# Safety Data Sheet
## D1

Revision date: 2011-03-30 according to regulation 1907/2006/EC Print date: 2012-09-25

# 1 Identification of the substance/preparation and company/undertaking

## 1.1 Identification of the substance or preparation

**Product name:** D1

**Uses:** Operating fluid/ Lubricant for vacuum pumps

**Manufacturer/ Supplier:**
PFEIFFER VACUUM GmbH
Berliner Strasse 43
D-35614 Asslar
Telefon ++49 6441/1802-0
Telefax ++49 6441/1802-202
www.pfeiffer-vacuum.net
Email: info@pfeiffer-vacuum.de

**Emergency telephone number:** Tel.: ++49 228/19240

# 2 Hazards identification

## 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

**Chronic aquatic toxicity, Category 3** H412: Harmful to aquatic life with long lasting effects.

**Classification (67/548/EEC, 1999/45/EC)**

**Dangerous for the environment** R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

**Hazard statements :** H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements :**
- Prevention: P273 Avoid release to the environment.
- Response: P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Hazardous components which must be listed on the label:**
- 122-39-4 diphenylamine
- 90-30-2 N-1-naphthylaniline

**Additional Labelling:**

EUH208 Contains: N-1-naphthylanilineMay produce an allergic reaction.
Restricted to professional users.

## 2.3 Other hazards

No information available. Do not handle until all safety precautions have been read and understood.

# 3 Composition/information on ingredients

## 3.1 Mixtures

**Hazardous components**

| Chemical Name | CAS-No.<br>EG-No.<br>Registration number | Classification (67/548/EEC) | Classification (REGULATION (EC) No. 1272/2008) | Concentration [%] |
|---|---|---|---|---|
| N-1-naphthylaniline | 90-30-2<br>201-983-0 | Xn; R22-R48/22<br>Xi; R43<br>N; R50/53 | Akut Tox. 4; H302<br>Skin Sens. 1; H317<br>STOT RE 2; H373<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 | >= 0,25 - < 1 |
| diphenylamine | 122-39-4<br>204-539-4 | T; R23/24/25<br>R33<br>N; R50-R53 | Akut Tox. 3; H331<br>Akut Tox. 3; H311<br>Akut Tox. 3; H301<br>STOT RE 2; H373<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 | < 0,25 |

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

# 4 First-aid measures

## 4.1 Description of first aid measures

**General advice :** No hazards which require special first aid measures.

**If inhaled :** Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.

**In case of skin contact:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

**In case of eye contact :** Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

**If swallowed :** Clean mouth with water and drink afterwards plenty of water.

Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms :** None known

### 4.3 Indication of any immediate medical attention and special treatment needed

**Treatment :** For specialist advice physicians should contact the Poisons

## 5 Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media :** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 5.2 Special hazards arising from the substance or mixture

**Specific hazards during fire fighting :** Burning produces noxious and toxic fumes.

### 5.3 Advice for firefighters

**Special protective equipment for fire-fighters :** In the event of fire, wear self-contained breathing apparatus.

**Further information :** Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**Personal precautions :** Use personal protective equipment.

### 6.2 Environmental precautions

**Environmental precautions :** If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up :** Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

# 7 Handling and storage

## 7.1 Precautions for safe handling

**Advice on safe handling :** For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.

**Advice on protection against fire and explosion :** Normal measures for preventive fire protection.

## 7.2 Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers :** Keep container tightly closed in a dry and well-ventilated place.

**Other data :** No decomposition if stored and applied as directed.

## 7.3 Specific end uses

**Specific use(s) :** Raw material for industry

# 8 Exposure controls/personal protection

## 8.1 Control parameters

| Components | CAS-No. | Value | Control parameters | update | Basis |
|---|---|---|---|---|---|
| diphenylamine | 122-39-4 | TGG 8 hr | 10 mg/m$^3$ | 2006-03-23 | BE OEL |

## 8.2 Exposure controls

### Engineering measures

Effective exhaust ventilation system
Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

**Respiratory protection:** Breathing apparatus needed only when aerosol or mist is formed.
Respirator with filter for organic vapour

**Hand protection :** Polyvinyl alcohol or nitrile- butyl-rubber gloves
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Before removing gloves clean them with soap and water.

**Eye protection :** Eye wash bottle with pure water
Tightly fitting safety goggles

**Skin and body protection :** impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures :** Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.

