Annex - Exposure Scenario

Summary of Exposure Scenarios

The annex is part of the safety data sheet. Separate page numbering is due to technical reasons.

ES 1 ............................................................................................................................................. 3

Use in coatings
SU 3; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9,
PROC10, PROC13, PROC14, PROC15; ERC4

ES 2 ............................................................................................................................................. 6

Use in lubricants
SU 3; PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10,
PROC13, PROC17, PROC18; ERC4, ERC7

ES 3 ............................................................................................................................................. 9

Binding agents
SU 3; PROC1, PROC2, PROC3, PROC4, PROC6, PROC7, PROC8b, PROC10, PROC13,
PROC14; ERC4

ES 4 ............................................................................................................................................. 12

Use as laboratory reagent
SU 3; PROC10, PROC15; ERC2, ERC4

ES 5 ............................................................................................................................................. 15

Manufacture
SU 3; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC15; ERC1, ERC4

ES 6 ............................................................................................................................................. 18

Distribution of substance
SU 3; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15; ERC1, ERC2,
ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7

ES 7 ............................................................................................................................................. 21

Formulation [mixing] of preparations and/or re-packing (excluding alloys)
SU 3; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14,
PROC15; ERC2

ES 8 ............................................................................................................................................. 24

Metal working fluids
SU 3; PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9,
PROC10, PROC13, PROC17; ERC4

ES 9 ............................................................................................................................................. 27

Use in coatings
SU 22; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10,
PROC11, PROC13, PROC15, PROC19; ERC8a, ERC8d

ES 10 .......................................................................................................................................... 30

Use in lubricants
SU 22; PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11,
PROC13, PROC17, PROC18, PROC20; ERC8a, ERC8d, ERC9a, ERC9b

ES 11 .......................................................................................................................................... 33

Binding agents
SU 22; PROC1, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b, PROC10, PROC11,
PROC14; ERC8a, ERC8d
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

ES 12 ........................................................................................................................................ 36
Polymer processing
    SU 22; PROC1, PROC2, PROC6, PROC8a, PROC8b, PROC14, PROC21; ERC8a, ERC8d
ES 13 ........................................................................................................................................ 39
Fuels
    SU 22; PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16; ERC9a, ERC9b
ES 14 ........................................................................................................................................ 42
Use as laboratory reagent
    SU 22; PROC10, PROC15; ERC8a
ES 15 ........................................................................................................................................ 45
Propellant
    SU 22; PROC11; ERC8a, ERC8d
ES 16 ........................................................................................................................................ 48
Metal working fluids
    SU 22; PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11,
    PROC13, PROC17; ERC8a, ERC8d
ES 17 ........................................................................................................................................ 51
Use in roads and construction
    SU 22; PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13; ERC8d, ERC8f
ES 18 ........................................................................................................................................ 54
Use in coatings
    SU 21; PC1, PC4, PC8, PC9a, PC9b, PC9c, PC15, PC18, PC23, PC24, PC31, PC34; ERC8a,
    ERC8d
ES 19 ........................................................................................................................................ 57
Use in lubricants
    SU 21; PC1, PC24, PC31; ERC8a, ERC8d
ES 20 ........................................................................................................................................ 60
Propellant
    SU 21; PC1, PC3, PC4, PC9a, PC24, PC31, PC35, PC0; ERC8a, ERC8d
ES 21 ........................................................................................................................................ 63
Use as fuel
    SU 21; PC13; ERC9b, ERC9a
ES 22 ........................................................................................................................................ 66
Consumer uses, Other
    SU 21; PC28, PC39; ERC8a, ERC8d
ES 1

1. Short title of Exposure Scenario:
Use in coatings

Main User Groups : SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites

Process categories : PROC1: Use in closed process, no likelihood of exposure
PROC2: Use in closed, continuous process with occasional controlled exposure
PROC3: Use in closed batch process (synthesis or formulation)
PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC7: Industrial spraying
PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC10: Roller application or brushing
PROC13: Treatment of articles by dipping and pouring
PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation
PROC15: Use as laboratory reagent

Environmental Release Categories : ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

Remarks : In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics : Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100% (unless stated differently).

Amount used : Daily amount per site : Not relevant / not applicable
Remarks : Not relevant / not applicable
Annual amount per site : Not relevant / not applicable
Remarks : Not relevant / not applicable
Fraction of EU tonnage used in region : Not relevant / not applicable
Remarks : Not relevant / not applicable
Other given operational conditions affecting environmental exposure

Number of emission days per year: Not relevant / not applicable
Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant: Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics

Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use): liquid

Frequency and duration of use/exposure

Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure

End Use: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment

Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>
4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Health

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
**ES 2**

**1. Short title of Exposure Scenario:**

Use in lubricants

| Main User Groups | SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites |
| Process categories | PROC1: Use in closed process, no likelihood of exposure |
| | PROC2: Use in closed, continuous process with occasional controlled exposure |
| | PROC3: Use in closed batch process (synthesis or formulation) |
| | PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises |
| | PROC7: Industrial spraying |
| | PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at non-dedicated facilities |
| | PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at dedicated facilities |
| | PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) |
| | PROC10: Roller application or brushing |
| | PROC13: Treatment of articles by dipping and pouring |
| | PROC17: Lubrication at high energy conditions and in partly open process |
| | PROC18: Greasing at high energy conditions |

| Environmental Release Categories | ERC4: Industrial use of processing aids in processes and products, not becoming part of articles |
| | ERC7: Industrial use of substances in closed systems |

| Remarks | In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment. For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS. Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use. |

