



SAFETY DATA SHEET NESSOL D40

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

1.1. Product identifier

| | |
|---------------------------|--|
| Product name | NESSOL D40 |
| Chemical name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics |
| Product number | ID 10525 |
| Internal identification | 135157, 137311. |
| Synonyms; trade names | Previous product name: NESSOL LIAV 200. Previous product number: 752011. |
| REACH registration number | 01-2119463258-33-0003 |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|-----------------|--|
| Identified uses | Manufacture of substance, (ES01) Distribution of substance, (ES01a) Formulation & (re)packing of substances and mixtures, (ES02) Uses in coatings (ES03a) (ES03b) (ES03c) Use in cleaning agents (ES04a) (ES04b) (ES04c) Lubricants (ES06a) (ES06b) (ES06c) Use as binders and release agents (ES10a) (ES10b) Metal working fluids/rolling oils (ES07a) (ES07b) Use as a fuel, (ES12a) (ES12b) (ES12c) Functional fluids (ES13a) (ES13b) (ES13c) Road and construction applications (ES15b) Other Consumer Uses Not applicable. Use in laboratories (ES17a) (ES17b) Polymer processing (ES23a) (ES23b) Water treatment chemicals (ES21a) (ES21b) (ES21c) |
|-----------------|--|

1.3. Details of the supplier of the safety data sheet

| | |
|----------|---|
| Supplier | Neste Oyj Keilaranta 21, Espoo, P.O.B. 95, FIN-00095 NESTE, FINLAND Tel. +358 10 45811 SDS@neste.com (chemical safety) |
|----------|---|

1.4. Emergency telephone number

National emergency telephone +358-9-471 977, +358-9-4711, Poison Information Centre number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

| | |
|-----------------------|-------------------------------------|
| Physical hazards | Flam. Liq. 3 - H226 |
| Health hazards | STOT SE 3 - H336 Asp. Tox. 1 - H304 |
| Environmental hazards | Not Classified |

2.2. Label elements

Pictogram



NESSOL D40

| | |
|---------------------------------------|---|
| Signal word | Danger |
| Hazard statements | H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. |
| Precautionary statements | P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. P501 Dispose of contents/ container in accordance with national regulations. P102 Keep out of reach of children. |
| Supplemental label information | EUH066 Repeated exposure may cause skin dryness or cracking. |
| Contains | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics |
| 2.3. Other hazards | |
| Other hazards | Vapours may accumulate on the floor and in low-lying areas. Vapours may form explosive mixtures with air. Evaporates slowly. Vapours may irritate throat/respiratory system. Risk of soil and ground water contamination. |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
|---|--|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics | 100% |
| CAS number: — | REACH registration number: 01-2119463258-33-XXXX |
| Classification | |
| Flam. Liq. 3 - H226 | |
| STOT SE 3 - H336 | |
| Asp. Tox. 1 - H304 | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Other information Identity outside the EU (CAS number and name of the substance):, 64742-48-9, Naphtha (petroleum), hydrotreated heavy., Previous EC number:., 265-150-3.

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------|--|
| Inhalation | Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist. |
| Ingestion | Do not induce vomiting. Get medical attention immediately. |
| Skin contact | Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. |
| Eye contact | Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing. |

4.2. Most important symptoms and effects, both acute and delayed

NESSOL D40

General information Vapours in high concentrations are narcotic. May cause nausea, headache, dizziness and intoxication. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Repeated exposure may cause skin dryness or cracking.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Flammable liquid and vapour. Containers can burst violently or explode when heated, due to excessive pressure build-up. Severe explosion hazard when vapours are exposed to flames.

Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours and contact with skin and eyes. Wear adequate protective equipment at all operations.

For non-emergency personnel Keep upwind to avoid inhalation of gases, vapours, fumes and smoke.

For emergency responders Prevent unauthorized access. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Use only in well-ventilated areas. Eliminate all ignition sources if safe to do so.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Risk of soil and ground water contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Immediately start clean-up of the liquid and contaminated soil. Large spills should be collected mechanically (remove by pumping) for disposal. Small Spillages: Absorb spillage with sand or other inert absorbent. Pay attention to the fire and health hazards caused by the product.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

NESSOL D40

Usage precautions This material is a static accumulator. Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges. All handling should only take place in well-ventilated areas. Try to avoid product volatilization during handling and transferring. Avoid inhalation of vapours and contact with skin and eyes. Use personal protective equipment and/or local ventilation when needed. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Flammable liquid storage. Store in accordance with local regulations. Keep container tightly closed, in a cool, well ventilated place. Keep away from food, drink and animal feeding stuffs. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations. Suitable container materials: Stainless steel. Carbon steel. Polytetrafluoroethylene (PTFE, Teflon). Polypropene Polyethylene. Unsuitable container materials: Butyl rubber. Rubber (natural, latex). EPDM (ethylene-propylene-diene monomer). Polystyrene

7.3. Specific end use(s)

Specific end use(s) Not known.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments Solvent naphtha, group 1: 500 mg/m³ (8h), HTP 2018/FIN. The individual limit values can be applied for the hydrocarbons.

PNEC Not available.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

DNEL

- Workers - Inhalation; Long term systemic effects: 871 mg/m³
- Workers - Dermal; Long term systemic effects: 208 mg/kg/day
- Consumer - Inhalation; Long term systemic effects: 185 mg/m³
- Consumer - Dermal; Long term systemic effects: 125 mg/kg/day
- Consumer - Oral; Long term systemic effects: 125 mg/kg/day

8.2. Exposure controls

Appropriate engineering controls All handling should only take place in well-ventilated areas. Use personal protective equipment and/or local ventilation when needed. Handle in accordance with good industrial hygiene and safety practice.

Eye/face protection Tight-fitting safety glasses.

Hand protection Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. The selected gloves should have a breakthrough time of at least 4 hours. Protection class 5. Protective gloves according to standards EN 420 and EN 374. Change protective gloves regularly.

Other skin and body protection Protective clothing when needed. Wear anti-static protective clothing if there is a risk of ignition from static electricity.

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| | |
|--|--|
| Respiratory protection | Filter device/half mask Gas filter, type A2. Filter device could be used maximum 2 hours at a time. Filter devices must not be used in conditions where the oxygen level is low (< 19 vol.-%). At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus). Filter must be changed often enough. Respirator according to standard EN 140. |
| Environmental exposure controls | Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Appearance | Mobile liquid. |
| Colour | Clear. |
| Odour | Hydrocarbons. Mild. |
| Odour threshold | - |
| pH | - |
| Melting point | (Melting/pour point) < -15°C |
| Initial boiling point and range | 150...200°C (EN ISO 3405) |
| Flash point | ≥ 38°C (DIN 51755) |
| Upper/lower flammability or explosive limits | Upper flammable/explosive limit: 0,6 % Estimated value. Lower flammable/explosive limit: 7 % Estimated value. |
| Vapour pressure | ~ 0,3 kPa @ 20°C ~ 2,5 kPa @ 50°C |
| Vapour density | > 3 (Air = 1.0) |
| Relative density | 0,74 - 0,85 @ 15°C |
| Solubility(ies) | The product has poor water-solubility. |
| Partition coefficient | log Kow: 2...7 |
| Auto-ignition temperature | ~ 250°C Estimated value. |
| Decomposition Temperature | - |
| Viscosity | Kinematic viscosity < 2 mm ² /s @ 40°C (EN ISO 3104) Dynamic viscosity < 50 mPa s @ 20°C |
| Explosive properties | Not considered to be explosive. |
| Oxidising properties | Does not meet the criteria for classification as oxidising. |

9.2. Other information

| | |
|--------------------------|------------------------------------|
| Other information | Surface tension 22-27 mN/m @ 25 °C |
|--------------------------|------------------------------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

| | |
|-------------------|---|
| Reactivity | There are no known reactivity hazards associated with this product. |
|-------------------|---|

10.2. Chemical stability

| | |
|------------------|---|
| Stability | Stable at normal ambient temperatures and when used as recommended. |
|------------------|---|

10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame. Take precautionary measures against static discharges.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met. (OECD 404, HRIPT = Human Repeated Insult Patch Test) Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met. (OECD 405).

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. (OECD 406, HRIPT).

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met. (OECD 471, 473, 476, 479).

Genotoxicity - in vivo Based on available data the classification criteria are not met. (OECD 474, 478)

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met. (OECD 453)

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. (OECD 421, 422)

Reproductive toxicity - development Based on available data the classification criteria are not met. (OECD 414)

Specific target organ toxicity - single exposure

STOT - single exposure May cause nausea, headache, dizziness and intoxication. Anaesthetic in high concentrations.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met. (OECD 408, 413, 422)

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Toxicological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Acute toxicity - oral

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| | |
|---|--|
| Notes (oral LD₅₀) | LD ₅₀ > 5000 mg/kg, Oral, Rat (OECD 401, 423) |
| <u>Acute toxicity - dermal</u> | |
| Notes (dermal LD₅₀) | LD ₅₀ > 2000 mg/kg, Dermal, Rabbit (OECD 402) |
| <u>Acute toxicity - inhalation</u> | |
| Notes (inhalation LC₅₀) | LC ₅₀ > 4,95 mg/l, Inhalation, Rat (4h) Air. (OECD 403) |

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Acute aquatic toxicity

| | |
|---|--|
| Acute toxicity - fish | LL ₅₀ , 96 hours: > 1000 mg/l, LL0, 96 hours: 100 mg/l, (OECD 203) |
| Acute toxicity - aquatic invertebrates | EL50, 48 hours: > 1000 mg/l, EL0, 48 hours: 1000 mg/l, (OECD 202) |
| Acute toxicity - aquatic plants | EL50, 72 hours: > 1000 mg/l, Algae NOELR, 72 hours: 3 - 100 mg/l, Algae (OECD 201) |

Chronic aquatic toxicity

| | |
|---|--------------------------------------|
| Chronic toxicity - fish early life stage | NOELR, 28 days: 0,13 mg/l, (QSAR) |
| Chronic toxicity - aquatic invertebrates | NOELR, 21 days: 0,23 mg/l, (QSAR) |

12.2. Persistence and degradability

| | |
|-------------------------------|---|
| Phototransformation | The product contains volatile substances which may spread in the atmosphere. Can be photodegraded in the atmosphere. |
| Stability (hydrolysis) | No significant reaction in water. |
| Biodegradation | Rapidly degradable (OECD 301F) |

Ecological information on ingredients.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

| | |
|-----------------------|-----------------------------------|
| Biodegradation | Rapidly degradable (OECD 301F) |
|-----------------------|-----------------------------------|

12.3. Bioaccumulative potential

| | |
|----------------------------------|--------------------|
| Bioaccumulative potential | No data available. |
| Partition coefficient | log Kow: 2...7 |

12.4. Mobility in soil

NESSOL D40

Mobility Volatile. Volatilization is the fastest and most dominant elimination process in surface water and soil. Product can penetrate soil until reaching the surface of ground water. The product contains substances which are bound to particulate matter and are retained in soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Waste packaging should be collected for reuse or recycling.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1268

14.2. UN proper shipping name

Proper shipping name (ADR/RID) UN 1268 PETROLEUM PRODUCTS, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class 3

14.4. Packing group

ADR/RID packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Hazard Identification Number (ADR/RID) 30

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Bulk (MARPOL 73/78, Annex II): Noxious liquid, F, (8) n.o.s. (NESSOL D40 contains Iso- and cyclo-alkanes (C10- C11)). Ship type: 3 Pollution category: Cat Y According to MARPOL: "Non-solidifying substance"

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

NESSOL D40

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Restrictions (Title VIII Regulation 1907/2006) Entry number: 3 (lamp oils and grill lighter fluids)

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

Canada - DSL/NDSL

Yes
DSL

US - TSCA

Yes

Australia - AICS

Yes

Korea - KECI

Yes

China - IECSC

Yes

Philippines – PICCS

Yes

New Zealand - NZIOC

Yes

Other Mexico - INSQ

SECTION 16: Other information

Key literature references and sources for data Regulations, databases, literature, own research. Chemical Safety Report Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics, 2012.

