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

1.1 Product identifier
- Trade name: LUBA-print® C 10/XB
- UFI: DPF0-Q05Y-J00J-X7G6

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the mixture: Wax additive for paints and printing inks

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
  Flam. Liq. 3 H226 Flammable liquid and vapour.
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Irrit. 2 H319 Causes serious eye irritation.
  STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
  The product is classified and labelled according to the CLP regulation.
- Hazard pictograms
  ![GHS02](image)
  ![GHS07](image)
  ![GHS08](image)

- Signal word: Danger

- Hazard-determining components of labelling:
  - xylene
  - ethylbenzene
  - n-butyl acetate

- Hazard statements
  - H226 Flammable liquid and vapour.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
  - H373 May cause damage to organs through prolonged or repeated exposure.
  - H304 May be fatal if swallowed and enters airways.

(Contd. on page 2)
After swallowing:

Do not induce vomiting; call for medical help immediately.

Immediately wash with water and soap and rinse thoroughly.

20-50% xylene

EINECS: 215-535-7
Reg.nr.: 01-2119488216-32
Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335

20-50% n-butyl acetate

EINECS: 204-658-1
Reg.nr.: 01-2119485493-29
Flam. Liq. 3, H226; STOT SE 3, H336

10-20% ethylbenzene

EINECS: 202-849-4
Reg.nr.: 01-2119489370-35
Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332

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:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Immediately remove any clothing soiled by the product.

After inhalation:
Take affected persons into fresh air and keep quiet. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

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: Do not induce vomiting; call for medical help immediately.

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

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture: No further relevant information available.
- 5.3 Advice for firefighters
- Protective equipment:
  Do not inhale explosion gases or combustion gases.
  - Mouth respiratory protective device.
- 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
  - Ensure adequate ventilation
  - Keep away from ignition sources.
  - Wear protective clothing.
  - Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
  - Do not allow to penetrate the ground/soil.
  - 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).
  - 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.
- Information about fire - and explosion protection:
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Store away from oxidising agents.
### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

<table>
<thead>
<tr>
<th>CAS: 1330-20-7 xylene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
<td>Short-term value: 441 mg/m³, 100 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 220 mg/m³, 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Sk; BMGV</td>
</tr>
<tr>
<td>CAS: 123-86-4 n-butyl acetate</td>
<td></td>
</tr>
<tr>
<td>WEL</td>
<td>Short-term value: 966 mg/m³, 200 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 724 mg/m³, 150 ppm</td>
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<tr>
<td>CAS: 100-41-4 ethylbenzene</td>
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</tr>
<tr>
<td>WEL</td>
<td>Short-term value: 552 mg/m³, 125 ppm</td>
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<tr>
<td></td>
<td>Long-term value: 441 mg/m³, 100 ppm</td>
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</tbody>
</table>

### DNELs

<table>
<thead>
<tr>
<th>CAS: 1330-20-7 xylene</th>
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</tr>
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<tbody>
<tr>
<td>Oral</td>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>1.6 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Dermal</td>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>180 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>108 mg/kg bw/day (human)</td>
</tr>
<tr>
<td></td>
<td>worker, short-term exposure, local effects</td>
</tr>
<tr>
<td></td>
<td>77 mg/m³ (human)</td>
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<tr>
<td></td>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>289 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>consumer, short-term exposure, local effects</td>
</tr>
<tr>
<td></td>
<td>14.8 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>174 mg/m³ (human)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 123-86-4 n-butyl acetate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalative</td>
<td>worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>480 mg/m³ (human)</td>
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<tr>
<td></td>
<td>worker, short-term exposure, local effects</td>
</tr>
<tr>
<td></td>
<td>960 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>consumer, long-term exposure, systemic effects</td>
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<td></td>
<td>102.34 mg/m³ (human)</td>
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<td>859.7 mg/m³ (human)</td>
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<tr>
<td></td>
<td>1.6 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Dermal</td>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>180 mg/kg bw/day (human)</td>
</tr>
<tr>
<td></td>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>108 mg/kg bw/day (human)</td>
</tr>
<tr>
<td></td>
<td>worker, short-term exposure, local effects</td>
</tr>
<tr>
<td></td>
<td>77 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td></td>
<td>289 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>consumer, short-term exposure, local effects</td>
</tr>
<tr>
<td></td>
<td>14.8 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>174 mg/m³ (human)</td>
</tr>
</tbody>
</table>

### PNECs

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<tr>
<td>fresh water</td>
<td>0.327 mg/l (not specified)</td>
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</tbody>
</table>
Trade name: LUBA-print® C 10/XB

<table>
<thead>
<tr>
<th>Marine water</th>
<th>0.327 mg/l (not specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqua - intermittent release</td>
<td>0.327 mg/l (not specified)</td>
</tr>
<tr>
<td>Soil</td>
<td>2.31 mg/kg (not specified)</td>
</tr>
<tr>
<td>Sediment (fresh water)</td>
<td>12.46 mg/kg (not specified)</td>
</tr>
<tr>
<td>Sediment (marine water)</td>
<td>12.46 mg/kg (not specified)</td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>6.58 mg/l (not specified)</td>
</tr>
</tbody>
</table>

CAS: 123-86-4 n-butyl acetate

| Fresh water   | 0.18 mg/l (not specified) |
| Marine water  | 0.018 mg/l (not specified) |
| Soil          | 0.0903 mg/kg (not specified) |
| Sediment (fresh water) | 0.981 mg/kg (not specified) |
| Sediment (marine water) | 0.0981 mg/kg (not specified) |
| Sewage treatment plant | 35.6 mg/l (not specified) |

**CAS: 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:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

Protective gloves

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**

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.5 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.