**2.1 Contributing scenario controlling environmental exposure for:**

- All ERCs listed in chapter 1

**Product characteristics**

| Concentration of the Substance in Mixture/Article | Covers the percentage of the substance in the product up to 100 % (unless stated differently). |

**Amount used**

| Daily amount per site | Not relevant / not applicable |
| Remarks | Not relevant / not applicable |
| Annual amount per site | Not relevant / not applicable |
| Remarks | Not relevant / not applicable |
| Fraction of EU tonnage used in region | Not relevant / not applicable |
| Remarks | Not relevant / not applicable |
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Other given operational conditions affecting environmental exposure
Number of emission days per year: Not relevant / not applicable
Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use): liquid

Frequency and duration of use/exposure
Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
# EC-SAFETY DATA SHEET

## HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

### Version: 1.00  Revision Date 28.09.2015

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Acute dermal systemic exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
ES 3

1. Short title of Exposure Scenario:

Binding agents

<table>
<thead>
<tr>
<th>Main User Groups</th>
<th>SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process categories</td>
<td>PROC1: Use in closed process, no likelihood of exposure</td>
</tr>
<tr>
<td></td>
<td>PROC2: Use in closed, continuous process with occasional controlled exposure</td>
</tr>
<tr>
<td></td>
<td>PROC3: Use in closed batch process (synthesis or formulation)</td>
</tr>
<tr>
<td></td>
<td>PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises</td>
</tr>
<tr>
<td></td>
<td>PROC6: Calendering operations</td>
</tr>
<tr>
<td></td>
<td>PROC7: Industrial spraying</td>
</tr>
<tr>
<td></td>
<td>PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/large containers at dedicated facilities</td>
</tr>
<tr>
<td></td>
<td>PROC10: Roller application or brushing</td>
</tr>
<tr>
<td></td>
<td>PROC13: Treatment of articles by dipping and pouring</td>
</tr>
<tr>
<td></td>
<td>PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Release Categories</th>
<th>ERC4: Industrial use of processing aids in processes and products, not becoming part of articles</th>
</tr>
</thead>
</table>

Remarks: In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment. For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS. Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:

\(-\) All ERCs listed in chapter 1

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Concentration of the Substance in Mixture/Article</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Covers the percentage of the substance in the product up to 100 % (unless stated differently).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount used</th>
<th>Daily amount per site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remarks</td>
<td>Not relevant / not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual amount per site</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fraction of EU tonnage used in region</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other given operational conditions affecting environmental exposure</th>
<th>Number of emission days per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid

Frequency and duration of use/exposure
Remarks : Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use : Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice : Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

**Version:** 1.00  
**Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Acute inhalation systemic exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
</tr>
</tbody>
</table>

4. **Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
## ES 4

### 1. Short title of Exposure Scenario:
Use as laboratory reagent

| Main User Groups | : SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites |
| Process categories | : PROC10: Roller application or brushing |
| Environmental Release Categories | : ERC2: Formulation of preparations |

**Remarks:**
- In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
- For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
- Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s):
  - Not relevant / not applicable. Qualitative approach used to conclude safe use.

### 2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

**Product characteristics**

| Concentration of the Substance in Mixture/Article | Covers the percentage of the substance in the product up to 100 % (unless stated differently). |
| Daily amount per site | : Not relevant / not applicable |
| Annual amount per site | : Not relevant / not applicable |
| Fraction of EU tonnage used in region | : Not relevant / not applicable |

**Other given operational conditions affecting environmental exposure**

| Number of emission days per year | : Not relevant / not applicable |
| Remarks | : Not relevant / not applicable |

**Conditions and measures related to municipal sewage treatment plant**

| Type of Sewage Treatment Plant | : Not relevant / not applicable |

### 2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

**Product characteristics**

| Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics | 12/68 |
Concentration of the Substance in Mixture/Article Physical Form (at time of use)

Covers the percentage of the substance in the product up to 100 % (unless stated differently). liquid

Frequency and duration of use/exposure Remarks

Not relevant / not applicable

Other operational conditions affecting workers exposure

End Use

Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment

Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

### All PROCs Qualitative assessment
Not relevant / not applicable

<table>
<thead>
<tr>
<th>Chronic inhalation local exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Health
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
ES 5
1. Short title of Exposure Scenario:
Manufacture

Main User Groups: SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites

Process categories:
PROC1: Use in closed process, no likelihood of exposure
PROC2: Use in closed, continuous process with occasional controlled exposure
PROC3: Use in closed batch process (synthesis or formulation)
PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at non-dedicated facilities
PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at dedicated facilities
PROC15: Use as laboratory reagent

Environmental Release Categories:
ERC1: Manufacture of substances
ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

Remarks: In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (EnvironmentalHazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s):
Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics:
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used:
Daily amount per site: Not relevant / not applicable
Remarks:
Annual amount per site: Not relevant / not applicable
Remarks:
Fraction of EU tonnage used in region: Not relevant / not applicable
Remarks:

Other given operational conditions affecting environmental exposure:
Number of emission days per year: Not relevant / not applicable
Remarks:

Conditions and measures related to municipal sewage treatment plant
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid

Frequency and duration of use/exposure
Remarks : Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use : Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice : Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

| Environment | | | | | |
|---|---|---|---|---|
| Contributing Scenario | Exposure Assessment Method | Specific conditions | Compartments | Level of Exposure |
| All ERCs | Qualitative assessment | Not relevant / not applicable | Fresh water | The risk is adequately controlled. |
| All ERCs | Qualitative assessment | Not relevant / not applicable | Fresh water sediment | The risk is adequately controlled. |
| All ERCs | Qualitative assessment | Not relevant / not applicable | Marine water | The risk is adequately controlled. |
| All ERCs | Qualitative assessment | Not relevant / not applicable | Marine sediment | The risk is adequately controlled. |

<p>| Health | | | | | |
|---|---|---|---|---|
| Contributing Scenario | Exposure Assessment Method | Specific conditions | Value type | Level of Exposure |
| All PROCs | Qualitative assessment | Not relevant / not applicable | Acute dermal local exposure | The risk is adequately controlled. |
| All PROCs | Qualitative assessment | Not relevant / not applicable | Acute inhalation local exposure | The risk is adequately controlled. |
| All PROCs | Qualitative assessment | Not relevant / not applicable | Acute dermal systemic exposure | The risk is adequately controlled. |
| All PROCs | Qualitative assessment | Not relevant / not applicable | Acute inhalation systemic exposure | The risk is adequately controlled. |</p>
<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Not relevant / not applicable</th>
<th>Chronic inhalation systemic exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
1. Short title of Exposure Scenario:

Distribution of substance

Main User Groups
- SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites

Process categories
- PROC1: Use in closed process, no likelihood of exposure
- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at dedicated facilities
- PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
- PROC15: Use as laboratory reagent

Environmental Release Categories
- ERC1: Manufacture of substances
- ERC2: Formulation of preparations
- ERC3: Formulation in materials
- ERC4: Industrial use of processing aids in processes and products, not becoming part of articles
- ERC5: Industrial use resulting in inclusion into or onto a matrix
- ERC6a: Industrial use resulting in manufacture of another substance (use of intermediates)
- ERC6b: Industrial use of reactive processing aids
- ERC6c: Industrial use of monomers for manufacture of thermoplastics
- ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
- ERC7: Industrial use of substances in closed systems

Remarks
- In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
- For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
- Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics
- Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used
- Daily amount per site
- Annual amount per site
- Remarks: Not relevant / not applicable
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

Remarks
Fraction of EU tonnage used in region
Remarks

Other given operational conditions affecting environmental exposure
Number of emission days per year
Remarks

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use): liquid

Frequency and duration of use/exposure
Remarks

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice

3. Exposure estimation and reference to its source

<table>
<thead>
<tr>
<th>Environment</th>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health</th>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
<td>-------</td>
<td>-----------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Health
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
1. Short title of Exposure Scenario:

Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)

Main User Groups : SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites

Process categories:
- PROC1: Use in closed process, no likelihood of exposure
- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
- PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
- PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelleting
- PROC15: Use as laboratory reagent

Environmental Release Categories : ERC2: Formulation of preparations

Remarks:
In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics:
- Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used:
- Daily amount per site
  - Remarks: Not relevant / not applicable
- Annual amount per site
  - Remarks: Not relevant / not applicable
- Fraction of EU tonnage used in region
  - Remarks: Not relevant / not applicable

Other given operational conditions affecting environmental exposure:
- Number of emission days per year
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

Remarks : Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid

Frequency and duration of use/exposure
Remarks : Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use : Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice : Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs. High standards of skin care and personal hygiene should be exercised at all times. Aspiration hazard if swallowed - can enter lungs and cause damage. If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>
### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
1. Short title of Exposure Scenario:

Metal working fluids

Main User Groups:
- SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites

Process categories:
- PROC1: Use in closed process, no likelihood of exposure
- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
- PROC7: Industrial spraying
- PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
- PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
- PROC10: Roller application or brushing
- PROC13: Treatment of articles by dipping and pouring
- PROC17: Lubrication at high energy conditions and in partly open process

Environmental Release Categories:
- ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

Remarks:
In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics:
- Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used:
- Daily amount per site: Not relevant / not applicable
- Annual amount per site: Not relevant / not applicable
- Fraction of EU tonnage used in region: Not relevant / not applicable
- Remarks: Not relevant / not applicable
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00 Revision Date 28.09.2015

Other given operational conditions affecting environmental exposure
Number of emission days per year
Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant
Remarks: Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article
Physical Form (at time of use)
Remarks: Not relevant / not applicable

Frequency and duration of use/exposure
Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs. High standards of skin care and personal hygiene should be exercised at all times. Aspiration hazard if swallowed - can enter lungs and cause damage. If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

<table>
<thead>
<tr>
<th>Environment</th>
<th>Contribution Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health</th>
<th>Contribution Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
**EC-SAFETY DATA SHEET**

**HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS**

Version: 1.00  Revision Date 28.09.2015

---

### ES 9

1. Short title of Exposure Scenario:

**Use in coatings**

| Main User Groups | SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen) |
| Process categories | PROC1: Use in closed process, no likelihood of exposure |
| | PROC2: Use in closed, continuous process with occasional controlled exposure |
| | PROC3: Use in batch process (synthesis or formulation) |
| | PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises |
| | PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) |
| | PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities |
| | PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities |
| | PROC9: Roller application or brushing |
| | PROC10: Non industrial spraying |
| | PROC11: Treatment of articles by dipping and pouring |
| | PROC15: Use as laboratory reagent |
| | PROC19: Hand-mixing with intimate contact and only PPE available |

| Environmental Release Categories | ERC8a: Wide dispersive indoor use of processing aids in open systems |
| Remarks | ERC8d: Wide dispersive outdoor use of processing aids in open systems |

In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary.

Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant/not applicable. Qualitative approach used to conclude safe use.

### 2.1 Contributing scenario controlling environmental exposure for:

- All ERCs listed in chapter 1

| Product characteristics | Concentration of the Substance in Mixture/Article | Covers the percentage of the substance in the product up to 100 % (unless stated differently). |
| Amount used | Daily amount per site | Not relevant/not applicable |
| Remarks | | |
| Annual amount per site | Not relevant/not applicable |
| Remarks | | |
| Fraction of EU tonnage used in region | Not relevant/not applicable |
| Remarks | | |

Other given operational conditions affecting environmental exposure

Print Date 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 27/68
Number of emission days per year: 
Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100% (unless stated differently).
Physical Form (at time of use): liquid

Frequency and duration of use/exposure
Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
## 1. Short title of Exposure Scenario:

**Use in lubricants**

### Main User Groups

- **SU 22**: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

### Process categories

- **PROC1**: Use in closed process, no likelihood of exposure
- **PROC2**: Use in closed, continuous process with occasional controlled exposure
- **PROC3**: Use in closed batch process (synthesis or formulation)
- **PROC4**: Use in batch and other process (synthesis) where opportunity for exposure arises
- **PROC8a**: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
- **PROC8b**: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
- **PROC9**: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
- **PROC10**: Roller application or brushing
- **PROC11**: Non industrial spraying
- **PROC13**: Treatment of articles by dipping and pouring
- **PROC17**: Lubrication at high energy conditions and in partly open process
- **PROC18**: Greasing at high energy conditions
- **PROC20**: Heat and pressure transfer fluids in dispersive, professional use but closed systems

### Environmental Release Categories

- **ERC8a**: Wide dispersive indoor use of processing aids in open systems
- **ERC8d**: Wide dispersive outdoor use of processing aids in open systems
- **ERC9a**: Wide dispersive indoor use of substances in closed systems
- **ERC9b**: Wide dispersive outdoor use of substances in closed systems

### Remarks

In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

**Risk of serious damage to the lungs (by aspiration).** Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

## 2.1 Contributing scenario controlling environmental exposure for: All ERCs listed in chapter 1

### Product characteristics

**Concentration of the Substance in Mixture/Article**

Covers the percentage of the substance in the product up to 100 % (unless stated differently).

### Amount used

- **Daily amount per site**
- **Remarks**

- **Annual amount per site**
- **Remarks**

- **Fraction of EU tonnage used in region**
- **Remarks**

Print Date 28.09.2015

Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 30/68
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

Other given operational conditions affecting environmental exposure
Number of emission days per year:  
Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use): liquid

Frequency and duration of use/exposure
Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
### EC-SAFETY DATA SHEET

**HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS**

**Version:** 1.00  
**Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Not relevant / not applicable</th>
<th>Acute inhalation local exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
1. Short title of Exposure Scenario:

Binding agents

Main User Groups: SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories:
- PROC1: Use in closed process, no likelihood of exposure
- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC6: Calendering operations
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/large containers at dedicated facilities
- PROC10: Roller application or brushing
- PROC11: Non industrial spraying
- PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation

Environmental Release Categories:
- ERC8a: Wide dispersive indoor use of processing aids in open systems
- ERC8d: Wide dispersive outdoor use of processing aids in open systems

Remarks: In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics:
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used:
- Daily amount per site: Not relevant / not applicable
- Annual amount per site: Not relevant / not applicable
- Fraction of EU tonnage used in region: Not relevant / not applicable

Remarks:
- Number of emission days per year: Not relevant / not applicable
- Remarks: Not relevant / not applicable
Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid

Frequency and duration of use/exposure
Remarks : Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use : Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice : Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

<table>
<thead>
<tr>
<th>Environment</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Scenario</td>
<td>Exposure Assessment Method</td>
<td>Specific conditions</td>
<td>Compartment</td>
<td>Level of Exposure</td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing Scenario</td>
<td>Exposure Assessment Method</td>
<td>Specific conditions</td>
<td>Value type</td>
<td>Level of Exposure</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>
**HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS**

**Version:** 1.00  **Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Not relevant / not applicable</th>
<th>Acute inhalation systemic exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

4. **Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Environment**
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
ES 12
1. Short title of Exposure Scenario:
Polymer processing

Main User Groups : SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories :
PROC1: Use in closed process, no likelihood of exposure
PROC2: Use in closed, continuous process with occasional controlled exposure
PROC6: Calendering operations
PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at non-dedicated facilities
PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at dedicated facilities
PROC14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation
PROC21: Low energy manipulation of substances bound in materials and/or articles