Revision comments Updated, sections: 15. Exposure scenarios

Revision date 03/09/2018

Supersedes date 21/11/2017

SDS number 5695

Hazard statements in full H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.

Exposure scenario

Distribution of Substance - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES01a |

1. Title of exposure scenario

| | |
|----------------------|--|
| Main title | Distribution of Substance - Industrial |
| Process scope | Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading distribution and associated laboratory activities. |
| Main sector | SU3 Industrial uses |
| Sector of use | SU8 Manufacture of bulk, large-scale chemicals (including petroleum products) SU9 Manufacture of fine chemicals |

Environment

| | |
|---------------------------------------|---|
| Environmental release category | ERC1 Manufacture of the substance ERC2 Formulation into mixture ERC3 Formulation into solid matrix ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) ERC5 Use at industrial site leading to inclusion into/onto article ERC6a Use of intermediate ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article) ERC6c Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article) ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article) ERC7 Use of functional fluid at industrial site |
|---------------------------------------|---|

| | |
|--------------|---------------------|
| SPERC | ESVOC SPERC 1.1b.v1 |
|--------------|---------------------|

Worker

| | |
|-------------------------|---|
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC15 Use as laboratory reagent. |
|-------------------------|---|

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

Distribution of Substance - Industrial

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Risk management measures

General exposures (closed systems)
Handle substance within a closed system.
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General exposures (open systems)
No other specific measures identified.
.
Process sampling
No other specific measures identified.
.
Laboratory activities
No other specific measures identified.
.
Bulk transfers
(closed systems)
No other specific measures identified.
.
Bulk transfers
(open systems)
No other specific measures identified.
.
Drum and small package filling
No other specific measures identified.
.
Equipment cleaning and maintenance
No other specific measures identified.
.
Storage
Store substance within a closed system.
Transfer via enclosed lines.

3. Exposure estimation (Health 1)

| | |
|--------------------------|--|
| Assessment method | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use. |
|--------------------------|--|

Distribution of Substance - Industrial

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Formulation & (Re)packing of Substances and Mixtures - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES02 |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Formulation & (Re)packing of Substances and Mixtures - Industrial |
| Process scope | Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities. |
| Main sector | SU3 Industrial uses |
| Sector of use | SU10 Formulation [mixing] of preparations and/or re-packaging |
| Environment | |
| Environmental release category | ERC2 Formulation into mixture |
| SPERC | ESVOC SPERC 2.2.v1 |
| Worker | |
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC5 Mixing or blending in batch processes</p> <p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p> <p>PROC14 Tableting, compression, extrusion, pelletisation, granulation</p> <p>PROC15 Use as laboratory reagent.</p> |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |

Formulation & (Re)packing of Substances and Mixtures - Industrial

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

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

General exposures (closed systems)

Handle substance within a closed system.

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General exposures (open systems)

No other specific measures identified.

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Batch processes at elevated temperatures

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Formulate in enclosed or ventilated mixing vessels.

.

Process sampling

No other specific measures identified.

.

Laboratory activities

No other specific measures identified.

.

Bulk transfers

No other specific measures identified.

.

Mixing operations

(open systems)

No other specific measures identified.

.

Transfer from/pouring from containers

Manual

No other specific measures identified.

.

Drum/batch transfers

No other specific measures identified.

.

Production of preparations or articles by tableting, compression, extrusion, pelletisation

No other specific measures identified.

.

Drum and small package filling

No other specific measures identified.

.

Equipment cleaning and maintenance

No other specific measures identified.

.

Storage

Store substance within a closed system.

3. Exposure estimation (Health 1)

Formulation & (Re)packing of Substances and Mixtures - Industrial

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Uses in Coatings - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES03a |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Uses in Coatings - Industrial |
| Process scope | Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| SPERC | ESVOC SPERC 4.3a.v1 |
| Worker | |
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC5 Mixing or blending in batch processes</p> <p>PROC7 Industrial spraying</p> <p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p> <p>PROC10 Roller application or brushing</p> <p>PROC13 Treatment of articles by dipping and pouring.</p> <p>PROC14 Tableting, compression, extrusion, pelletisation, granulation</p> <p>PROC15 Use as laboratory reagent.</p> |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|-----------------------|--------|
| Physical state | Liquid |
|-----------------------|--------|

Uses in Coatings - Industrial

| | |
|---|---|
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |
| <u>Frequency and duration of use</u> | Covers daily exposures up to 8 hours (unless stated differently). |
| <u>Other given operational conditions affecting workers exposure</u> | |
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |
| <u>Risk management measures</u> | |

Uses in Coatings - Industrial

General exposures (closed systems)

Handle substance within a closed system.

.

General exposures (closed systems)

With sample collection

Handle substance within a closed system.

.

Film formation - force drying, stoving and other technologies

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

Handle substance within a closed system.

.

Mixing operations

(closed systems)

General exposures (closed systems)

Handle substance within a closed system.

.

Film formation - air drying

No other specific measures identified.

.

Preparation of material for application

Mixing operations

(open systems)

No other specific measures identified.

.

Spraying (automatic/robotic)

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

.

Manual spraying

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

.

Material transfers

No other specific measures identified.

.

Roller, spreader, flow application

No other specific measures identified.

.

Dipping, immersion and pouring

No other specific measures identified.

.

Laboratory activities

No other specific measures identified.

.

Material transfers

Drum/batch transfers

Transfer from/pouring from containers

No other specific measures identified.

.

Production of preparations or articles by tableting, compression, extrusion, pelletisation

No other specific measures identified.

.

Equipment cleaning and maintenance

No other specific measures identified.

.

Storage

Store substance within a closed system.

Uses in Coatings - Industrial

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Uses in Coatings - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES03b |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Uses in Coatings - Professional |
| Process scope | Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods and film formation) and equipment cleaning, maintenance and associated laboratory activities. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.3b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring. PROC15 Use as laboratory reagent. PROC19 Manual activities involving hand contact |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|-----------------------|--------|
| Physical state | Liquid |
|-----------------------|--------|

Uses in Coatings - Professional

| | |
|---|---|
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |
| <u>Frequency and duration of use</u> | Covers daily exposures up to 8 hours (unless stated differently). |
| <u>Other given operational conditions affecting workers exposure</u> | |
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |
| <u>Risk management measures</u> | |

Uses in Coatings - Professional

General exposures (closed systems)

Handle substance within a closed system.

.

Filling/preparation of equipment from drums or containers.

Use in contained systems

Handle substance within a closed system.

.

Preparation of material for application

Use in contained batch processes

No other specific measures identified.

.

Film formation - air drying

Indoor/outdoor use.

No other specific measures identified.

.

Preparation of material for application

Indoor/outdoor use.

No other specific measures identified.

.

Material transfers

Drum/batch transfers

No other specific measures identified.

.

Roller, spreader, flow application

Indoor/outdoor use.

No other specific measures identified.

.

Manual spraying

Indoor/outdoor use.

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

.

Dipping, immersion and pouring

Indoor/outdoor use.

No other specific measures identified.

.

Laboratory activities

No other specific measures identified.

.

Hand application - fingerpaints, pastels, adhesives

Indoor/outdoor use.

No other specific measures identified.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Uses in Coatings - Professional

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Uses in Coatings - Consumer

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES03c |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Uses in Coatings - Consumer |
| Process scope | Covers the use in coatings (paints, inks, adhesives, etc.), including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning. |
| Product category | PC1 Adhesives, sealants. PC4 Anti-freeze and de-icing products. PC8 Biocidal products 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 treatment products PC24 Lubricants, greases and release products. PC31 Polishes and wax blends. PC34 Textile dyes and impregnating products |
| Main sector | SU21 Consumer uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.3c.v1 |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

PC1 Adhesives, sealants. : PC1_1 Glues, hobby use PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) PC1_3 Glue from spray PC1_4 Sealants PC4 Anti-freeze and de-icing products. : PC4_1 Washing car window PC4_2 Pouring into radiator PC4_3 Lock de-icer PC8 Biocidal products , PC8a Excipient only : PC8_1 Laundry and dish-washing products PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Uses in Coatings - Consumer

Product characteristics

Physical state

Liquid

Vapour pressure

300 Pa

Concentration details

PC1 Adhesives, sealants. : Covers concentrations up to 30 %. PC4_1 Washing car window : Covers concentrations up to 1 %. PC4_2 Pouring into radiator : Covers concentrations up to 10 %. PC4_3 Lock de-icer : Covers concentrations up to 50 %. PC8_1 Laundry and dish-washing products , PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) : Covers concentrations up to 5 %. PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) : Covers concentrations up to 15 %.

PC1_1 Glues, hobby use : Avoid using at a product concentration greater than 3%. PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) : Avoid using at a product concentration greater than 3.3%. PC1_3 Glue from spray : Avoid using at a product concentration greater than 11%. PC1_4 Sealants : Avoid using at a product concentration greater than 2,5%. PC4_2 Pouring into radiator : Avoid using at a product concentration greater than 2.5%. PC4_3 Lock de-icer : Avoid using at a product concentration greater than 45%. PC8_1 Laundry and dish-washing products : Avoid using at a product concentration greater than 3.5%. PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) : Avoid using at a product concentration greater than 11%.