### Environmental exposure controls

**General advice :** If the product contaminates rivers and lakes or drains inform respective authorities.

# 9 Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Appearance | liquid |
| Colour | yellow |
| Odour | characteristic |
| Odour Threshold | No information available |
| Flash point | 250 °C |
| Ignition temperature | No information available |
| Lower explosion limit | No information available |
| Upper explosion limit | No information available |
| Flammability (solid, gas) | No information available |
| Autoignition temperature | No information available |
| pH | No information available |
| Vapour pressure | No information available |
| Density | 0,957 g/cm$^3$ |
| Water solubility | No information available |
| Partition coefficient: n-octanol/water | No information available |
| Solubility in other solvents | No information available |
| Viscosity, dynamic | 93,5 mPa.s at 40 °C |
| Relative vapour density | No information available |
| Evaporation rate | No information available |

## 9.2 Other information

**Oxidising potential :** Note: No information available

# 10 Stability and reactivity

## 10.1Reactivity

Stable under recommended storage conditions.

## 10.2Chemical stability

No decomposition if stored and applied as directed.

## 10.3Possibility of hazardous reactions

**Hazardous reactions :** Note: No decomposition if used as directed.

## 10.4Conditions to avoid

**Conditions to avoid :** Exposure to moisture.
Contamination

## 10.5Incompatible materials

**Materials to avoid :** Acids, Bases, Oxidizing agents

## 10.6Hazardous decomposition products

**Hazardous decomposition products :** Carbon oxides, nitrogen oxides (NOx)

# 11 Toxicological information

## 11.1Information on toxicological effects

### Acute toxicity

**Acute oral toxicity :** Remarks: Not classified due to lack of data.

**Acute oral toxicity**
**N-1-naphthylaniline :** LD50: 1.625 mg/kg
Species: rat

**diphenylamine :** LD50: > 1.500 mg/kg
Species: rat

**Acute inhalation toxicity :** Remarks: Not classified due to lack of data.

**Acute dermal toxicity :** Remarks: Not classified due to lack of data.

**Acute dermal toxicity**
**N-1-naphthylaniline :** LD50 Dermal: > 5.000 mg/kg
Species: rabbit

**diphenylamine :** LD50: > 5.000 mg/kg
Species: rabbit

### Skin corrosion/irritation

**Skin irritation :** Remarks: According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

**Skin irritation**
**N-1-naphthylaniline :** Species: rabbit
Result: No skin irritation
Method: Draize Test

**diphenylamine :** Species: rabbit
Result: No skin irritation

### Serious eye damage/eye irritation

**Eye irritation :** Remarks: Not classified due to lack of data.

**Eye irritation**
**N-1-naphthylaniline :** Species: rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

### Respiratory or skin sensitization

**Sensitisation :** Remarks: Not classified due to lack of data.

**Sensitisation**
**N-1-naphthylaniline :** Maximisation Test
Species: guinea pig
Classification: May cause sensitization by skin contact.
Patch Test
Species: Human
Classification: May cause sensitization by skin contact.

| | |
|---|---|
| **Germ cell mutagenicity**<br>**N-1-naphthylaniline :** | Ames test<br>Result: negative<br><br>Chinese Hamster Ovary (CHO)<br>Result: negative |
| **Genotoxicity in vivo**<br>**N-1-naphthylaniline :** | in vivo assay<br>Species: mouse<br>Result: negative |

**Mutagenicity Assessment**

**Remarks :** Not classified due to lack of data.

**Carcinogenicity Assessment**

**Remarks :** Not classified due to lack of data.

**Reproductive toxicity Assessment**

**Remarks :** Not classified due to lack of data.

**Target Organ Systemic Toxicant - Single exposure**

**Remarks:** Not classified due to lack of data.

**Target Organ Systemic Toxicant - Repeated exposure**

**Remarks:** Not classified due to lack of data.

**Aspiration hazard**

**Aspiration toxicity :** No aspiration toxicity classification

**Toxicology Assessment**

**Further information** : No data is available on the product itself.

# 12 Ecological information

## 12.1 Toxicity

| | |
|---|---|
| **Toxicity to fish :** | no data available |
| **Toxicity to fish**<br>**N-1-naphthylaniline :** | LC50: 0,44 mg/l<br>Exposure time: 96 h<br><br>Species: Oncorhynchus mykiss (rainbow trout)<br>semi-static test Analytical monitoring: yes |
| **diphenylamine :** | LC50: 3,79 mg/l<br>Exposure time: 96 h<br><br>Species: Pimephales promelas (fathead minnow)<br>flow-through test<br>LC50: > 20 mg/l<br>Exposure time: 48 h<br><br>Species: Leuciscus idus (Golden orfe)<br>LC50: 5,1 mg/l<br>Exposure time: 48 h<br><br>Species: Oryzias latipes (Orange-red killifish) |

