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

- 1.1 Product identifier
  - Trade name: COETRANS Top coat silk-matt

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  - Application of the substance / the mixture
    - Coating

- 1.3 Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: KEMPER SYSTEM GmbH & Co. KG
    Holländische Strasse 32-36
    34246 Vellmar
    Deutschland / Germany
    Telefon: +49 (0)561 / 8295-0
    Telefax: +49 (0)561 / 8295-5110
    E-Mail: MSDS@KEMPER-SYSTEM.COM

- 1.4 Emergency telephone number:
  - Further information obtainable from:
    - Research and Development
    - Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
      Langenbeckstraße 1; Gebäude 601; 55131 Mainz
      Tel. Nr.: +49 (0)6131 / 19 24 0
    - Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008

GHS02 flame
Flam. Liq. 3  H226  Flammable liquid and vapour.

GHS08 health hazard
STOT RE 2  H373  May cause damage to organs through prolonged or repeated exposure.

GHS09 environment
Aquatic Chronic 2  H411  Toxic to aquatic life with long lasting effects.

GHS07
Eye Irrit. 2  H319  Causes serious eye irritation.
Skin Sens. 1  H317  May cause an allergic skin reaction.
STOT SE 3  H335-H336  May cause respiratory irritation. May cause drowsiness or dizziness.

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

The product is classified and labelled according to the CLP regulation.

GHS02  GHS07  GHS08  GHS09

- Signal word
  - Warning

- Hazard-determining components of labelling:
  - aliphatic polyisocyanate
  - hydrocarbons, C8, aromatic
  - Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)
  - Urethane bis Oxazolidine

- Hazard statements
  - H226  Flammable liquid and vapour.
  - H319  Causes serious eye irritation.
  - H317  May cause an allergic skin reaction.
  - H335-H336  May cause respiratory irritation. May cause drowsiness or dizziness.
  - H373  May cause damage to organs through prolonged or repeated exposure.
  - H411  Toxic to aquatic life with long lasting effects.

- Precautionary statements
  - P210  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)
Trade name: COETRANS Top coat silk-matt

SECTION 3: Composition/information on ingredients

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

- Dangerous components:
  - CAS: 265822-87-9 2-methoxy-1-methylethyl acetate
  - EC number: 12-5-10% 2-methoxy-1-methylethyl acetate
  - EINECS: 202-849-4 ethylbenzene
  - PBT: Not applicable.
  - vPvB: Not applicable.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT:
- vPvB:

- Additional information:

SECTION 4: First aid measures

- 4.1 Description of first aid measures
  - General information: Immediately remove any clothing soiled by the product.
  - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:
  - Supply fresh air and be sure call for a doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
  - Supply fresh air; consult doctor in case of complaints.

- After skin contact:
  - Immediately wash with water and soap and rinse thoroughly.
  - If symptoms persist consult doctor.

- After eye contact:
  - Rinse opened eye for several minutes under running water.
  - If symptoms persist consult doctor.

- After swallowing:
  - No further relevant information available.

(Contd. on page 3)
SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
  - Alcohol resistant foam
  - ABC powder

- **5.2 Special hazards arising from the substance or mixture**
  - During heating or in case of fire poisonous gases are produced.

- **5.3 Advice for firefighters**
  - Protective equipment:
    - Mouth respiratory protective device.
    - Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
  - Keep away from ignition sources.

- **6.2 Environmental precautions**
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Do not allow to enter sewers/ surface or ground water.
  - Prevent from spreading (e.g. by damming-in or oil barriers).

- **6.3 Methods and material for containment and cleaning up**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents

- **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**
  - Store in cool, dry place in tightly closed receptacles.
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
  - Use only in well ventilated areas.

- **7.2 Conditions for safe storage, including any incompatibilities**
  - Information about fire - and explosion protection:
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.

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

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**
  - 108-65-6 2-methoxy-1-methylethyl acetate
    - WEL: Short-term value: 548 mg/m³, 100 ppm
    - Long-term value: 274 mg/m³, 50 ppm

(Contd. on page 4)
## 42.0.1

| 1330-20-7 xylene WEL | Short-term value: 441 mg/m³, 100 ppm
| Sk; BMGV Long-term value: 220 mg/m³, 50 ppm |
| 100-41-4 ethylbenzene WEL | Short-term value: 552 mg/m³, 125 ppm
| Sk Long-term value: 441 mg/m³, 100 ppm |
| 4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate WEL | Short-term value: 0.07 mg/m³
| Sen; as -NCO Long-term value: 0.02 mg/m³ |