Amounts used

PC1_1 Glues, hobby use

For each use event, covers use amounts up to 9 g.

For each use event, avoid using a product amount of greater than 5 g.

PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue)

For each use event, covers use amounts up to 6390 g.

PC1_3 Glue from spray

For each use event, covers use amounts up to 85.05 g.

PC1_4 Sealants

For each use event, covers use amounts up to 75 g.

For each use event, avoid using a product amount of greater than 25 g.

PC4_1 Washing car window

For each use event, covers use amounts up to 0.5 g.

PC4_2 Pouring into radiator

For each use event, covers use amounts up to 2000 g.

PC4_3 Lock de-icer

For each use event, covers use amounts up to 4 g.

PC8_1 Laundry and dish-washing products

For each use event, covers use amounts up to 15 g.

PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

For each use event, covers use amounts up to 27 g.

PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

For each use event, covers use amounts up to 35 g.

Frequency and duration of use

Uses in Coatings - Consumer

Covers use up to 1 time(s)/day.
Covers use up to 365 days/year.
Unless otherwise stated.

PC1_1 Glues, hobby use

Covers exposure up to 4.00 hours per event.

PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue)

Covers exposure up to 6.00 hours per event.

Covers use up to 1 day(s)/year.

PC1_3 Glue from spray

Covers exposure up to 4.00 hours per event.

Covers use up to 6 days/year.

PC1_4 Sealants

Covers exposure up to 1.00 hours per event.

PC4_1 Washing car window

Covers exposure up to 0.02 hours per event.

PC4_2 Pouring into radiator

Covers exposure up to 0.17 hours per event.

PC4_3 Lock de-icer

Covers exposure up to 0.25 hours per event.

PC8_1 Laundry and dish-washing products

Covers exposure up to 0.50 hours per event.

PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Covers exposure up to 0.33 hours per event.

Covers use up to 128 days/year.

PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Covers exposure up to 0.17 hours per event.

Covers use up to 128 days/year.

Human factors not influenced by risk management

Potentially exposed body parts

PC1_1 Glues, hobby use , PC1_3 Glue from spray , PC1_4 Sealants : Covers skin contact area up to 35.73 cm². PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) : Covers skin contact area up to 110.00 cm². PC4_1 Washing car window : Covers skin contact area up to 6 600 cm². PC4_2 Pouring into radiator : Covers skin contact area up to 428.00 cm². PC4_3 Lock de-icer : Covers skin contact area up to 214.40 cm². PC8_1 Laundry and dish-washing products , PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) : Covers skin contact area up to 857.50 cm². PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) : Covers skin contact area up to 428,00 cm².

Other given operational conditions affecting Non-industrial exposure

Setting

Covers use under typical household ventilation. Covers use in room size of 20 m³. Unless otherwise stated.

Temperature

Assumes activities are at ambient temperature (unless stated differently).

Room size

PC4 Anti-freeze and de-icing products. : Covers use in a one car garage (34 m³) under typical ventilation.

Ventilation rate

PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) , PC1_4 Sealants : Avoid using when windows closed.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

Uses in Coatings - Consumer

2. Conditions of use affecting exposure (Non-industrial - Health 2)

Control of Non-industrial exposure

PC9a Coatings and paints, thinners, paint removers. : PC9a_1 Water-borne latex wall paint
 PC9a_2 Solvent-rich, high-solid, water-borne paint PC9a_3 Aerosol spray can. PC9a_4
 Removers (paint-, glue-, wallpaper-, sealant-remover). PC9b Fillers, putties, plasters,
 modelling clay. : PC9b_1 Fillers and putty PC9b_2 Plasters and floor equalisers PC9b_3
 Modelling clay PC9c Finger paints.

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details

PC9a_1 Water-borne latex wall paint : Covers concentrations up to 1,5 %. PC9a_2 Solvent-rich, high-solid, water-borne paint : Covers concentrations up to 27,5 %. PC9a_3 Aerosol spray can. , PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). : Covers concentrations up to 50 %. PC9b_1 Fillers and putty , PC9b_2 Plasters and floor equalisers : Covers concentrations up to 2 %. PC9b_3 Modelling clay : Covers concentrations up to 1 %. PC9c Finger paints. : Covers concentrations up to 50 %.

PC9a_1 Water-borne latex wall paint Avoid using at a product concentration greater than 1,5%. PC9a_2 Solvent-rich, high-solid, water-borne paint Avoid using at a product concentration greater than 5%. PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). Avoid using at a product concentration greater than 14%. PC9b_2 Plasters and floor equalisers Avoid using at a product concentration greater than 1,8%. PC9b_3 Modelling clay Avoid using at a product concentration greater than 0,027%. PC9c Finger paints. Avoid using at a product concentration greater than 0,025%.

Amounts used

PC9a_1 Water-borne latex wall paint
 For each use event, covers use amounts up to 2 760 g.
 PC9a_2 Solvent-rich, high-solid, water-borne paint
 For each use event, covers use amounts up to 744 g.
 PC9a_3 Aerosol spray can.
 For each use event, covers use amounts up to 215 g.
 PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover).
 For each use event, covers use amounts up to 491 g.
 PC9b_1 Fillers and putty
 For each use event, covers use amounts up to 85 g.
 PC9b_2 Plasters and floor equalisers
 For each use event, covers use amounts up to 13 800 g.
 For each use event, avoid using a product amount of greater than 900 g.
 PC9b_3 Modelling clay
 For each use event, covers use amounts up to 37 500 g.
 PC9c Finger paints.
 For each use event, covers use amounts up to 37 500 g.

Frequency and duration of use

Uses in Coatings - Consumer

Covers use up to 1 time(s)/day.

PC9a_1 Water-borne latex wall paint

Covers exposure up to 2,20 hours per event.

Covers use up to 4 day(s)/year.

PC9a_2 Solvent-rich, high-solid, water-borne paint

Covers exposure up to 2,20 hours per event.

Covers use up to 6 day(s)/year.

PC9a_3 Aerosol spray can.

Covers exposure up to 0,33 hours per event.

Covers use up to 2 day(s)/year.

PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover).

Covers exposure up to 2,00 hours per event.

Covers use up to 3 day(s)/year.

PC9b_1 Fillers and putty

Covers exposure up to 4,00 hours per event.

Covers use up to 12 day(s)/year.

PC9b_2 Plasters and floor equalisers

Covers exposure up to 2,00 hours per event.

Covers use up to 12 day(s)/year.

PC9b_3 Modelling clay

Covers exposure up to 8,00 hours per event.

Covers use up to 365 day(s)/year.

PC9c Finger paints.

Covers exposure up to 8,00 hours per event.

Covers use up to 365 day(s)/year.

Human factors not influenced by risk management

Potentially exposed body parts

PC9a_1 Water-borne latex wall paint , PC9a_2 Solvent-rich, high-solid, water-borne paint : Covers skin contact area up to 428,75 cm². PC9a_3 Aerosol spray can. : Covers skin contact area up to 6 600 cm². PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). : Covers skin contact area up to 857,50 cm². PC9b_1 Fillers and putty : Covers skin contact area up to 35,73 cm². PC9b_2 Plasters and floor equalisers : Covers skin contact area up to 857,50 cm². PC9b_3 Modelling clay , PC9c Finger paints. : Covers skin contact area up to 254,40 cm².

PC9b_3 Modelling clay For each use event, assumes swallowed amount of (g): 1,0. PC9c Finger paints. For each use event, assumes swallowed amount of (g): 1,35.

Other given operational conditions affecting Non-industrial exposure

Setting

Covers use under typical household ventilation. Covers use in room size of 20 m³. Unless otherwise stated.

Temperature

Assumes activities are at ambient temperature (unless stated differently).

Room size

PC9a_3 Aerosol spray can. : Covers use in a one car garage (34 m³) under typical ventilation.

Ventilation rate

PC9a_1 Water-borne latex wall paint , PC9a_2 Solvent-rich, high-solid, water-borne paint , PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). , PC9b_2 Plasters and floor equalisers : Avoid using when windows closed.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 3)

Control of Non-industrial exposure

Uses in Coatings - Consumer

PC15 Non-metal-surface treatment products. : PC15_1 Water-borne latex wall paint PC15_2 Solvent rich, high solid, water-borne paint PC15_3 Aerosol spray can PC15_4 Removers (paint-, glue-, wall paper-, sealant remover) PC18 Ink and toners. PC23 Leather treatment products : PC23_1 Polishes, wax/cream (floor, furniture, shoes) PC23_2 Polishes, spray (furniture, shoes)

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details

PC15_1 Water-borne latex wall paint : Covers concentrations up to 1,5 %. PC15_2 Solvent rich, high solid, water-borne paint : Covers concentrations up to 27,5 %. PC15_3 Aerosol spray can , PC15_4 Removers (paint-, glue-, wall paper-, sealant remover) : Covers concentrations up to 50 %. PC18 Ink and toners. : Covers concentrations up to 10 %. PC23 Leather treatment products : Covers concentrations up to 50 %.

PC15_1 Water-borne latex wall paint Avoid using at a product concentration greater than 1,5%. PC15_2 Solvent rich, high solid, water-borne paint Avoid using at a product concentration greater than 5%. PC15_4 Removers (paint-, glue-, wall paper-, sealant remover) Avoid using at a product concentration greater than 14%. PC18 Ink and toners. Avoid using at a product concentration greater than 0,45%. PC23_1 Polishes, wax/cream (floor, furniture, shoes) Avoid using at a product concentration greater than 6%.

Amounts used

PC15_1 Water-borne latex wall paint

For each use event, covers use amounts up to 2 760 g.

PC15_2 Solvent rich, high solid, water-borne paint

For each use event, covers use amounts up to 744 g.

PC15_3 Aerosol spray can

For each use event, covers use amounts up to 215 g.

PC15_4 Removers (paint-, glue-, wall paper-, sealant remover)

For each use event, covers use amounts up to 491 g.

PC18 Ink and toners.

For each use event, covers use amounts up to 40 g.

PC23 Leather treatment products

For each use event, covers use amounts up to 56 g.

Frequency and duration of use

Uses in Coatings - Consumer

Covers use up to 1 time(s)/day.

PC15_1 Water-borne latex wall paint

Covers exposure up to 2,20 hours per event.

Covers use up to 4 day(s)/year.

PC15_2 Solvent rich, high solid, water-borne paint

Covers exposure up to 2,20 hours per event.