Environmental Release Categories :
ERC8a: Wide dispersive indoor use of processing aids in open systems
ERC8d: Wide dispersive outdoor use of processing aids in open systems

Remarks :
In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
:- All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article :
Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used
Daily amount per site :
Remarks :
Not relevant / not applicable
Annual amount per site :
Remarks :
Not relevant / not applicable
Fraction of EU tonnage used in region :
Remarks :
Not relevant / not applicable

Other given operational conditions affecting environmental exposure
Number of emission days per year :
Remarks :
Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
**HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS**

**Version:** 1.00  
**Revision Date:** 28.09.2015

---

**Type of Sewage Treatment Plant:** Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

**Product characteristics**
- Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
- Physical Form (at time of use): liquid

**Frequency and duration of use/exposure**
- Remarks: Not relevant / not applicable

**Other operational conditions affecting workers exposure**
- End Use: Not relevant / not applicable

**Additional good practice advice beyond the REACH Chemical Safety Assessment**
- Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

---

**3. Exposure estimation and reference to its source**

### Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

### Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Health
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

ES 13
1. Short title of Exposure Scenario:
   Fuels

Main User Groups: SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories:
   PROC1: Use in closed process, no likelihood of exposure
   PROC2: Use in closed, continuous process with occasional controlled exposure
   PROC3: Use in closed batch process (synthesis or formulation)
   PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at non-dedicated facilities
   PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at dedicated facilities
   PROC16: Using material as fuel sources, limited exposure to unburned product to be expected

Environmental Release Categories:
   ERC9a: Wide dispersive indoor use of substances in closed systems
   ERC9b: Wide dispersive outdoor use of substances in closed systems

Remarks:
   In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

   For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

   Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s):
   Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
   All ERCs listed in chapter 1

Product characteristics:
   Concentration of the Substance in Mixture/Article:
   Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used:
   Daily amount per site:
   Remarks: Not relevant / not applicable
   Annual amount per site:
   Remarks: Not relevant / not applicable
   Fraction of EU tonnage used in region:
   Remarks: Not relevant / not applicable

Other given operational conditions affecting environmental exposure:
   Number of emission days per year:
   Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant:
   Type of Sewage Treatment Plant:
   Not relevant / not applicable
2.2 Contributing scenario controlling worker exposure for:
:: All PROCs listed in chapter 1

Product characteristics
- Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
- Physical Form (at time of use): liquid

Frequency and duration of use/exposure
- Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure
- End Use: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
- Additional good practice advice: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

### Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compart ment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

### Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>
### HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

**Version:** 1.00  
**Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Systemic exposure</th>
<th>Adequately controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Local exposure</th>
<th>Adequately controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Local exposure</th>
<th>Adequately controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
ES 14

1. Short title of Exposure Scenario:
Use as laboratory reagent

Main User Groups : SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Process categories : PROC10: Roller application or brushing
                   : PROC15: Use as laboratory reagent
Environmental Release Categories : ERC8a: Wide dispersive indoor use of processing aids in open systems
Remarks : In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used
Daily amount per site : Not relevant / not applicable
Remarks : Not relevant / not applicable
Annual amount per site : Not relevant / not applicable
Remarks : Not relevant / not applicable
Fraction of EU tonnage used in region : Not relevant / not applicable
Remarks : Not relevant / not applicable

Other given operational conditions affecting environmental exposure
Number of emission days per year : Not relevant / not applicable
Remarks : Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in : Covers the percentage of the substance in the product up to 100 % (unless
### Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

### Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>

Additional good practice advice beyond the REACH Chemical Safety Assessment:
Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.
Hydrocarbons, C10-C14, N-Alkanes, Isoalkanes, <2% Aromatics

Version: 1.00  Revision Date: 28.09.2015

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Chronic dermal local exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Health
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
1. Short title of Exposure Scenario:
Propellant

Main User Groups : SU 22: Professional uses: Public domain (administration, education, 
entertainment, services, craftsmen)

Process categories : PROC11: Non industrial spraying

Environmental Release Categories : ERC8a: Wide dispersive indoor use of processing aids in open systems
ERC8d: Wide dispersive outdoor use of processing aids in open systems

Remarks : In the chemical safety assessment performed according to Article 14(3) in 
connection with Annex I section 3 (Environmental Hazard Assessment) and 
section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore 
according to REACH Annex I (5.0) an exposure estimation is not necessary. 
Consequently all identified uses of the substance are considered as safe for 
the environment.

For this substance no systemic human health hazard was identified. The local 
risks are sufficiently controlled by the risk management measures and 
operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): 
Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for: 
- : All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless 
stated differently).