### DNELs

| 108-65-6 2-methoxy-1-methylethyl acetate |
| Dermal Long term - systemic effects | 153.5 mg/kg (worker) |
| Inhalative Long term - systemic effects | 275 mg/m³ (worker) |
| 1330-20-7 xylene Dermal Long term - systemic effects | 180 mg/kg (worker) |
| Inhalative Long term - systemic effects | 289 mg/m³ (worker) |
| Acute - systemic effects | 289 mg/m³ (worker) |
| Long term - systemic effects | 77 mg/m³ (worker) |

### Ingredients with biological limit values:

| 1330-20-7 xylene 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.
    - Avoid contact with the eyes and skin.
  - **Respiratory protection:**
    - Use suitable respiratory protective device when high concentrations are present.
    - Not necessary if room is well-ventilated.
  - **Protection of hands:**
    - **Protective gloves**
      - 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.
      - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
      - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - **Material of 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.
      - 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.
      - Recommended thickness of the material: ≥ 0.4 mm
      - Synthetic rubber gloves
    - **Penetration time of glove material**
      - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
      - The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
    - **Eye protection:**
      - Tightly sealed goggles
    - **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: According to product specification
  - Odour: Characteristic
  - Odour threshold: Not determined.
  - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- Flash point: 24 °C
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature:
  - Decomposition temperature: Not determined.
  - Self-igniting: Product is not self-igniting.
  - Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Density at 20 °C: 1.03 g/cm³
- 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:
  - Dynamic: Not determined.
  - Kinematic at 20 °C: 84 s (ISO 6 mm)
- Solvent content:
  - VOC (EC): 38.70 %
  - 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 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: 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:
  - hydrocarbons, C9, aromatic
  - Oral LD50 >2000 mg/kg (rat)
  - Dermal LD50 >2000 mg/kg (rabbit)
  - 59719-67-4 Urethane bis Oxazolidine
  - Oral LD50 >5000 mg/kg (rat)
Trade name: COETRANS Top coat silk-matt

<table>
<thead>
<tr>
<th>Component</th>
<th>Route of Exposure</th>
<th>LD50 Value (mg/kg)</th>
<th>Species/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>53880-05-0 Isophorondiisocyanate homopolymer</td>
<td>Oral, Dermal</td>
<td>2000, &gt;14000</td>
<td>Rat</td>
</tr>
<tr>
<td>108-65-4 2-methoxy-1-methylethyl acetate</td>
<td>Oral, Dermal, Inh</td>
<td>5532, 5000, 35.7</td>
<td>Rat, Rabbit, Rat</td>
</tr>
<tr>
<td>1330-20-7 xylene</td>
<td>Oral, Dermal, Inh</td>
<td>5251, 4300, 6350</td>
<td>Mouse, Rabbit, Rat</td>
</tr>
<tr>
<td>Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)</td>
<td>Oral, Dermal</td>
<td>&gt;15000, &gt;3400</td>
<td>Rat, Rabbit</td>
</tr>
<tr>
<td>100-41-4 ethylbenzene</td>
<td>Oral, Dermal, Inh</td>
<td>3500, 17800, 11</td>
<td>Rat, Rabbit, ATE</td>
</tr>
<tr>
<td>26488-60-8 2-ethylhexyl (6-isocyanatoxyethyl)-carbamate</td>
<td>Oral, Dermal</td>
<td>&gt;2.500</td>
<td>Rat</td>
</tr>
<tr>
<td>25550-51-0 hexahydomethylphthalic anhydride</td>
<td>Oral, Dermal, Inh</td>
<td>&gt;5000</td>
<td>Rat</td>
</tr>
<tr>
<td>4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate</td>
<td>Dermal</td>
<td>&gt;7000</td>
<td>Rat (OECD-Prüfrichtlinie 402)</td>
</tr>
<tr>
<td>41556-26-7 bis(1,2,2,6,6-pentamethyl-4-piperidyl)-sebacate</td>
<td>Oral</td>
<td>&gt;2300</td>
<td>Rat</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Serious eye damage/irritation: Causes serious eye irritation.
  - Respiratory or skin sensitisation: May cause an allergic skin reaction.
  - CMR effects (carcinogenity, 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: May cause respiratory irritation. May cause drowsiness or dizziness.
    - STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.
    - Aspiration hazard: Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **Aquatic toxicity:**
  - 59719-67-4 Urethane bis Oxazolidine
    - EC50/48 h: 87.1 mg/l (Daphnia magna)
    - EC50/72h: 18.6 mg/l (Selenastrum capricornutum)
  - 53880-05-0 Isophorondiisocyanate homopolymer
    - LC50/96 h: >1.51 mg/l (Daphnia magna) (Richtlinie 67/548/EWG, Anhang V, C.1.)
    - EC50/48 h: >3.36 mg/l (Daphnia magna) (OECD-Prüfrichtlinie 202)
    - EC50/3h: >10000 mg/l (Belebtschlamm (freshwater)) (OECD-Prüfrichtlinie 209)
  - 108-65-4 2-methoxy-1-methylethyl acetate
    - LC50/96 h: >100 mg/l (oryzias latipes (Herring))
      - 161 mg/l (fls)
Trade name: COETRANS Top coat silk-matt