Covers use up to 6 day(s)/year.

PC15_3 Aerosol spray can

Covers exposure up to 0,33 hours per event.

Covers use up to 2 day(s)/year.

PC15_4 Removers (paint-, glue-, wall paper-, sealant remover)

Covers exposure up to 2,00 hours per event.

Covers use up to 3 day(s)/year.

PC18 Ink and toners.

Covers exposure up to 2,20 hours per event.

Covers use up to 365 day(s)/year.

PC23_1 Polishes, wax/cream (floor, furniture, shoes)

Covers exposure up to 1,23 hours per event.

Covers use up to 29 day(s)/year.

PC23_2 Polishes, spray (furniture, shoes)

Covers exposure up to 0,33 hours per event.

Covers use up to 8 day(s)/year.

Human factors not influenced by risk management

Potentially exposed body parts PC15_1 Water-borne latex wall paint , PC15_2 Solvent rich, high solid, water-borne paint : Covers skin contact area up to 428,75 cm². PC15_3 Aerosol spray can : Covers skin contact area up to 6 600 cm². PC15_4 Removers (paint-, glue-, wall paper-, sealant remover) : Covers skin contact area up to 857,50 cm². PC18 Ink and toners. : Covers skin contact area up to 71,40 cm². PC23 Leather treatment products : Covers skin contact area up to 430,00 cm².

Other given operational conditions affecting Non-industrial exposure

Setting Covers use under typical household ventilation. Covers use in room size of 20 m³. Unless otherwise stated.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Room size PC15_3 Aerosol spray can : Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 4)

Control of Non-industrial exposure

PC24 Lubricants, greases and release products. : PC24_1 Liquids PC24_2 Pastes PC24_3 Sprays PC31 Polishes and wax blends. : PC31_1 Polishes, wax/cream (floor, furniture, shoes) PC31_2 Polishes, spray (furniture, shoes) PC34 Textile dyes and impregnating products

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Uses in Coatings - Consumer

Concentration details

PC24_1 Liquids Covers concentrations up to 100 %. PC24_2 Pastes Covers concentrations up to 20 %. PC24_3 Sprays Covers concentrations up to 50 %. PC31 Polishes and wax blends. Covers concentrations up to 50 %. PC34 Textile dyes and impregnating products Covers concentrations up to 10 %.

PC31_1 Polishes, wax/cream (floor, furniture, shoes) Avoid using at a product concentration greater than 2,4%. PC34 Textile dyes and impregnating products Avoid using at a product concentration greater than 1,1%.

Amounts used

PC24_1 Liquids

For each use event, covers use amounts up to 2 200 g.

PC24_2 Pastes

For each use event, covers use amounts up to 34 g.

PC24_3 Sprays

For each use event, covers use amounts up to 73 g.

PC31_1 Polishes, wax/cream (floor, furniture, shoes)

For each use event, covers use amounts up to 142 g.

PC31_2 Polishes, spray (furniture, shoes)

For each use event, covers use amounts up to 35 g.

PC34 Textile dyes and impregnating products

For each use event, covers use amounts up to 115 g.

For each use event, avoid using a product amount of greater than 45 g.

Frequency and duration of use

Covers use up to 1 time(s)/day.

.

PC24_1 Liquids

Covers exposure up to 0,17 hours per event.

Covers use up to 4 day(s)/year.

PC24_2 Pastes

Covers exposure up to 4,00 hours per event.

Covers use up to 10 day(s)/year.

PC24_3 Sprays

Covers exposure up to 0,17 hours per event.

Covers use up to 6 day(s)/year.

PC31_1 Polishes, wax/cream (floor, furniture, shoes)

Covers exposure up to 1,23 hours per event.

Covers use up to 29 day(s)/year.

PC31_2 Polishes, spray (furniture, shoes)

Covers exposure up to 0,33 hours per event.

Covers use up to 8 day(s)/year.

PC34 Textile dyes and impregnating products

Covers exposure up to 1,00 hours per event.

Covers use up to 365 day(s)/year.

Human factors not influenced by risk management

Potentially exposed body parts

PC24_1 Liquids , PC24_2 Pastes : Covers skin contact area up to 468,00 cm². PC24_3 Sprays : Covers skin contact area up to 428,75 cm². PC31 Polishes and wax blends. : Covers skin contact area up to 430,00 cm². PC34 Textile dyes and impregnating products : Covers skin contact area up to 857,50 cm².

Other given operational conditions affecting Non-industrial exposure

Setting

Covers use under typical household ventilation. Covers use in room size of 20 m³. Unless otherwise stated.

Uses in Coatings - Consumer

| | |
|--|---|
| Temperature | Assumes activities are at ambient temperature (unless stated differently). |
| Room size | PC24_1 Liquids : Covers use in a one car garage (34 m ³) under typical ventilation. PC34 Textile dyes and impregnating products : Avoid using in room size less than 34 m ³ . |
| <u>Other given operational conditions affecting Non-industrial exposure</u> | No specific risk management measure identified beyond those operational conditions stated. |

3. Exposure estimation (Health 1)

| | |
|--------------------------|---|
| Assessment method | The ECETOC TRA tool has been used to estimate consumer exposures, unless otherwise indicated. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use. |
|--------------------------|---|

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Cleaning Agents - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES04a |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Cleaning Agents - Industrial |
| Process scope | Covers the use as a component of cleaning products, including transfer from storage, pouring/unloading from drums or containers and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| SPERC | ESVOC SPERC 4.4a.v1 |
| Worker | |
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC7 Industrial spraying</p> <p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC10 Roller application or brushing</p> <p>PROC13 Treatment of articles by dipping and pouring.</p> |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Use in Cleaning Agents - Industrial

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Bulk transfers

No other specific measures identified.

.

Automated process with (semi) closed systems

Use in contained systems

No other specific measures identified.

.

Automated process with (semi) closed systems

Drum/batch transfers

No other specific measures identified.

.

Application of cleaning products in closed systems

No other specific measures identified.

.

Filling/preparation of equipment from drums or containers.

No other specific measures identified.

.

Use in contained batch processes

No other specific measures identified.

.

Degreasing small objects in cleaning station

No other specific measures identified.

.

Cleaning with low-pressure washers

No other specific measures identified.

.

Cleaning with high-pressure washers

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

.

Surface cleaning

Manual

No other specific measures identified.

.

Storage

Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Use in Cleaning Agents - Industrial

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Cleaning Agents - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES04b |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use in Cleaning Agents - Professional |
| Process scope | Covers the use as a component of cleaning products, including pouring/unloading from drums or containers and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand). |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.4b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring. PROC19 Manual activities involving hand contact |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Use in Cleaning Agents - Professional

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting

Assumes a good basic standard of occupational hygiene is implemented.

Temperature

Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Use in Cleaning Agents - Professional

Filling/preparation of equipment from drums or containers.
No other specific measures identified.

.
Automated process with (semi) closed systems
Use in contained systems
No other specific measures identified.

.
Automated process with (semi) closed systems
Drum/batch transfers
Use in contained systems
No other specific measures identified.

.
Semi-automated process (e.g. semi-automatic application of floor care and maintenance products)
No other specific measures identified.

.
Surface cleaning
Manual
Dipping, immersion and pouring
No other specific measures identified.

.
Cleaning with low-pressure washers
Rolling, brushing
No spraying
No other specific measures identified.

.
Cleaning with high-pressure washers
Spraying
Indoor/outdoor use.
Wear suitable gloves tested to EN374.
Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

.
Surface cleaning
Manual
Spraying
No other specific measures identified.

.
Ad hoc manual application via trigger sprays, dipping, etc.
Rolling, brushing
No other specific measures identified.

.
Application of cleaning products in closed systems
Outdoor.
No other specific measures identified.

.
Cleaning of medical devices
No other specific measures identified.

.
Storage
Store substance within a closed system.

3. Exposure estimation (Health 1)

Use in Cleaning Agents - Professional

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Cleaning Agents - Consumer

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES04c |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use in Cleaning Agents - Consumer |
| Process scope | Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products. |
| Product category | PC3 Air care products. PC4 Anti-freeze and de-icing products. PC8 Biocidal products PC9a Coatings and paints, thinners, paint removers. PC9b Fillers, putties, plasters, modelling clay. PC9c Finger paints. PC24 Lubricants, greases and release products. PC35 Washing and cleaning products PC38 Welding and soldering products, flux products |
| Main sector | SU21 Consumer uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.4c.v1 |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

PC3 Air care products. : PC3_1 Air care, instant action (aerosol sprays) PC3_n Air care, instant action (aerosol sprays) - pesticidal - excipient only PC3_2 Air care, continuous action (solid and liquid) PC3_n Air care, continuous action (solid and liquid) - pesticidal - excipient only

Product characteristics

| | |
|------------------------|--------|
| Physical state | Liquid |
| Vapour pressure | 300 Pa |

Use in Cleaning Agents - Consumer

Concentration details

PC3_1 Air care, instant action (aerosol sprays) , PC3_n Air care, instant action (aerosol sprays) - pesticidal - excipient only , PC3_n Air care, continuous action (solid and liquid) - pesticidal - excipient only : Covers concentrations up to 50 %. PC3_2 Air care, continuous action (solid and liquid) : Covers concentrations up to 10 %.

PC3_n Air care, continuous action (solid and liquid) - pesticidal - excipient only : Avoid using at a product concentration greater than 25%.

Amounts used

PC3_1 Air care, instant action (aerosol sprays)

For each use event, covers use amounts up to 0.1 g.

PC3_n Air care, instant action (aerosol sprays) - pesticidal - excipient only

For each use event, covers use amounts up to 0.5 g.

PC3_2 Air care, continuous action (solid and liquid)

For each use event, covers use amounts up to 0.48 g.

PC3_n Air care, continuous action (solid and liquid) - pesticidal - excipient only

For each use event, covers use amounts up to 0.48 g.

Frequency and duration of use

Covers use up to 365 days/year.

.

PC3_1 Air care, instant action (aerosol sprays)

Covers use up to 4 time(s)/day.

Covers exposure up to 0.25 hours per event.

PC3_n Air care, instant action (aerosol sprays) - pesticidal - excipient only

Covers use up to 4 time(s)/day.

Covers exposure up to 0.25 hours per event.

PC3_2 Air care, continuous action (solid and liquid)

Covers use up to 1 time(s)/day.

Covers exposure up to 8.00 hours per event.

PC3_n Air care, continuous action (solid and liquid) - pesticidal - excipient only

Covers use up to 1 time(s)/day.

