# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Mintex Brake fluid LHM+



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

### 1.1. Product identifier

MBFLHM-1000B

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

**Use of the substance/mixture**

Hydraulic (functional) fluids
PC-TEC-8: Hydraulic fluids, including brake and transmission fluids

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

| | | |
|---|---|---|
| Company name: | TMD Friction Services GmbH | |
| Street: | Schlebuscher Str. 99 | |
| Place: | D-51381 Leverkusen | |
| Telephone: | +49 (2171)703-0 | |
| e-mail: | serviceline@tmdfriction.com | |
| Contact person: | Hr. Beier | Telephone: +49 (2171)9113-7373 |
| e-mail: | serviceline@tmdfriction.com | |
| Internet: | www.tmdfriction.com | |

### 1.4. Emergency telephone number:

GIZ Bonn: +49 (0)228-19240 (24/7)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No. 1272/2008**

Hazard categories:
Aspiration hazard: Asp. Tox. 1
Hazard Statements:
May be fatal if swallowed and enters airways.

### 2.2. Label elements

**Regulation (EC) No. 1272/2008**

**Hazard components for labelling**

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based; Baseoil - unspecified
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

| | |
|---|---|
| H304 | May be fatal if swallowed and enters airways. |

**Precautionary statements**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P260 | Do not breathe mist/vapours/spray. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. |
| P331 | Do NOT induce vomiting. |
| P405 | Store locked up. |
| P501 | Dispose of waste according to applicable legislation. |

**Special labelling of certain mixtures**

| | |
|---|---|
| EUH208 | Contains (4-nonylphenoxy)aceticacid. 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 material is combustible, but will not ignite readily.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Hazardous components**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 72623-86-0 | Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based; Baseoil - unspecified | | | 65 - < 70 % |
| | 276-737-9 | 649-482-00-X | 01-2119474878-16 | |
| | Asp. Tox. 1; H304 | | | |
| 1174522-45-2 | Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics | | | 30 - < 35 % |
| | 813-066-8 | | | |
| | Asp. Tox. 1; H304 | | | |
| 3115-49-9 | (4-nonylphenoxy)aceticacid | | | < 1 % |
| | 221-486-2 | | | |
| | Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H302 H314 H318 H317 H400 H410 | | | |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 3115-49-9 | 221-486-2 | (4-nonylphenoxy)aceticacid | < 1 % |
| | oral: ATE = 500 mg/kg M acute; H400: M=1<br>M chron.; H410: M=1 | | |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information**

First aider: Pay attention to self-protection! 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.

**After inhalation**

Provide fresh air. Call a doctor if you feel unwell.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Clean with detergents. Avoid solvent cleaners.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Immediately call a doctor. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

May be fatal if swallowed and enters airways. Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

### 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**

Water mist, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide (CO2).
Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

Full water jet

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

This material is combustible, but will not ignite readily.
In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Pyrolysis products, toxic.

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit

**Additional information**

Suppress gases/vapours/mists with water spray jet. 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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

### 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). 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

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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid: aerosol or mist formation. Use personal protection equipment.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

**Hints on joint storage**

Do not store together with: Acid, alkali (Base), Oxidising agent, Reducing agent.

**Further information on storage conditions**

storage temperature: +18 - +23°C

### 7.3. Specific end use(s)

Hydraulic (functional) fluids
PC-TEC-8: Hydraulic fluids, including brake and transmission fluids

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational exposure limits**

| CAS No | Substance | ppm | mg/m³ | fib/cm³ | Category | Origin |
|---|---|---|---|---|---|---|
| - | Mineral Oil pure, highly & severely refined (Inhalable) | - | 5 | | TWA (8 h) | |

### 8.2. Exposure controls


**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

**Protective and hygiene measures**

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, drink, smoke, sniff.

**Eye/face protection**

Wear eye protection/face protection. Eye glasses with side protection (DIN EN 166)

**Hand protection**

Wear suitable gloves tested to EN374.

NBR (Nitrile rubber). Thickness of glove material: 0,2 mm
Breakthrough time (maximum wearing time) > 480 min

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| Physical state: | Liquid |
| Colour: | green |
| Odour: | characteristic |
| Odour threshold: | not determined |
| pH-Value: | not applicable |

**Changes in the physical state**

| | |
|---|---|
| Melting point/freezing point: | < -50 °C |
| Boiling point or initial boiling point and boiling range: | > 290 °C |
| Flash point: | > 115 °C |

**Flammability**

| | |
|---|---|
| Solid: | not determined |
| Gas: | not applicable |

**Explosive properties**

The product is not: Explosive.

| | |
|---|---|
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |
| Auto-ignition temperature: | not determined |
| Decomposition temperature: | not determined |

**Oxidizing properties**

The product is not: oxidising.

| | |
|---|---|
| Vapour pressure: (at 20 °C) | 1,0 hPa |
| Density (at 20 °C): | 0,835 - 0,855 g/cm³ |
| Water solubility: | practically insoluble |

**Solubility in other solvents**

not determined

| | |
|---|---|
| Partition coefficient n-octanol/water: | not determined |
| Viscosity / kinematic: (at 40 °C) | 19,10 mm²/s |
| Relative vapour density: | not determined |

### 9.2. Other information

Kinematic viscosity (20°C): < 20,5 mm2/s.

## 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

Keep away from heat.

### 10.5. Incompatible materials

Acid, alkali (Base), Oxidising agent, Reducing agent.

### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Pyrolysis products, toxic.

## 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 | Dose | Species | Source | Method |
| 3115-49-9 | (4-nonylphenoxy)aceticacid | | | | |
| | oral | ATE 500 mg/kg | | | |

**Irritation and corrosivity**

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

**Sensitising effects**

Contains (4-nonylphenoxy)aceticacid. May produce an allergic reaction.

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

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

**STOT-single exposure**

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

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.
Provide fresh air. Call a doctor if you feel unwell.-Symptoms

**Aspiration hazard**

May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not: Ecotoxic.

### 12.2. Persistence and degradability

Not readily biodegradable (according to OECD criteria)

### 12.3. Bioaccumulative potential

The product has not been tested.

### 12.4. Mobility in soil

insoluble in: Water. If product enters soil, it will be mobile and may contaminate groundwater.

### 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.

**Further information**

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Hazardous waste according to Directive 2008/98/EC (waste framework directive). 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. |
| 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-TI/IATA-DGR)**

| | |
|---|---|
| 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 information available.

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

not applicable

## SECTION 15: Regulatory information

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

| | |
|---|---|
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 2 - obviously hazardous to water |

### 15.2. Chemical safety assessment

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

## SECTION 16: Other information

**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

| Classification | Classification procedure |
|---|---|
| Asp. Tox. 1; H304 | Calculation method |

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

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H400 | Very toxic to aquatic life. |

| | |
|---|---|
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH208 | Contains (4-nonylphenoxy)aceticacid. May produce an allergic reaction. |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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