Amount used
Daily amount per site : 
Remarks : Not relevant / not applicable

Annual amount per site : 
Remarks : Not relevant / not applicable

Fraction of EU tonnage used in region : 
Remarks : Not relevant / not applicable

Other given operational conditions affecting environmental exposure
Number of emission days per year : 
Remarks : Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling worker exposure for: 
- : All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in : Covers the percentage of the substance in the product up to 100 % (unless
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

Mixture/Article stated differently). Physical Form (at time of use) : liquid

Frequency and duration of use/exposure
Remarks : Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use : Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice : Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs., High standards of skin care and personal hygiene should be exercised at all times., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>

Print Date 28.09.2015

Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00        Revision Date: 28.09.2015

<table>
<thead>
<tr>
<th></th>
<th>assessment</th>
<th>local exposure</th>
<th>adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Health
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
ES 16

1. Short title of Exposure Scenario:
   Metal working fluids

   Main User Groups : SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
   Process categories :
      PROC1: Use in closed process, no likelihood of exposure
      PROC2: Use in closed, continuous process with occasional controlled exposure
      PROC3: Use in closed batch process (synthesis or formulation)
      PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
      PROC6a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
      PROC6b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
      PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
      PROC10: Roller application or brushing
      PROC11: Non industrial spraying
      PROC13: Treatment of articles by dipping and pouring
      PROC17: Lubrication at high energy conditions and in partly open process
   Environmental Release Categories : ERC8a: Wide dispersive indoor use of processing aids in open systems
                                      ERC8d: Wide dispersive outdoor use of processing aids in open systems
   Remarks : In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
   For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
   Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s):
   Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
   All ERCs listed in chapter 1

   Product characteristics
      Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
   Amount used
      Daily amount per site :
      Remarks :
      Annual amount per site :
      Remarks :
      Fraction of EU tonnage used in region :
      Remarks :

   Other given operational conditions affecting environmental exposure
      Number of emission days per year :

Print Date 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics  48/68
### 2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

#### Product characteristics
- **Concentration of the Substance in Mixture/Article**: Covers the percentage of the substance in the product up to 100% (unless stated differently).
- **Physical Form (at time of use)**: liquid

#### Frequency and duration of use/exposure
- **Remarks**: Not relevant / not applicable

#### Other operational conditions affecting workers exposure
- **End Use**: Not relevant / not applicable

#### Additional good practice advice beyond the REACH Chemical Safety Assessment
- **Additional good practice advice**: Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs. High standards of skin care and personal hygiene should be exercised at all times. Aspiration hazard if swallowed - can enter lungs and cause damage. If swallowed, do not induce vomiting - seek medical advice.

### 3. Exposure estimation and reference to its source

#### Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

#### Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>
## HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

**Version:** 1.00  
**Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th></th>
<th>assessment</th>
<th>systemic exposure</th>
<th>adequately controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>systemic exposure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The risk is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>systemic exposure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The risk is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>systemic exposure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The risk is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>local exposure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The risk is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adequately controlled.</td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>local exposure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The risk is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adequately controlled.</td>
</tr>
</tbody>
</table>

---

### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.
ES 17

1. Short title of Exposure Scenario:

Use in roads and construction

Main User Groups

SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories

PROC8a: Transfer of substance or preparation (charging/ discharging) from/to vessels/large containers at non-dedicated facilities
PROC8b: Transfer of substance or preparation (charging/ discharging) from/to vessels/large containers at dedicated facilities
PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC10: Roller application or brushing
PROC11: Non industrial spraying
PROC13: Treatment of articles by dipping and pouring

Environmental Release Categories

ERC8d: Wide dispersive outdoor use of processing aids in open systems
ERC8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix

Remarks

In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s):
Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:

- All ERCs listed in chapter 1

Product characteristics

Concentration of the Substance in Mixture/Article

Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used

Daily amount per site

Not relevant / not applicable

Remarks

Annual amount per site

Not relevant / not applicable

Remarks

Fraction of EU tonnage used in region

Not relevant / not applicable

Remarks

Other given operational conditions affecting environmental exposure

Number of emission days per year

Not relevant / not applicable

Remarks

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant

Not relevant / not applicable

Print Date 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 51/68
2.2 Contributing scenario controlling worker exposure for:
- All PROCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article:
Physical Form (at time of use): liquid

Frequency and duration of use/exposure Remarks:
Remarks: Not relevant / not applicable

Other operational conditions affecting workers exposure
End Use:
Remarks: Not relevant / not applicable

Additional good practice advice beyond the REACH Chemical Safety Assessment
Additional good practice advice:
Follow good work practice and refer to chapter 8 of the SDS for resulting RMMs. High standards of skin care and personal hygiene should be exercised at all times. Aspiration hazard if swallowed - can enter lungs and cause damage. If swallowed, do not induce vomiting - seek medical advice.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PROCs</td>
<td>Qualitative</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Print Date 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 52/68
### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Health**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>systemic exposure</th>
<th>adequately controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Chronic inhalation local exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not relevant / not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All PROCs</th>
<th>Qualitative assessment</th>
<th>Chronic dermal local exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
</table>
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

ES 18
1. Short title of Exposure Scenario:
Use in coatings

| Main User Groups | : SU 21: Consumer uses: Private households (= general public = consumers) |
| Chemical product category | : PC1: Adhesives, sealants, PC4: Anti-Freeze and de-icing products, PC8: Biocidal products (e.g. Disinfectants, pest control) - Carrier, PC9a: Coatings and paints, thinners, paint removers, PC9b: Fillers, putties, plasters, modelling clay, PC9c: Finger paints, PC15: Non-metal-surface treatment products, PC18: Ink and toners, PC23: Leather tanning, dye, finishing, impregnation and care products, PC24: Lubricants, greases, release products, PC31: Polishes and wax blends, PC34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids |

Environmental Release Categories : ERC8a: Wide dispersive indoor use of processing aids in open systems, ERC8d: Wide dispersive outdoor use of processing aids in open systems