Covers exposure up to 8.00 hours per event.

Human factors not influenced by risk management

Potentially exposed body parts

PC3_1 Air care, instant action (aerosol sprays) , PC3_n Air care, instant action (aerosol sprays) - pesticidal - excipient only : Covers skin contact area up to 857,5 cm². PC3_2 Air care, continuous action (solid and liquid) , PC3_n Air care, continuous action (solid and liquid) - pesticidal - excipient only : Covers skin contact area up to 35.70 cm².

Other given operational conditions affecting Non-industrial exposure

Setting

Covers use under typical household ventilation. Covers use in room size of 20 m³.

Temperature

Assumes activities are at ambient temperature (unless stated differently).

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 2)

Control of Non-industrial exposure

PC4 Anti-freeze and de-icing products. : PC4_1 Washing car window PC4_2 Pouring into radiator PC4_3 Lock de-icer PC8 Biocidal products , PC8a Excipient only : PC8_1 Laundry and dish-washing products PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Use in Cleaning Agents - Consumer

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details

PC4_1 Washing car window Covers concentrations up to 1 %. PC4_2 Pouring into radiator Covers concentrations up to 10 %. PC4_3 Lock de-icer Covers concentrations up to 50 %. PC8_1 Laundry and dish-washing products , PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) Covers concentrations up to 5 %. PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) Covers concentrations up to 15 %.

PC4_2 Pouring into radiator Avoid using at a product concentration greater than 2,5%. PC4_3 Lock de-icer Avoid using at a product concentration greater than 45%. PC8_1 Laundry and dish-washing products Avoid using at a product concentration greater than 3,5%. PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) Avoid using at a product concentration greater than 11%.

Amounts used

PC4_1 Washing car window

For each use event, covers use amounts up to 0,5 g.

PC4_2 Pouring into radiator

For each use event, covers use amounts up to 2000 g.

PC4_3 Lock de-icer

For each use event, covers use amounts up to 4 g.

PC8_1 Laundry and dish-washing products

For each use event, covers use amounts up to 15 g.

PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

For each use event, covers use amounts up to 27 g.

PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

For each use event, covers use amounts up to 35 g.

Frequency and duration of use

Covers use up to 1 time(s)/day.

Covers use up to 365 days/year.

Unless otherwise stated.

.

PC4_1 Washing car window

Covers exposure up to 0,02 hours per event.

PC4_2 Pouring into radiator

Covers exposure up to 0,17 hours per event.

PC4_3 Lock de-icer

Covers exposure up to 0,25 hours per event.

PC8_1 Laundry and dish-washing products

Covers exposure up to 0,50 hours per event.

PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Covers exposure up to 0,33 hours per event.

Covers use up to 128 day(s)/year.

PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Covers exposure up to 0,17 hours per event.

Covers use up to 128 day(s)/year.

Human factors not influenced by risk management

Use in Cleaning Agents - Consumer

Potentially exposed body parts PC4_1 Washing car window : Covers skin contact area up to 857,5 cm². PC4_2 Pouring into radiator : Covers skin contact area up to 428,0 cm². PC4_3 Lock de-icer : Covers skin contact area up to 214,4 cm². PC8_1 Laundry and dish-washing products , PC8_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) : Covers skin contact area up to 857,5 cm². PC8_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) : Covers skin contact area up to 428,0 cm².

Other given operational conditions affecting Non-industrial exposure

Setting PC4 Anti-freeze and de-icing products. : Covers use in a one car garage (34 m³) under typical ventilation. PC8 Biocidal products : Covers use under typical household ventilation. Covers use in room size of 20 m³.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 3)

Control of Non-industrial exposure

PC9a Coatings and paints, thinners, paint removers. : PC9a_1 Water-borne latex wall paint PC9a_2 Solvent-rich, high-solid, water-borne paint PC9a_3 Aerosol spray can. PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). PC9b Fillers, putties, plasters, modelling clay. : PC9b_1 Fillers and putty PC9b_2 Plasters and floor equalisers PC9b_3 Modelling clay PC9c Finger paints.

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details PC9a_1 Water-borne latex wall paint : Covers concentrations up to 1,5 %. PC9a_2 Solvent-rich, high-solid, water-borne paint : Covers concentrations up to 27,5 %. PC9a_3 Aerosol spray can. , PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). : Covers concentrations up to 50 %. PC9b_1 Fillers and putty , PC9b_2 Plasters and floor equalisers : Covers concentrations up to 2 %. PC9b_3 Modelling clay : Covers concentrations up to 1 %. PC9c Finger paints. : Covers concentrations up to 50 %.

PC9a_1 Water-borne latex wall paint Avoid using at a product concentration greater than 1,5%. PC9a_2 Solvent-rich, high-solid, water-borne paint Avoid using at a product concentration greater than 5%. PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). Avoid using at a product concentration greater than 14%. PC9b_2 Plasters and floor equalisers Avoid using at a product concentration greater than 1,8%. PC9b_3 Modelling clay Avoid using at a product concentration greater than 0,027%. PC9c Finger paints. Avoid using at a product concentration greater than 0,025%.

Amounts used

Use in Cleaning Agents - Consumer

For each use event, covers use amounts up to 13 800 g.
Unless otherwise stated.

PC9a_1 Water-borne latex wall paint

For each use event, covers use amounts up to 2760 g.

PC9a_2 Solvent-rich, high-solid, water-borne paint

For each use event, covers use amounts up to 744 g.

PC9a_3 Aerosol spray can.

For each use event, covers use amounts up to 215 g.

PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover).

For each use event, covers use amounts up to 491 g.

PC9b_1 Fillers and putty

For each use event, covers use amounts up to 85 g.

PC9b_2 Plasters and floor equalisers : For each use event, avoid using a product amount of greater than 900 g.

Frequency and duration of use

Covers use up to 1 time(s)/day.

.

PC9a_1 Water-borne latex wall paint

Covers exposure up to 2,20 hours per event.

Covers use up to 4 day(s)/year.

PC9a_2 Solvent-rich, high-solid, water-borne paint

Covers exposure up to 2,20 hours per event.

Covers use up to 6 day(s)/year.

PC9a_3 Aerosol spray can.

Covers exposure up to 0,33 hours per event.

Covers use up to 2 day(s)/year.

PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover).

Covers exposure up to 2,00 hours per event.

Covers use up to 3 day(s)/year.

PC9b_1 Fillers and putty

Covers exposure up to 4,00 hours per event.

Covers use up to 12 day(s)/year.

PC9b_2 Plasters and floor equalisers

Covers exposure up to 2,00 hours per event.

Covers use up to 12 day(s)/year.

PC9b_3 Modelling clay

Covers exposure up to 8 hours per event.

Covers use up to 365 day(s)/year.

PC9c Finger paints.

Covers exposure up to 8 hours per event.

Covers use up to 365 day(s)/year.

Human factors not influenced by risk management

Potentially exposed body parts

PC9a_1 Water-borne latex wall paint , PC9a_2 Solvent-rich, high-solid, water-borne paint : Covers skin contact area up to 428,75 cm². PC9a_3 Aerosol spray can , PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). : Covers skin contact area up to 857,50 cm². PC9b_1 Fillers and putty : Covers skin contact area up to 35,73 cm². PC9b_2 Plasters and floor equalisers : Covers skin contact area up to 857,50 cm². PC9b_3 Modelling clay , PC9c Finger paints. : Covers skin contact area up to 254,40 cm².

PC9b_3 Modelling clay For each use event, assumes swallowed amount of (g): 1. PC9c Finger paints. For each use event, assumes swallowed amount of (g): 1,35.

Use in Cleaning Agents - Consumer

Other given operational conditions affecting Non-industrial exposure

| | |
|-------------------------|--|
| Setting | Covers use under typical household ventilation. Covers use in room size of 20 m ³ . Unless otherwise stated. |
| Temperature | Assumes activities are at ambient temperature (unless stated differently). |
| Room size | PC9a_3 Aerosol spray can. : Covers use in a one car garage (34 m ³) under typical ventilation. |
| Ventilation rate | PC9a_1 Water-borne latex wall paint , PC9a_2 Solvent-rich, high-solid, water-borne paint , PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). , PC9b_2 Plasters and floor equalisers : Avoid using when windows closed. |

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 4)

Control of Non-industrial exposure

PC24 Lubricants, greases and release products. : PC24_1 Liquids PC24_2 Pastes PC24_3 Sprays PC35 Washing and cleaning products : PC35_1 Laundry and dish washing products PC35_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, carpet cleaners, metal cleaners) PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) PC38 Welding and soldering products, flux products

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details

PC24_1 Liquids Covers concentrations up to 100 %. PC24_2 Pastes Covers concentrations up to 20 %. PC24_3 Sprays Covers concentrations up to 50 %. PC35_1 Laundry and dish washing products , PC35_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, carpet cleaners, metal cleaners) Covers concentrations up to 5 %. PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) Covers concentrations up to 15 %. PC38 Welding and soldering products, flux products Covers concentrations up to 20 %.

PC35_1 Laundry and dish washing products Avoid using at a product concentration greater than 3,5%. PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) Avoid using at a product concentration greater than 11%. PC38 Welding and soldering products, flux products Avoid using at a product concentration greater than 5%.

Amounts used

PC24_1 Liquids
For each use event, covers use amounts up to 2200 g.

PC24_2 Pastes
For each use event, covers use amounts up to 34 g.

PC24_3 Sprays
For each use event, covers use amounts up to 73 g.

PC35_1 Laundry and dish washing products
For each use event, covers use amounts up to 15 g.

PC35_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, carpet cleaners, metal cleaners)
For each use event, covers use amounts up to 27 g.

PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)
For each use event, covers use amounts up to 35 g.

PC38 Welding and soldering products, flux products
For each use event, covers use amounts up to 12 g.

Use in Cleaning Agents - Consumer

Frequency and duration of use

Covers use up to 1 time(s)/day.

.

PC24_1 Liquids

Covers exposure up to 0,17 hours per event.

Covers use up to 4 day(s)/year.

PC24_2 Pastes

Covers exposure up to 4,00 hours per event.

Covers use up to 10 day(s)/year.

PC24_3 Sprays

Covers exposure up to 0,17 hours per event.

Covers use up to 6 day(s)/year.

PC35_1 Laundry and dish washing products

Covers exposure up to 0,50 hours per event.

Covers use up to 365 day(s)/year.

PC35_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, carpet cleaners, metal cleaners)

Covers exposure up to 0,33 hours per event.

Covers use up to 128 day(s)/year.

PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Covers exposure up to 0,17 hours per event.

