1.4 Emergency telephone number: For Chemical Emergencies: CHEMTREC: +1 703 741 5970
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture consisting of the following components.

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Reg.nr.</th>
<th>Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330-20-7</td>
<td>215-535-7</td>
<td>01-2119488216-32</td>
<td>xylene</td>
<td>20-50%</td>
</tr>
<tr>
<td>100-41-4</td>
<td>202-849-4</td>
<td>01-2119489370-35</td>
<td>ethylbenzene</td>
<td>10-20%</td>
</tr>
<tr>
<td>78-83-1</td>
<td>201-148-0</td>
<td>01-2119484609-23</td>
<td>2-methylpropan-1-ol</td>
<td>5-&lt;10%</td>
</tr>
</tbody>
</table>

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.

After inhalation:
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:
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.

(Contd. on page 3)
7.3 Specific end use(s)

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Keep away from heat and direct sunlight.
Store in cool, dry place in tightly closed receptacles.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect from heat.
Fumes can combine with air to form an explosive mixture.
Protect against electrostatic charges.

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: 1330-20-7 xylene**

- **WEL**: Short-term value: 441 mg/m³, 100 ppm  
  Long-term value: 220 mg/m³, 50 ppm  
  Sk: BMGV

**CAS: 100-41-4 ethylbenzene**

- **WEL**: Short-term value: 552 mg/m³, 125 ppm  
  Long-term value: 441 mg/m³, 100 ppm  
  Sk

**CAS: 78-83-1 2-methylpropan-1-ol**

- **WEL**: Short-term value: 231 mg/m³, 75 ppm  
  Long-term value: 154 mg/m³, 50 ppm

#### DNELs

**CAS: 1330-20-7 xylene**

- Oral: consumer, long-term exposure, systemic effects 1.6 mg/kg bw/day (human)  
  Dermal: worker, long-term exposure, systemic effects 180 mg/kg bw/day (human)  
  Inhalative: worker, long-term exposure, systemic effects 77 mg/m³ (human)  
    worker, short-term exposure, local effects 289 mg/m³ (human)  
    consumer, long-term exposure, systemic effects 14.8 mg/m³ (human)  
    consumer, short-term exposure, local effects 174 mg/m³ (human)

**CAS: 100-41-4 ethylbenzene**

- Oral: consumer, long-term exposure, systemic effects 1.6 mg/kg bw/day (human)  
  Dermal: worker, long-term exposure, systemic effects 180 mg/kg bw/day (human)  
  Inhalative: worker, long-term exposure, systemic effects 77 mg/m³ (human)  
    worker, short-term exposure, local effects 289 mg/m³ (human)  
    consumer, long-term exposure, systemic effects 14.8 mg/m³ (human)  
    consumer, short-term exposure, local effects 174 mg/m³ (human)

**CAS: 78-83-1 2-methylpropan-1-ol**

- Oral: consumer, long-term exposure, systemic effects 25 mg/kg bw/day (human)  
  Inhalative: consumer, long-term exposure, systemic effects 310 mg/m³ (human)  
    consumer, long-term exposure, systemic effects 55 mg/m³ (human)

#### PNECs

**CAS: 1330-20-7 xylene**

- Fresh water: 0.327 mg/l (not specified)  
  Marine water: 0.327 mg/l (not specified)  
  Aqua - intermittent release: 0.327 mg/l (not specified)  
  Soil: 2.31 mg/kg (not specified)  
  Sediment (fresh water): 12.46 mg/kg (not specified)  
  Sediment (marine water): 12.46 mg/kg (not specified)  
  Sewage treatment plant: 6.58 mg/l (not specified)

(Contd. on page 5)
Recommended thickness of the material:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality

The lists valid during the making were used as basis.

Eye protection:

Medium: urine

Soil 0.0699 mg/kg (not specified)

Sediment (soil) 0.152 mg/kg (not specified)

Sediment (marine water) 1.52 mg/kg (not specified)

Sediment (fresh water) 0.152 mg/kg (not specified)

Sediment (marine water) 10 mg/l (not specified)

Thus a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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.

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. 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.

Fluorocarbon rubber (Viton)

Recommended thickness of the material: ≥ 0.4 mm

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 374 Part 3: Level 6).

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:** Brown
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** ≈137 °C
- **Flash point:** ≈25 °C (DIN EN ISO 2719)
- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.
- **Oxidising properties**
  - **None**
- **Vapour pressure:** Not determined.
- **Density at 20 °C:** ≈0.93 g/cm³ (DIN EN ISO 2811-1)
- **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 at 20 °C:** ≈ 20 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.
- **10.3 Possibility of hazardous reactions**
  - Forms explosive gas mixture with air.
  - Explosive reaction with oxidising agents such as calcium chlorate and or peroxides.
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: 1330-20-7 xylene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>4,300 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>2,000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative LC50/4h</td>
<td>11 mg/l (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 100-41-4 ethylbenzene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>3,500 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>17,800 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative LC50/4h</td>
<td>17.2 mg/l (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 78-83-1 2-methylpropan-1-ol</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>2,460 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>2,460 mg/kg (rabbit) (OECD 402)</td>
</tr>
<tr>
<td>Inhalative LC50/4h</td>
<td>24.6 mg/l (rat)</td>
</tr>
</tbody>
</table>

Primary irritant effect:

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye damage.

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.

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

Aquatic toxicity:

<table>
<thead>
<tr>
<th>CAS: 1330-20-7 xylene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
<td>2.2 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)</td>
</tr>
<tr>
<td>LC50</td>
<td>2.6 mg/l (fish) (Oncorhynchus mykiss / 96 h)</td>
</tr>
<tr>
<td>IC50</td>
<td>1 mg/l (daphnia) (Daphnia magna / 24 h)</td>
</tr>
<tr>
<td>NOEC</td>
<td>0.44 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)</td>
</tr>
</tbody>
</table>
Trade name: METOLAT® LA 524

CAS: 100-41-4 ethylbenzene

EC50 (static) 5.4 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)
> 12 mg/l (bacteria) (Pseudomonas putida / 16 h)
2.4 mg/l (daphnia) (Daphnia magna / 48 h)
LC50 12.1 mg/l (fish) (Pimephales promelas / 96 h)
NOEC 3.4 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)

CAS: 78-83-1 2-methylpropan-1-ol

EC50 1.250 mg/l (alga) (green alga / 48 h)
1.030 mg/l (daphnia) (Daphnia magna / 48 h)
EC10 750 mg/l (bacteria) (Pseudomonas putida / 16 h)
LC50 1.430 mg/l (fish) (Pimephales promelas / 96 h)

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.
Ecotoxicological 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:
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 01 04* other organic solvents, washing liquids and mother liquors

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

SECTION 14: Transport information
14.1 UN-Number
ADR/RID/ADN, IMDG, IATA UN1993
Trade name: METOLAT® LA 524

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

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:
  - Marine pollutant: No

14.6 Special precautions for user
  - Danger code (Kemler): Warning: Flammable liquids.
  - 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.

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.
  - 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.
    Employment restrictions concerning pregnant and lactating women must be observed.
  - Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
**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.
  - H318 Causes serious eye damage.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
  - H35 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 – Category 4
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
  - 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

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Abbreviations and acronyms:

- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- 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
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