| | |
|---|---|
| **Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity) N-1-naphthylaniline :** | NOEC: 0,02 mg/l<br>Exposure time: 21 d<br>Species: Daphnia magna (Water flea)<br>Analytical monitoring: yes |

### 12.2 Persistence and degradability

| | |
|---|---|
| **Biodegradability :** | no data available |
| **Biodegradability N-1-naphthylaniline :** | aerobic<br>According to the results of tests of biodegradability this product is not readily biodegradable.<br>0 %<br>Method: OECD Test Guideline 301 |

### 12.3 Bioaccumulative potential

| | |
|---|---|
| **Bioaccumulation :** | no data available |
| **Bioaccumulation N-1-naphthylaniline :** | Species: Cyprinus carpio (Carp)<br>Exposure time: 56 d<br>Temperature: 25 °C<br>Concentration: 0,1 mg/l<br>Bioconcentration factor (BCF): 427 - 2.730 |

### 12.4 Mobility in soil

| | |
|---|---|
| **Mobility :** | no data available |

### 12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### 12.6 Other adverse effects

| | |
|---|---|
| **Additional ecological information :** | The product itself has not been tested.<br>An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.<br>Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

## 13 Disposal considerations

### 13.1 Waste treatment methods

| | |
|---|---|
| **Product :** | The product should not be allowed to enter drains, water courses or the soil.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Offer surplus and non-recyclable solutions to a licensed disposal company. |
| **Contaminated packaging :** | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers. |

# 14 Transport information

| | |
|---|---|
| **ADR** | Not dangerous goods. |
| **IATA** | Not dangerous goods. |
| **IMDG** | Not dangerous goods. |
| **RID** | Not dangerous goods. |

# 15 Regulatory information

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

**Candidate List of Substances of Very High Concern for Authorisation :** This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

**Major Accident Hazard Legislation :** 96/82/EC Update: 2003
Directive 96/82/EC does not apply

**Water contaminating class (Germany) :** WGK 1 slightly water endangering self classification

**Notification status**

| | |
|---|---|
| US.TSCA | Not On TSCA Inventory |
| DSL | This product contains the following components that are not on the Canadian DSL nor NDSL lists |
| AICS | Not in compliance with the inventory |
| NZIoC | Not in compliance with the inventory |
| ENCS | Not in compliance with the inventory |
| KECI | Not in compliance with the inventory |
| PICCS | Not in compliance with the inventory |
| IECSC | Not in compliance with the inventory |
| CH INV | The formulation contains substances listed on the Swiss Inventory |

## 15.2 Chemical Safety Assessment

No information available.

# 16 Other information

**Full text of R-phrases referred to under sections 2 and 3**

| | |
|---|---|
| **R22** | Harmful if swallowed. |
| **R23/24/25** | Toxic by inhalation, in contact with skin and if swallowed. |
| **R33** | Danger of cumulative effects. |
| **R43** | May cause sensitization by skin contact. |
| **R48/22** | Harmful: danger of serious damage to health by prolonged exposure if swallowed. |
| **R50** | Very toxic to aquatic organisms. |
| **R50/53** | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| **R52/53** | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| **R53** | May cause long-term adverse effects in the aquatic environment. |

**Full text of H-Statements referred to under sections 2 and 3.**

| | |
|---|---|
| **H301** | Toxic if swallowed. |
| **H302** | Harmful if swallowed. |
| **H311** | Toxic in contact with skin. |
| **H317** | May cause an allergic skin reaction. |
| **H331** | Toxic if inhaled. |
| **H373** | May cause damage to organs through prolonged or repeated exposure if swallowed. |
| **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. |

## 16.1 Responsible department:

Development Dep./Technical Documentation

**Notice to reader**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.