Covers use up to 128 day(s)/year.

PC38 Welding and soldering products, flux products

Covers exposure up to 1,00 hours per event.

Covers use up to 364 day(s)/year.

Human factors not influenced by risk management

Potentially exposed body parts

PC24_1 Liquids , PC24_2 Pastes : Covers skin contact area up to 468,00 cm². PC24_3 Sprays : Covers skin contact area up to 428,75 cm². PC35_1 Laundry and dish washing products , PC35_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, carpet cleaners, metal cleaners) : Covers skin contact area up to 857,50 cm². PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) : Covers skin contact area up to 428,00 cm². PC38 Welding and soldering products, flux products : Covers skin contact area up to 857,5 cm².

Other given operational conditions affecting Non-industrial exposure

Setting

Covers use under typical household ventilation. Covers use in room size of 20 m³. Unless otherwise stated.

Temperature

Assumes activities are at ambient temperature (unless stated differently).

Room size

PC24_1 Liquids : Covers use in a one car garage (34 m³) under typical ventilation.

Ventilation rate

PC38 Welding and soldering products, flux products : Avoid using when windows closed.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate consumer exposures, unless otherwise indicated.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Use in Cleaning Agents - Consumer

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Lubricants - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES06a |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Lubricants - Industrial |
| Process scope | Covers the use of formulated lubricants in closed and open systems, including transfer operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) ERC7 Use of functional fluid at industrial site |
| SPERC | ESVOC SPERC 4.6a.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC7 Industrial spraying PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture 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 in metal working operations PROC18 General greasing/lubrication at high kinetic energy conditions |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |

Lubricants - Industrial

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

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Lubricants - Industrial

General exposures (closed systems)

Handle substance within a closed system.

.

General exposures (open systems)

No other specific measures identified.

.

Bulk transfers

No other specific measures identified.

.

Filling/preparation of equipment from drums or containers.

No other specific measures identified.

.

Initial factory fill of equipment

No other specific measures identified.

.

Operation and lubrication of high-energy open equipment

No other specific measures identified.

.

Rolling, brushing

Manual

No other specific measures identified.

.

Treatment by dipping and pouring

Allow time for product to drain from workpiece.

.

Spraying

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

.

Maintenance (of larger plant items) and machine set up

No other specific measures identified.

.

Maintenance (of larger plant items) and machine set up

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Maintenance of small items

Non-dedicated facility

No other specific measures identified.

.

Remanufacture of reject articles

No other specific measures identified.

.

Storage

Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

Lubricants - Industrial

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Lubricants - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES06b |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Lubricants - Professional |
| Process scope | Covers the use of formulated lubricants within closed or contained systems, including incidental exposures during material transfers, operation of engines and similar articles, equipment maintenance and disposal of waste oil. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor) |
| SPERC | ESVOC SPERC 9.6b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture 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 in metal working operations PROC18 General greasing/lubrication at high kinetic energy conditions PROC20 Use of functional fluids in small devices |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |

Lubricants - Professional

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

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Lubricants - Professional

General exposures (closed systems)

Handle substance within a closed system.

.

Operation of equipment containing engine oils and similar

No other specific measures identified.

.

General exposures (open systems)

No other specific measures identified.

.

Bulk transfers

Dedicated facility

No other specific measures identified.

.

Filling/preparation of equipment from drums or containers.

Dedicated facility

No other specific measures identified.

.

Filling/preparation of equipment from drums or containers.

Non-dedicated facility

No other specific measures identified.

.

Operation and lubrication of high-energy open equipment

Indoor/outdoor use.

No other specific measures identified.

.

Maintenance (of larger plant items) and machine set up

No other specific measures identified.

.

Maintenance (of larger plant items) and machine set up

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Maintenance of small items

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Engine lubricant service

No other specific measures identified.

.

Rolling, brushing

Manual

No other specific measures identified.

.

Spraying

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

.

Treatment by dipping and pouring

No other specific measures identified.

.

Storage

Store substance within a closed system.

Lubricants - Professional

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario Lubricants - Consumer

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES06c |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Lubricants - Consumer |
| Process scope | Covers the consumer use of formulated lubricants in closed and open systems, including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil. |
| Product category | PC1 Adhesives, sealants. PC24 Lubricants, greases and release products. PC31 Polishes and wax blends. |
| Main sector | SU21 Consumer uses |
| Environment | |
| Environmental release category | ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor) |
| SPERC | ESVOC SPERC 9.6d.v1 |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

PC1 Adhesives, sealants. : PC1_1 Glues, hobby use PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) PC1_3 Glue from spray PC1_4 Sealants

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details Covers concentrations up to 30 %.

PC1_1 Glues, hobby use : Avoid using at a product concentration greater than 3%. PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) : Avoid using at a product concentration greater than 3.3%. PC1_3 Glue from spray : Avoid using at a product concentration greater than 11%. PC1_4 Sealants : Avoid using at a product concentration greater than 2.5%.

Amounts used

Lubricants - Consumer

PC1_1 Glues, hobby use

For each use event, covers use amounts up to 9 g.

For each use event, avoid using a product amount of greater than 5 g.

PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue)

For each use event, covers use amounts up to 6390 g.

PC1_3 Glue from spray

For each use event, covers use amounts up to 85.05 g.

PC1_4 Sealants

For each use event, covers use amounts up to 75 g.

For each use event, avoid using a product amount of greater than 25 g.

Frequency and duration of use

Covers use up to 1 time(s)/day.

.

PC1_1 Glues, hobby use

Covers exposure up to 4.00 hours per event.

Covers use up to 365 days/year.

PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue)

Covers exposure up to 6.00 hours per event.

Covers use up to 1 day(s)/year.

PC1_3 Glue from spray

Covers exposure up to 4.00 hours per event.

Covers use up to 6 days/year.

PC1_4 Sealants

Covers exposure up to 1.00 hours per event.

Covers use up to 365 days/year.

Human factors not influenced by risk management

Potentially exposed body parts

Covers skin contact area up to 35.73 cm². Unless otherwise stated. . PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) : Covers skin contact area up to 110.00 cm².

Other given operational conditions affecting Non-industrial exposure

Setting

Covers use under typical household ventilation. Covers use in room size of 20 m³.

Temperature

Assumes activities are at ambient temperature (unless stated differently).

Ventilation rate

PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) , PC1_4 Sealants : Avoid using when windows closed.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 2)

Control of Non-industrial exposure

PC24 Lubricants, greases and release products. : PC24_1 Liquids PC24_2 Pastes PC24_3 Sprays

Product characteristics

Physical state

Liquid

Vapour pressure

300 Pa

Concentration details

PC24_1 Liquids Covers concentrations up to 100 %. PC24_2 Pastes Covers concentrations up to 20 %. PC24_3 Sprays Covers concentrations up to 50 %.

Amounts used

Lubricants - Consumer

PC24_1 Liquids
For each use event, covers use amounts up to 2200 g.
PC24_2 Pastes
For each use event, covers use amounts up to 34 g.
PC24_3 Sprays
For each use event, covers use amounts up to 73 g.

Frequency and duration of use

Covers use up to 1 time(s)/day.

.

PC24_1 Liquids
Covers exposure up to 0,17 hours per event.
Covers use up to 4 days/year.
PC24_2 Pastes
Covers exposure up to 4,00 hours per event.
Covers use up to 10 days/year.
PC24_3 Sprays
Covers exposure up to 0,17 hours per event.
Covers use up to 6 days/year.

Human factors not influenced by risk management

Potentially exposed body parts PC24_1 Liquids , PC24_2 Pastes Covers skin contact area up to 468,00 cm². : PC24_3 Sprays : Covers skin contact area up to 428,75 cm².

Other given operational conditions affecting Non-industrial exposure

Setting Covers use under typical household ventilation. Covers use in room size of 20 m³. Unless otherwise stated.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Room size PC24_1 Liquids : Covers use in a one car garage (34 m³) under typical ventilation.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

2. Conditions of use affecting exposure (Non-industrial - Health 3)

Control of Non-industrial exposure

PC31 Polishes and wax blends. : PC31_1 Polishes, wax/cream (floor, furniture, shoes)
PC31_2 Polishes, spray (furniture, shoes)

Product characteristics

Physical state Liquid

Vapour pressure 300 Pa

Concentration details Covers concentrations up to 50 %.

PC31_1 Polishes, wax/cream (floor, furniture, shoes) : Avoid using at a product concentration greater than 2,4%.

Amounts used

PC31_1 Polishes, wax/cream (floor, furniture, shoes)
For each use event, covers use amounts up to 142 g.
PC31_2 Polishes, spray (furniture, shoes)
For each use event, covers use amounts up to 35 g.

Frequency and duration of use

Lubricants - Consumer

Covers use up to 1 time(s)/day.

PC31_1 Polishes, wax/cream (floor, furniture, shoes)

Covers exposure up to 1,23 hours per event.

Covers use up to 29 days/year.

PC31_2 Polishes, spray (furniture, shoes)

Covers exposure up to 0,33 hours per event.

Covers use up to 8 days/year.

Human factors not influenced by risk management

Potentially exposed body parts Covers skin contact area up to 430,00 cm².

Other given operational conditions affecting Non-industrial exposure

Setting Covers use under typical household ventilation. Covers use in room size of 20 m³.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

3. Exposure estimation (Health 1)

Assessment method The ECETOC TRA tool has been used to estimate consumer exposures, unless otherwise indicated.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Metal Working Fluids/Rolling Oils - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES07a |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Metal Working Fluids/Rolling Oils - Industrial |
| Process scope | Covers the use in formulated MWFs/rolling oils, including transfer operations, rolling and annealing activities, cutting/machining activities, automated and manual application of corrosion protections (including brushing, dipping and spraying), equipment maintenance, draining and disposal of waste oils. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| SPERC | ESVOC SPERC 4.7a.v1 |
| Worker | |
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC5 Mixing or blending in batch processes</p> <p>PROC7 Industrial spraying</p> <p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p> <p>PROC10 Roller application or brushing</p> <p>PROC13 Treatment of articles by dipping and pouring.</p> <p>PROC17 Lubrication at high energy conditions in metal working operations</p> |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |

Use in Metal Working Fluids/Rolling Oils - Industrial

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

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Use in Metal Working Fluids/Rolling Oils - Industrial

General exposures (closed systems)

Handle substance within a closed system.

.

General exposures (open systems)

No other specific measures identified.

.

Bulk transfers

Clear transfer lines prior to de-coupling.

.

Filling/preparation of equipment from drums or containers.