**Eye protection:** Tightly sealed goggles

(Contd. of page 6)
### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:** Fluid
  - **Odour:** Specific type
  - **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** ≈ 126 °C (n-butyl acetate)
- **Flash point:** ≈ 28 °C (DIN EN ISO 2719)
- **Flammability (solid, gas):** Not applicable.
- ** Ignition temperature:** ≈ 390 °C (n-butyl acetate)
- **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:** ≈ 1 Vol % (xylene)
  - **Upper:** ≈ 7.5 Vol % (n-butyl acetate)
- **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:** Insoluble.
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
  - **Dynamic at 23 °C:** ≈ 20 mPas (DIN EN ISO 3219)
  - **Kinematic at 40 °C:** < 20.5 mm²/s (DIN EN ISO 51562)
- **Solvent separation test:** Not determined
- **9.2 Other information**
  - No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
  - No further relevant information available.
SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>CAS: 1330-20-7 xylene</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong> LD50</td>
</tr>
<tr>
<td><strong>Dermal</strong> LD50</td>
</tr>
<tr>
<td><strong>Inhalative</strong> LC50/4h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 123-86-4 n-butyl acetate</th>
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<tbody>
<tr>
<td><strong>Oral</strong> LD50</td>
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<tr>
<td><strong>Dermal</strong> LD50</td>
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<tr>
<td><strong>Inhalative</strong> LC50/4h</td>
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<table>
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<tr>
<th>CAS: 100-41-4 ethylbenzene</th>
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<tbody>
<tr>
<td><strong>Oral</strong> LD50</td>
</tr>
<tr>
<td><strong>Dermal</strong> LD50</td>
</tr>
<tr>
<td><strong>Inhalative</strong> LC50/4h</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
- Skin corrosion/irritation
  Causes skin irritation.
- Serious eye damage/irritation
  Causes serious eye irritation.
- 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
  May cause respiratory irritation. May cause drowsiness or dizziness.
- STOT-repeated exposure
  May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard
  May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Aquatic toxicity:</th>
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</thead>
<tbody>
<tr>
<td><strong>CAS: 1330-20-7 xylene</strong></td>
</tr>
<tr>
<td>EC50</td>
</tr>
<tr>
<td>LC50</td>
</tr>
</tbody>
</table>

(Contd. of page 6)
12.6 Other adverse effects

<table>
<thead>
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<th>CAS: 123-86-4 n-butyl acetate</th>
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</thead>
<tbody>
<tr>
<td><strong>EC50</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>LC50</strong></td>
</tr>
<tr>
<td><strong>IC50</strong></td>
</tr>
<tr>
<td><strong>NOEC</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 100-41-4 ethylbenzene</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EC50 (static)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>LC50</strong></td>
</tr>
<tr>
<td><strong>NOEC</strong></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.

Ecotoxical effects:

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:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment
According to Annex XIV of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification.

12.6 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

07 07 04* other organic solvents, washing liquids and mother liquors

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, IMDG, IATA UN1993

- 14.2 UN proper shipping name
  - ADR/RID/ADN 1993 FLAMMABLE LIQUID, N.O.S. (XYLENES, ETHYLBENZENE)
  - IMDG, IATA FLAMMABLE LIQUID, N.O.S. (XYLENES, ETHYLBENZENE)

- 14.3 Transport hazard class(es)
  - ADR/RID/ADN, IMDG, IATA
    - Class 3 Flammable liquids.
    - Label 3

- 14.4 Packing group
  - ADR/RID/ADN, IMDG, IATA III

- 14.5 Environmental hazards:
  - Not applicable.

- 14.6 Special precautions for user
  - Warning: Flammable liquids.
  - Hazard identification number (Kemler code): 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:

<table>
<thead>
<tr>
<th>ADR/RID/ADN</th>
<th>Limited quantities (LQ)</th>
<th>Transport category</th>
<th>Tunnel restriction code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5L</td>
<td>3</td>
<td>D/E</td>
</tr>
</tbody>
</table>

- 14.8 UN "Model Regulation":
  - UN 1993 FLAMMABLE LIQUID, N.O.S. (XYLENES, ETHYLBENZENE), 3, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Directive 2012/19/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - Seveso category P5c FLAMMABLE LIQUIDS
  - Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
  - National regulations:

- Information about limitation of use:
  Employment restrictions concerning juveniles must be observed.
Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
LD50: Lethal dose, 50 percent
CAS: Chemical Abstracts Service (division of the American Chemical Society)
SEVESO: Largequantity of substances or articles dangerous to the environment in transport

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.
  H319 Causes serious eye irritation.
  H332 Harmful if inhaled.
  H335 May cause respiratory irritation.
  H336 May cause drowsiness or dizziness.
  H373 May cause damage to organs through prolonged or repeated exposure.

- 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
  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)
  DNEL: Derived No-Effect Level (REACH)
  PNEC: Predicted No-Effect Concentration (REACH)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Flam. Liq. 2: Flammable liquids – Category 2
  Flam. Liq. 3: Flammable liquids – Category 3
  Acute Tox. 4: Acute toxicity - dermal – Category 4
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
  Asp. Tox. 1: Aspiration hazard – Category 1

* Data compared to the previous version altered.