Remarks : In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT / vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment. For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS. Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

| Product characteristics | : Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently). |
| Amount used | Daily amount per site : Not relevant / not applicable, Annual amount per site : Not relevant / not applicable, Remarks : Not relevant / not applicable |
| Other given operational conditions affecting environmental exposure | Number of emission days per year : Not relevant / not applicable, Remarks : Not relevant / not applicable |
| Conditions and measures related to municipal sewage treatment plant | Type of Sewage Treatment Plant : Not relevant / not applicable |

Print Date 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 54/68
2.2 Contributing scenario controlling consumer exposure for:
- All PCs listed in chapter 1

**Product characteristics**
- Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
- Physical Form (at time of use): liquid

**Amount used**
- Remarks: Not relevant / not applicable

**Frequency and duration of use/exposure**
- Remarks: Not relevant / not applicable

**Human factors not influenced by risk management**
- Exposed skin area: Not relevant / not applicable
- Dermal absorption: Not relevant / not applicable

**Other given operational conditions affecting consumers exposure**
- Remarks: Covers the usage with typical household aeration

**Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)**
- Remarks: Keep locked up and out of the reach of children., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice., High standards of skin care and personal hygiene should be exercised at all times.

3. Exposure estimation and reference to its source

### Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartments</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

### Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local</td>
<td>The risk is</td>
<td></td>
</tr>
</tbody>
</table>
### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Exposure</th>
<th>Adequately controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Acute inhalation local exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Acute dermal systemic exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Acute inhalation systemic exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic inhalation systemic exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic dermal systemic exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic inhalation local exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic dermal local exposure</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>long term, oral, systemic</td>
</tr>
</tbody>
</table>

**Environment**
- Not applicable

**Health**
- Not applicable
ES 19

1. Short title of Exposure Scenario:

Use in lubricants

Main User Groups
Chemical product category

Environmental Release Categories
Remarks

In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.

For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:

- All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article
Amount used
Daily amount per site
Annual amount per site
Fraction of EU tonnage used in region
Remarks

Other given operational conditions affecting environmental exposure
Number of emission days per year
Remarks

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant
Remarks

2.2 Contributing scenario controlling consumer exposure for:

- All PCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article
Amount used
Daily amount per site
Annual amount per site
Fraction of EU tonnage used in region
Remarks

Other given operational conditions affecting environmental exposure
Number of emission days per year
Remarks

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant
Remarks
Hydrocarbons, C10-C14, N-alkanes, isoalkanes, <2% aromatics

Version: 1.00
Revision Date: 28.09.2015

Mixture/Article stated differently.
Physical Form (at time of use): liquid

Amount used
Remarks: Not relevant / not applicable

Frequency and duration of use/exposure
Remarks: Not relevant / not applicable

Human factors not influenced by risk management
Exposed skin area
Remarks: Not relevant / not applicable

Dermal absorption
Remarks: Not relevant / not applicable

Other given operational conditions affecting consumers exposure
Remarks: Covers the usage with typical household aeration

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)
Remarks: Keep locked up and out of the reach of children. Aspiration hazard if swallowed - can enter lungs and cause damage. If swallowed, do not induce vomiting - seek medical advice. High standards of skin care and personal hygiene should be exercised at all times.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
### EC-SAFETY DATA SHEET

**HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS**

**Version:** 1.00 **Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th>All PCs</th>
<th>Qualitative assessment</th>
<th>Not relevant / not applicable</th>
<th>Acute inhalation systemic exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>long term, oral, systemic</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

4. **Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Environment**
- Not applicable

**Health**
- Not applicable
ES 20

1. Short title of Exposure Scenario:

Propellant

Main User Groups : SU 21: Consumer uses: Private households (= general public = consumers)
Chemical product category : PC1: Adhesives, sealants
                             PC3: Air care products
                             PC4: Anti-Freeze and de-icing products
                             PC9a: Coatings and paints, thinners, paint removers
                             PC24: Lubricants, greases, release products
                             PC31: Polishes and wax blends
                             PC35: Washing and cleaning products (including solvent based products)
                             PC0: Artists Supply and Hobby mixes - Building and construction mixes not covered elsewhere

Environmental Release Categories : ERC8a: Wide dispersive indoor use of processing aids in open systems
                                  ERC8d: Wide dispersive outdoor use of processing aids in open systems

Remarks : In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT / vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.

Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used
Daily amount per site :
Remarks : Not relevant / not applicable
Annual amount per site :
Remarks : Not relevant / not applicable
Fraction of EU tonnage used in region :
Remarks : Not relevant / not applicable

Other given operational conditions affecting environmental exposure
Number of emission days per year :
Remarks : Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

2.2 Contributing scenario controlling consumer exposure for:
- All PCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article
Physical Form (at time of use)

Amount used
Remarks

Frequency and duration of use/exposure
Remarks

Human factors not influenced by risk management
Exposed skin area
Remarks
Dermal absorption
Remarks

Other given operational conditions affecting consumers exposure
Remarks

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)
Remarks

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>
### HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

**Version:** 1.00  
**Revision Date:** 28.09.2015

<table>
<thead>
<tr>
<th>All PCs</th>
<th>Qualitative assessment</th>
<th>Acute inhalation local exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>long term, oral, systemic</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

#### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

**Environment**  
Not applicable

**Health**  
Not applicable
1. Short title of Exposure Scenario:
Use as fuel

Main User Groups: SU 21: Consumer uses: Private households (= general public = consumers)
Chemical product category: PC13: Fuels
Environmental Release Categories: ERC9b: Wide dispersive outdoor use of substances in closed systems
ERC9a: Wide dispersive indoor use of substances in closed systems
Remarks: In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/ vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
-: All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used
Daily amount per site: Not relevant / not applicable
Remarks: Not relevant / not applicable
Annual amount per site: Not relevant / not applicable
Remarks: Not relevant / not applicable
Fraction of EU tonnage used in region: Not relevant / not applicable
Remarks: Not relevant / not applicable

Other given operational conditions affecting environmental exposure
Number of emission days per year: Not relevant / not applicable
Remarks: Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Not relevant / not applicable

2.2 Contributing scenario controlling consumer exposure for:
-: All PCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use): liquid
HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date: 28.09.2015

Amount used
Remarks: Not relevant / not applicable

Frequency and duration of use/exposure
Remarks: Not relevant / not applicable

Human factors not influenced by risk management
Exposed skin area
Remarks: Not relevant / not applicable
Dermal absorption
Remarks: Not relevant / not applicable

Other given operational conditions affecting consumers exposure
Remarks: Covers the usage with typical household aeration

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)
Remarks: Keep locked up and out of the reach of children. Aspiration hazard if swallowed - can enter lungs and cause damage. If swallowed, do not induce vomiting - seek medical advice. High standards of skin care and personal hygiene should be exercised at all times.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Print Date: 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 64/68
4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Not applicable

Health
Not applicable
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00               Revision Date 28.09.2015

ES 22

1. Short title of Exposure Scenario:
Consumer uses, Other

Main User Groups : SU 21: Consumer uses: Private households (= general public = consumers)
Chemical product category : PC28: Perfumes, fragrances
                           : PC39: Cosmetics, personal care products
Environmental Release Categories : ERC8a: Wide dispersive indoor use of processing aids in open systems
                                  : ERC8d: Wide dispersive outdoor use of processing aids in open systems
Remarks : In the chemical safety assessment performed according to Article 14(3) in connection with Annex I section 3 (Environmental Hazard Assessment) and section 4 (PBT/vPvB Assessment) no hazard was identified. Therefore according to REACH Annex I (5.0) an exposure estimation is not necessary. Consequently all identified uses of the substance are considered as safe for the environment.
For this substance no systemic human health hazard was identified. The local risks are sufficiently controlled by the risk management measures and operational conditions described in chapter 7 and 8 of the SDS.
Risk of serious damage to the lungs (by aspiration). Derivation of DNEL(s): Not relevant / not applicable. Qualitative approach used to conclude safe use.

2.1 Contributing scenario controlling environmental exposure for:
- All ERCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount used
Daily amount per site : Not relevant / not applicable
Remarks : Not relevant / not applicable
Annual amount per site : Not relevant / not applicable
Remarks : Not relevant / not applicable
Fraction of EU tonnage used in region : Not relevant / not applicable
Remarks : Not relevant / not applicable

Other given operational conditions affecting environmental exposure
Number of emission days per year : Not relevant / not applicable
Remarks : Not relevant / not applicable

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Not relevant / not applicable

2.2 Contributing scenario controlling consumer exposure for:
- All PCs listed in chapter 1

Product characteristics
Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
EC-SAFETY DATA SHEET

HYDROCARBONS, C10-C14, N-ALKANES, ISOALKANES, <2% AROMATICS

Version: 1.00  Revision Date 28.09.2015

Physical Form (at time of use) : liquid

Amount used
Remarks : Not relevant / not applicable

Frequency and duration of use/exposure
Remarks : Not relevant / not applicable

Human factors not influenced by risk management
Exposed skin area
Remarks : Not relevant / not applicable
Dermal absorption
Remarks : Not relevant / not applicable

Other given operational conditions affecting consumers exposure
Remarks : Covers the usage with typical household aeration

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)
Remarks : Keep locked up and out of the reach of children., Aspiration hazard if swallowed - can enter lungs and cause damage., If swallowed, do not induce vomiting - seek medical advice., High standards of skin care and personal hygiene should be exercised at all times.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Fresh water sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine water</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All ERCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Marine sediment</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Health

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>RCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Acute dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
<td></td>
</tr>
</tbody>
</table>

Print Date 28.09.2015  Annex Hydrocarbons, C10-C14, n-alkanes, isoalkanes, <2% aromatics 67/68
<table>
<thead>
<tr>
<th>All PCs</th>
<th>Qualitative assessment</th>
<th>Not relevant / not applicable</th>
<th>Chronic inhalation systemic exposure</th>
<th>The risk is adequately controlled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal systemic exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic inhalation local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>Chronic dermal local exposure</td>
<td>The risk is adequately controlled.</td>
</tr>
<tr>
<td>All PCs</td>
<td>Qualitative assessment</td>
<td>Not relevant / not applicable</td>
<td>long term, oral, systemic</td>
<td>The risk is adequately controlled.</td>
</tr>
</tbody>
</table>

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Environment
Not applicable

Health
Not applicable