No other specific measures identified.

.

Process sampling

Use dedicated equipment.

.

Metal machining operations

No other specific measures identified.

.

Treatment by dipping and pouring

No other specific measures identified.

.

Spraying

No other specific measures identified.

.

Rolling, brushing

Manual

No other specific measures identified.

.

Automated metal rolling/forming

Use in contained systems

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Semi-automated metal rolling/forming

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Semi-automated metal rolling/forming

No other specific measures identified.

.

Equipment cleaning and maintenance

Dedicated facility

No other specific measures identified.

.

Equipment cleaning and maintenance

Non-dedicated facility

No other specific measures identified.

.

Storage

Store substance within a closed system.

Spraying

.

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g.

Use in Metal Working Fluids/Rolling Oils - Industrial

spraying.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Metal Working Fluids/Rolling Oils - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES07b |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use in Metal Working Fluids/Rolling Oils - Professional |
| Process scope | Covers the use in formulated MWFs, including transfer operations, open and contained cutting/machining activities, automated and manual application of corrosion protections, draining and working on contaminated/ reject articles and disposal of waste oils. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.7c.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture 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 in metal working operations |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |

Use in Metal Working Fluids/Rolling Oils - Professional

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

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Use in Metal Working Fluids/Rolling Oils - Professional

General exposures (closed systems)

Handle substance within a closed system.

.

Bulk transfers

No other specific measures identified.

.

Filling/preparation of equipment from drums or containers.

Dedicated facility

No other specific measures identified.

.

Filling/preparation of equipment from drums or containers.

Non-dedicated facility

No other specific measures identified.

.

Process sampling

No other specific measures identified.

.

Metal machining operations

No other specific measures identified.

.

Rolling, brushing

Manual

No other specific measures identified.

.

Treatment by dipping and pouring

No other specific measures identified.

.

Equipment cleaning and maintenance

Non-dedicated facility

No other specific measures identified.

.

Equipment cleaning and maintenance

Dedicated facility

No other specific measures identified.

.

Storage

Store substance within a closed system.

.

Filling/preparation of equipment from drums or containers.

No other specific measures identified.

Spraying

.

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Use in Metal Working Fluids/Rolling Oils - Professional

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as Release Agents or Binders - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES10a |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use as Release Agents or Binders - Industrial |
| Process scope | Covers the use as binders and release agents, including material transfers, mixing, application (including spraying and brushing), mould forming and casting and handling of waste. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| SPERC | ESVOC SPERC 4.10a.v1 |
| Worker | |
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC6 Calendering operations.</p> <p>PROC7 Industrial spraying</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC10 Roller application or brushing</p> <p>PROC13 Treatment of articles by dipping and pouring.</p> <p>PROC14 Tableting, compression, extrusion, pelletisation, granulation</p> |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Use as Release Agents or Binders - Industrial

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Risk management measures

| | |
|--|--|
| Material transfers (closed systems) | No other specific measures identified. |
| . | |
| Material transfers Use in contained batch processes | No other specific measures identified. |
| . | |
| Drum/batch transfers | No other specific measures identified. |
| . | |
| Mixing operations (closed systems) | No other specific measures identified. |
| . | |
| Mixing operations (open systems) | No other specific measures identified. |
| . | |
| Mould forming | No other specific measures identified. |
| . | |
| Casting operations (open systems) | Operation is carried out at elevated temperature (> 20°C above ambient temperature). Aerosol generation due to elevated process temperature No other specific measures identified. |
| . | |
| Spraying Machine | Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). |
| . | |
| Rolling, brushing Manual | No other specific measures identified. |
| . | |
| Manual spraying | Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). |
| . | |
| Storage | Store substance within a closed system. |
| . | |
| Dipping, immersion and pouring | No other specific measures identified. |

3. Exposure estimation (Health 1)

| | |
|--------------------------|--|
| Assessment method | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated |
|--------------------------|--|

Use as Release Agents or Binders - Industrial

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as Release Agents or Binders - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES10b |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use as Release Agents or Binders - Professional |
| Process scope | Covers the use as binders and release agents, including material transfers, mixing, application by spraying, brushing and handling of waste. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.10b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC6 Calendering operations. PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC14 Tableting, compression, extrusion, pelletisation, granulation |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Use as Release Agents or Binders - Professional

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Material transfers
(closed systems)

No other specific measures identified.

.

Material transfers

Use in contained batch processes

No other specific measures identified.

.

Drum/batch transfers

No other specific measures identified.

.

Mixing operations

(closed systems)

No other specific measures identified.

.

Mixing operations

(open systems)

No other specific measures identified.

.

Mould forming

No other specific measures identified.

.

Casting operations

(open systems)

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Spraying

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

.

Rolling, brushing

Manual

No other specific measures identified.

.

Storage

No other specific measures identified.

.

Drum/batch transfers

Non-dedicated facility

No other specific measures identified.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Use as Release Agents or Binders - Professional

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as a Fuel - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES12a |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use as a Fuel - Industrial |
| Process scope | Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC7 Use of functional fluid at industrial site |
| SPERC | ESVOC SPERC 7.12a.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC16 Use of fuels |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Use as a Fuel - Industrial

Risk management measures

Bulk transfers
No other specific measures identified.

.

Drum/batch transfers
No other specific measures identified.

.

General exposures (closed systems)
Handle substance within a closed system.

.

Use as a fuel
Handle substance within a closed system.

.

Equipment cleaning and maintenance
No other specific measures identified.

.

Storage
Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as a Fuel - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES12b |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use as a Fuel - Professional |
| Process scope | Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor) |
| SPERC | ESVOC SPERC 9.12b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC16 Use of fuels |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Use as a Fuel - Professional

Risk management measures

Bulk transfers
Dedicated facility
No other specific measures identified.

.

Drum/batch transfers
No other specific measures identified.

.

Refuelling
No other specific measures identified.

.

General exposures (closed systems)
Handle substance within a closed system.

.

Use as a fuel
(closed systems)
No other specific measures identified.

.

Equipment cleaning and maintenance
No other specific measures identified.

.

Storage
Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as a Fuel - Consumer

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES12c |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use as a Fuel - Consumer |
| Process scope | Covers consumer uses in liquid fuels. |
| Product category | PC13 Fuels. |
| Main sector | SU21 Consumer uses |
| Environment | |
| Environmental release category | ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor) |
| SPERC | ESVOC SPERC 9.12c.v1 |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | 300 Pa |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Amounts used

PC13_1 Liquid: automotive refuelling
For each use event, covers use amounts up to 37.5 kg.
.

PC13_2 Liquid: scooter refuelling
For each use event, covers use amounts up to 3.75 kg.
.

PC13_3 Liquid: garden equipment - use
For each use event, covers use amounts up to 750 g.
.

PC13_4 Liquid: Garden equipment - Refuelling
For each use event, covers use amounts up to 750 g.
.

PC13_5 Liquid: lamp oil
For each use event, covers use amounts up to 100 g.
.

PC13_6 Liquid: home space heater fuel
For each use event, covers use amounts up to 3000 g.

Use as a Fuel - Consumer

Frequency and duration of use

Covers use up to 1 time(s)/day.
 Covers use up to 52 days/year.
 Unless otherwise stated.

.

PC13_1 Liquid: automotive refuelling
 Covers exposure up to 0.05 hours per event.
 PC13_2 Liquid: scooter refuelling
 Covers exposure up to 0.03 hours per event.
 PC13_3 Liquid: garden equipment - use
 Covers exposure up to 2.00 hours per event.
 Covers use up to 26 days/year.
 PC13_4 Liquid: Garden equipment - Refuelling
 Covers exposure up to 0.03 hours per event.
 Covers use up to 26 days/year.
 PC13_5 Liquid: lamp oil
 Covers exposure up to 0.01 hours per event.
 PC13_6 Liquid: home space heater fuel
 Covers exposure up to 0.03 hours per event.
 Covers use up to 365 days/year.

Human factors not influenced by risk management

Potentially exposed body parts Covers skin contact area up to 210.00 cm². Unless otherwise stated.

PC13_3 Liquid: garden equipment - use , PC13_4 Liquid: Garden equipment - Refuelling :
 Covers skin contact area up to 420,00 cm².

Other given operational conditions affecting Non-industrial exposure

Setting Covers outdoor use. Covers use in room size of 100 m³. Unless otherwise stated.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Room size PC13_4 Liquid: Garden equipment - Refuelling : Covers use in a one car garage (34 m³) under typical ventilation. PC13_5 Liquid: lamp oil , PC13_6 Liquid: home space heater fuel : Covers use under typical household ventilation. Covers use in room size of 20 m³.

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

3. Exposure estimation (Health 1)

Assessment method The ECETOC TRA tool has been used to estimate consumer exposures, unless otherwise indicated.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
 Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as Functional Fluids - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES13a |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use as Functional Fluids - Industrial |
| Process scope | Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment, including maintenance and related material transfers. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC7 Use of functional fluid at industrial site |
| SPERC | ESVOC SPERC 7.13a.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Use as Functional Fluids - Industrial

Risk management measures

Bulk transfers
(closed systems)
Transfer via enclosed lines.
.

Drum/batch transfers
No other specific measures identified.
.

Filling of articles/equipment
(closed systems)
No other specific measures identified.
.

Filling/preparation of equipment from drums or containers.
No other specific measures identified.
.

General exposures (closed systems)
No other specific measures identified.
.

General exposures (open systems)
No other specific measures identified.
.

General exposures (open systems)
Operation is carried out at elevated temperature (> 20°C above ambient temperature).
No other specific measures identified.
.

Remanufacture of reject articles
No other specific measures identified.
.

Equipment maintenance
No other specific measures identified.
.

