  
NOAEC: No observed adverse effect level  
NTP: National Toxicology Program  
N/A: not applicable  
OSHA: Concerning the International Transport of Dangerous Goods by Rail )  
PNEC: predicted no effect concentration  
PBT: Persistent bioaccumulative toxic  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
SARA: Superfund Amendments and Reauthorization Act  
SVHC: substance of very high concern  
TRGS Technische Regeln für Gefahrstoffe  
TSCA: Toxic Substances Control Act  
VOC: Volatile Organic Compounds  
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe  
WGK: Wassergefährdungsklasse

**Relevant R-phrases (Number and full text)**

- 22 Harmful if swallowed.
- 43 May cause sensitisation by skin contact.
- 48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- 50 Very toxic to aquatic organisms.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 62 Possible risk of impaired fertility.
- 63 Possible risk of harm to the unborn child.

**Relevant H- and EUH-phrases (Number and full text)**

- H302 Harmful if swallowed.
- H317 May cause an allergic skin reaction.
- H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- 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.
- H412 Harmful to aquatic life with long lasting effects.
- EUH208 Contains N-Phenyl-1-naphthylamine. May produce an allergic reaction.

**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.

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

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