### 13.2 Persistence and degradability
No further relevant information available.

### 13.3 Bioaccumulative potential
No further relevant information available.

### 13.4 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

### 13.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **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
- **08 04 09** waste adhesives and sealants containing organic solvents or other hazardous substances
- **08 04 10** waste adhesives and sealants other than those mentioned in 08 04 09

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

### SECTION 14: Transport information
- **14.1 UN-Number**
  - **ADR, IMDG, IATA:** UN1263
- **14.2 UN proper shipping name**
  - **ADR, IMDG, IATA:** 1263 PAINT, ENVIRONMENTALLY HAZARDOUS
  - **Category**:
    - **ADR**
    - **IMDG**
    - **IATA**
  - **PAINT** (hydrocarbons, C9, aromatic, Urethane bis Oxazolidine), MARINE POLLUTANT
  - **Paint**

#### Transport hazard class(es)
- **ADR**

- **Class:** 3 (F1) Flammable liquids.
Trade name: COETRANS Top coat silk-matt

- Label
  - IMDG
    - Class 3 Flammable liquids.
  - IATA
    - Class 3 Flammable liquids.

- 14.4 Packing group
  - ADR, IMDG, IATA
    - III

- 14.5 Environmental hazards:
  - Product contains environmentally hazardous substances: bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
  - Marine pollutant:
    - Yes
      - Symbol (fish and tree)
  - Special marking (ADR):
    - Symbol (fish and tree)

- 14.6 Special precautions for user
  - Warning: Flammable liquids.
  - Danger code (Kemler):
    - 30
  - EMS Number:
    - F-E,S-E
  - Stowage Category
    - A

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

- Transport/Additional information:
  - ADR
    - Limited quantities (LQ)
      - 5L
        - Code: E1
          - Maximum net quantity per inner packaging: 30 ml
          - Maximum net quantity per outer packaging: 1000 ml
    - Excepted quantities (EQ)
      - Code: E1
        - Maximum net quantity per inner packaging: 30 ml
        - Maximum net quantity per outer packaging: 1000 ml
  - Transport category
    - III
  - Tunnel restriction code
    - D/E
  - IMDG
    - Limited quantities (LQ)
      - 5L
        - Code: E1
          - Maximum net quantity per inner packaging: 30 ml
          - Maximum net quantity per outer packaging: 1000 ml
  - Excepted quantities (EQ)

- UN "Model Regulation":
  - UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

- Named dangerous substances - ANNEX I
  - E2 Hazardous to the Aquatic Environment
  - P5c FLAMMABLE LIQUIDS

- Seveso category
  - None of the ingredients is listed.

- Qualifying quantity (tonnes) for the application of lower-tier requirements
  - 200 t

- Qualifying quantity (tonnes) for the application of upper-tier requirements
  - 500 t

- National regulations:
  - None of the ingredients is listed.

- Other regulations, limitations and prohibitive regulations
  - None of the ingredients is listed.

Substances of very high concern (SVHC) according to REACH, Article 57

- 25550-51-0 hexahydromethylphthalic anhydride

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.
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
  H318 Causes serious eye damage.
  H319 Causes serious eye irritation.
  H330 Fatal if inhaled.
  H331 Toxic if inhaled.
  H332 Hazardous if inhaled.
  H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  H335 May cause respiratory irritation.
  H336 May cause drowsiness or dizziness.
  H372 Causes damage to organs through prolonged or repeated exposure.
  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.

- Department issuing MSDS:
  research & development

- Contact:
  research & development

- Abbreviations and acronyms:

  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ICAO: International Civil Aviation Organisation
  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
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  DNEL: Derived No-Effect Level (REACH)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  SVHC: Substances of Very High Concern
  vPvB: very Persistent and very Bioaccumulative
  Flam. Liq. 2: Flammable liquids, Hazard Category 2
  Flam. Liq. 3: Flammable liquids, Hazard Category 3
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Acute Tox. 2: Acute toxicity, Hazard Category 2
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
  Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  Skin Sens. 1B: Sensitisation - Skin, Hazard Category 1B
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
  STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
  Asp. Tox. 1: Aspiration hazard, Hazard Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

* Data compared to the previous version altered.