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

1.1 Product identifier
- Trade name: DEE FO® 3010E/50

1.2 Relevant identified uses of the substance or mixture and uses advised against
- No further relevant information available.

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: MÜNZING CHEMIE GmbH
  Münzingstrasse 2
  74232 Abstatt, Germany
  E-Mail: info@munzing.com
  Tel.: +49 7131 987-100

- Further information obtainable from:
  Product Safety Department
  E-mail (MSDS): msds@munzing.com

1.4 Emergency telephone number:
- For Chemical Emergencies: CHEMTREC: +1 703 741 5970

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The product is not classified as hazardous, according to the CLP regulation.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008 Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void

2.3 Other hazards
- Results of PBT and vPvB assessment
  - PBT: None.
  - vPvB: None.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-55-8</td>
</tr>
<tr>
<td>EINECS: 265-158-7</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119487077-29</td>
</tr>
</tbody>
</table>

| CAS: 64742-53-6       | Distillates (petroleum), hydrotreated light naphthenic |
| EINECS: 265-156-6     | Asp. Tox. I, H304 |
| Reg.nr.: 01-2119480375-34 | 5-<10% |

- Additional information: For the wording of the listed hazard phrases refer to section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

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:
CO2, 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
Can form explosive gas-air mixtures.

5.3 Advice for firefighters

Protective equipment:
Do not inhale explosion gases or combustion gases.
Additional information
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.
Particular danger of slipping on leaked/spilled product.
Ensure adequate ventilation

6.2 Environmental precautions:
Dilute with plenty of water.
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).

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
Keep away from heat and direct sunlight.
Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:
Protect from heat.
Keep ignition sources away - Do not smoke.
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: Store away from oxidising agents.
- Further information about storage conditions: 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:

- CAS: 64742-55-8 Distillates (petroleum), hydrotreated light paraffinic
  ACGIH - TWA Long-term value: 5 mg/m³ mineral oil mist

- CAS: 64742-53-6 Distillates (petroleum), hydrotreated light naphthenic
  ACGIH-TWA Long-term value: 5 mg/m³ oil mist

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

8.2 Exposure controls

Personal protective equipment:
- General protective and hygienic measures:
  The usual precautionary measures are to be adhered to when handling chemicals.
  Avoid contact with the eyes and skin.
  Do not inhale gases / fumes / aerosols.
- Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed.
- Protection of hands:
  Only use chemical-protective gloves with CE-labelling of category III.
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
  Nitrile rubber, NBR
  Recommended thickness of the material: ≥ 0.4 mm
  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.
- Penetration time of glove material
  For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes
  (Permeation according to EN 16523-1:2015: Level 6).
  The determined penetration times according to EN 16523-1:2015 are not performed under practical
  conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is
  recommended.
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be
  observed.
- Eye protection: Safety glasses
**Trade name: DEE FO® 3010E/50**

- **Body protection:** Protective work clothing

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:** Fluid
    - **Colour:** Yellowish
    - **Odour:** Slight
    - **Odour threshold:** Not determined.
  - **pH-value (20 g/l) at 20 °C:** ≈ 7 (DIN ISO 976)
  - **Change in condition**
    - **Melting point/freezing point:** Undetermined.
    - **Initial boiling point and boiling range:** Undetermined.
  - **Flash point:** > 100 °C (DIN EN ISO 2719)
  - **Flammability (solid, gas):** Not applicable.
  - **Decomposition temperature:** Not determined.
  - **Auto-ignition temperature:** Product is not self-igniting.
  - **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
    - **Explosion limits:**
      - **Lower:** ≈ 0.6 Vol % (01-2119480132-48)
      - **Upper:** ≈ 6.5 Vol % (01-2119480132-48)
  - **Oxidising properties**
    - None.
  - **Vapour pressure:** Not determined.
  - **Density at 20 °C:** ≈ 0.87 g/cm³ (DIN EN ISO 2811-1)
  - **Relative density**
    - Not determined.
  - **Vapour density**
    - Not determined.
  - **Evaporation rate**
    - Not determined.
  - **Solubility in / Miscibility with water:** Dispersible.
  - **Partition coefficient: n-octanol/water:** Not determined.
  - **Viscosity:**
    - **Dynamic at 20 °C:** ≈ 500 mPas (DIN EN ISO 3219)
    - **Kinematic at 40 °C:** > 20.5 mm²/s (DIN EN ISO 51562)
  - **9.2 Other information**
    - No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
  - No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used and stored according to specifications.
Trade name: DEE FO® 3010E/50

10.3 Possibility of hazardous reactions
Flammable vapour-air mixtures may develop if stored in large receptacles and above room temperature.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>CAS: 64742-55-8 Distillates (petroleum), hydrotreated light paraffinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>&gt;5,000 mg/kg (rat)</td>
</tr>
<tr>
<td>&gt;5,000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 64742-53-6 Distillates (petroleum), hydrotreated light naphthenic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>&gt;5,000 mg/kg (rat)</td>
</tr>
<tr>
<td>&gt;5,000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

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

Reproductive toxicity 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.

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

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th>CAS: 64742-53-6 Distillates (petroleum), hydrotreated light naphthenic</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL50</td>
</tr>
<tr>
<td>&gt;100 mg/l (algae)</td>
</tr>
<tr>
<td>&gt;100 mg/l (daphnia)</td>
</tr>
</tbody>
</table>

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.

Ecotoxic effects:

Behaviour in sewage processing plants:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Do not release untreated into natural waters.

Additional ecological information:

General notes:

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

According to the criteria of the EU-classification and labelling "dangerous for environment"(93/21/EWG) the substance/ product has to be classified as non-hazardous for the environment.
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
  16 03 06 organic wastes other than those mentioned in 16 03 05

  · Uncleaned packaging:
  · Recommendation: Disposal must be made according to official regulations.
  · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number
  · ADR/RID/ADN, ADN, IMDG, IATA Void

· 14.2 UN proper shipping name
  · ADR/RID/ADN, ADN, IMDG, IATA Void

· 14.3 Transport hazard class(es)
  · ADR/RID/ADN, ADN, IMDG, IATA
  · Class Void

· 14.4 Packing group
  · ADR/RID/ADN, IMDG, IATA Void

· 14.5 Environmental hazards:
  · Marine pollutant: No

· 14.6 Special precautions for user
  Not applicable.

· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
  Not applicable.

· Transport/Additional information:
  Not a dangerous good to the above specifications.

· UN "Model Regulation": Void

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  · Directive 2012/18/EU
  · Named dangerous substances - ANNEX I None of the ingredients is listed.

(Contd. on page 7)
Trade name: DEE FO® 3010E/50

National regulations:
- Waterhazard class: Water hazard class 1 (German AwSV, Self-assessment): slightly 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
H304 May be fatal if swallowed and enters airways.

Department issuing SDS:
Product Safety Department
E-Mail: msds@munzing.com

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 Harmonised System of Classification and Labelling of Chemicals
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Asp. Tox. 1: Aspiration hazard – Category 1

* Data compared to the previous version altered.