Storage
Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as Functional Fluids - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES13b |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use as Functional Fluids - Professional |
| Process scope | Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in professional equipment, including maintenance and related material transfers. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor) |
| SPERC | ESVOC SPERC 9.13b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC20 Use of functional fluids in small devices |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Use as Functional Fluids - Professional

| | |
|--|--|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |
| <u>Risk management measures</u> | <p>Drum/batch transfers No other specific measures identified.</p> <p>.</p> <p>Transfer from/pouring from containers No other specific measures identified.</p> <p>.</p> <p>Filling/preparation of equipment from drums or containers. No other specific measures identified.</p> <p>.</p> <p>General exposures (closed systems) No other specific measures identified.</p> <p>.</p> <p>Operation of equipment containing engine oils and similar No other specific measures identified.</p> <p>.</p> <p>Operation of equipment containing engine oils and similar Operation is carried out at elevated temperature (> 20°C above ambient temperature). No other specific measures identified.</p> <p>.</p> <p>Remanufacture of reject articles No other specific measures identified.</p> <p>.</p> <p>Equipment maintenance No other specific measures identified.</p> <p>.</p> <p>Storage Store substance within a closed system.</p> |

3. Exposure estimation (Health 1)

| | |
|--------------------------|--|
| Assessment method | <p>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated</p> <p>Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.</p> |
|--------------------------|--|

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use as Functional Fluids - Consumer

Identification

| | |
|---------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES13c |

1. Title of exposure scenario

| | |
|--------------------------------|---|
| Main title | Use as Functional Fluids - Consumer |
| Process scope | Use of sealed items containing functional fluids e.g. transfer oils, hydraulic fluids, refrigerants. |
| Product category | PC16 Heat transfer fluids. PC17 Hydraulic fluids. |
| Main sector | SU21 Consumer uses |
| <u>Environment</u> | |
| Environmental release category | ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor) |
| SPERC | ESVOC SPERC 9.13c.v1 |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

PC16 Heat transfer fluids. PC17 Hydraulic fluids.

Product characteristics

| | |
|-----------------------|--|
| Physical state | Liquid |
| Vapour pressure | 300 Pa |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Amounts used

For each use event, covers use amounts up to 2200 g.

Frequency and duration of use

Covers exposure up to 0.17 hours per event.
Covers use up to 1 time(s)/day.
Covers use up to 4 days/year.

Human factors not influenced by risk management

| | |
|--------------------------------|---|
| Potentially exposed body parts | Covers skin contact area up to 468.00 cm ² . |
|--------------------------------|---|

Other given operational conditions affecting Non-industrial exposure

Use as Functional Fluids - Consumer

| | |
|--|--|
| Setting | Covers use in a one car garage (34 m ³) under typical ventilation. |
| Temperature | Assumes activities are at ambient temperature (unless stated differently). |
| <u>Other given operational conditions affecting Non-industrial exposure</u> | No specific risk management measure identified beyond those operational conditions stated. |

3. Exposure estimation (Health 1)

| | |
|--------------------------|---|
| Assessment method | The ECETOC TRA tool has been used to estimate consumer exposures, unless otherwise indicated. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use. |
|--------------------------|---|

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Road and Construction Applications - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES15b |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Road and Construction Applications - Professional |
| Process scope | Application of surface coatings and binders in road and construction activities, including paving uses, manual mastic and in the application of roofing and water-proofing membranes. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) ERC8f Widespread use leading to inclusion into/onto article (outdoor) |
| SPERC | ESVOC SPERC 8.15.v1 |
| Worker | |
| Process category | PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture 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. |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Use in Road and Construction Applications - Professional

Risk management measures

Drum/batch transfers

Non-dedicated facility

No other specific measures identified.

.

Drum/batch transfers

Dedicated facility

No other specific measures identified.

.

Drum/batch transfers

Dedicated facility

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Rolling, brushing

Manual

No other specific measures identified.

.

Spraying/fogging by machine application

Wear suitable gloves tested to EN374.

Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

.

Dipping, immersion and pouring

No other specific measures identified.

.

Equipment cleaning and maintenance

No other specific measures identified.

.

Drum and small package filling

No other specific measures identified.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Other Consumer Uses - Consumer

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Other Consumer Uses - Consumer |
| Process scope | Consumer uses e.g. as a carrier in cosmetics/personal care products, perfumes and fragrances. Note: for cosmetic and personal care products, risk assessment only required for the environment under REACH as human health is covered by alternative legislation. |
| Product category | PC28 Perfumes, fragrances. PC39 Cosmetics, personal care. |
| Main sector | SU21 Consumer uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.16.v1 |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

No exposure scenario required.

Exposure scenario

Use in Laboratories - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES17a |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use in Laboratories - Industrial |
| Process scope | Use of the substance within laboratory settings, including material transfers and equipment cleaning. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC2 Formulation into mixture ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| Worker | |
| Process category | PROC15 Use as laboratory reagent. |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Risk management measures

Laboratory activities
No other specific measures identified.

3. Exposure estimation (Health 1)

| | |
|--------------------------|--|
| Assessment method | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated |
|--------------------------|--|

Use in Laboratories - Industrial

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Laboratories - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES17b |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Laboratories - Professional |
| Process scope | Use of small quantities within laboratory settings, including material transfers and equipment cleaning. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) |
| SPERC | ESVOC SPERC 8.17.v1 |
| Worker | |
| Process category | PROC15 Use as laboratory reagent. |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|--------------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Risk management measures

Laboratory activities
No other specific measures identified.

3. Exposure estimation (Health 1)

| | |
|--------------------------|--|
| Assessment method | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated |
|--------------------------|--|

Use in Laboratories - Professional

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Polymer Processing - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES23a |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Polymer Processing - Industrial |
| Process scope | Processing of formulated polymers, including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers etc.), moulding, curing and forming activities, material reworks, storage and associated maintenance. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| SPERC | ESVOC SPERC 4.21a.v1 |
| Worker | |
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC5 Mixing or blending in batch processes</p> <p>PROC6 Calendering operations.</p> <p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p> <p>PROC13 Treatment of articles by dipping and pouring.</p> <p>PROC14 Tableting, compression, extrusion, pelletisation, granulation</p> <p>PROC21 Low energy manipulation and handling of substances bound in/on materials or articles</p> |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |

Use in Polymer Processing - Industrial

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

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Assumes a good basic standard of occupational hygiene is implemented.

Temperature Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Bulk transfers

No other specific measures identified.

.

Bulk weighing

Handle substance within a closed system.

.

Small scale weighing

No other specific measures identified.

.

Additive premixing

No other specific measures identified.

.

Calendering (including Banburys)

Operation is carried out at elevated temperature (> 20°C above ambient temperature).

No other specific measures identified.

.

Production of articles by dipping and pouring

No other specific measures identified.

.

Extrusion and masterbatching

No other specific measures identified.

.

Injection moulding of articles

No other specific measures identified.

.

Finishing operations

No other specific measures identified.

.

Equipment maintenance

No other specific measures identified.

.

Storage

Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Use in Polymer Processing - Industrial

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Polymer Processing - Professional

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES23b |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Polymer Processing - Professional |
| Process scope | Processing of formulated polymers, including material transfers, moulding and forming activities, material reworks and associated maintenance. |
| Main sector | SU22 Professional uses |
| Environment | |
| Environmental release category | ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) |
| SPERC | ESVOC SPERC 8.21b.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC6 Calendering operations. PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC21 Low energy manipulation and handling of substances bound in/on materials or articles |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Use in Polymer Processing - Professional

| | |
|--|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |
| <u>Risk management measures</u> | |
| | Bulk transfers (closed systems) Handle substance within a closed system. |
| | . |
| | Material transfers No other specific measures identified. |
| | . |
| | Injection moulding of articles No other specific measures identified. |
| | . |
| | Rework of articles No other specific measures identified. |
| | . |
| | Equipment maintenance No other specific measures identified. |
| | . |
| | Storage Store substance within a closed system. |

3. Exposure estimation (Health 1)

| | |
|--------------------------|--|
| Assessment method | The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. Qualitative approach used to conclude safe use. |
|--------------------------|--|

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Water Treatment Chemicals - Industrial

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES21a |

1. Title of exposure scenario

| | |
|---------------------------------------|---|
| Main title | Use in Water Treatment Chemicals - Industrial |
| Process scope | Covers the use of the substance for the treatment of water at industrial facilities in open and closed systems. |
| Main sector | SU3 Industrial uses |
| Environment | |
| Environmental release category | ERC3 Formulation into solid matrix ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) |
| SPERC | ESVOC SPERC 3.22a.v1 |
| Worker | |
| Process category | PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC13 Treatment of articles by dipping and pouring. |

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|------------------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|----------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
|----------------|---|

Use in Water Treatment Chemicals - Industrial

Temperature

Assumes use at not more than 20°C above ambient temperature, unless stated differently.

Risk management measures

Bulk transfers

Use in contained systems

Transfer via enclosed lines.

.

Drum/batch transfers

No other specific measures identified.

.

General exposures (closed systems)

No other specific measures identified.

.

General exposures (open systems)

No other specific measures identified.

.

Pouring from small containers

No other specific measures identified.

.

Equipment maintenance

No other specific measures identified.

.

Storage

Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.

Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Water Treatment Chemicals - Professional

Identification

| | |
|---------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES21b |

1. Title of exposure scenario

| | |
|--------------------------------|--|
| Main title | Use in Water Treatment Chemicals - Professional |
| Process scope | Covers the use of the substance for the treatment of water in open and closed systems. |
| Main sector | SU22 Professional uses |
| <u>Environment</u> | |
| Environmental release category | ERC8f Widespread use leading to inclusion into/onto article (outdoor) |
| SPERC | ESVOC SPERC 8.22b.v1 |

Worker

| | |
|------------------|--|
| Process category | <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p> <p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC13 Treatment of articles by dipping and pouring.</p> |
|------------------|--|

2. Conditions of use affecting exposure (Industrial - Environment 1)

Control of environmental exposure

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

| | |
|-----------------------|--|
| Physical state | Liquid |
| Vapour pressure | Vapour pressure < 0.5 kPa at STP. |
| Concentration details | Covers percentage substance in the product up to 100% (unless stated differently). |

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

| | |
|-------------|---|
| Setting | Assumes a good basic standard of occupational hygiene is implemented. |
| Temperature | Assumes use at not more than 20°C above ambient temperature, unless stated differently. |

Use in Water Treatment Chemicals - Professional

Risk management measures

Drum/batch transfers
No other specific measures identified.

.

General exposures (closed systems)
No other specific measures identified.

.

General exposures (open systems)
No other specific measures identified.

.

Pouring from small containers
No other specific measures identified.

.

Equipment maintenance
No other specific measures identified.

.

Storage
Store substance within a closed system.

3. Exposure estimation (Health 1)

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario

Use in Water Treatment Chemicals - Consumer

Identification

| | |
|----------------------------------|--|
| Product name | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2% |
| REACH registration number | 01-2119463258-33-0003 |
| Version number | 2017 |
| Es reference | ES21c |

1. Title of exposure scenario

| | |
|---------------------------------------|--|
| Main title | Use in Water Treatment Chemicals - Consumer |
| Process scope | Covers the use of the substance for the treatment of water in open and closed systems. |
| Product category | PC36 Water softeners. PC37 Water treatment chemicals. |
| Main sector | SU21 Consumer uses |
| Environment | |
| Environmental release category | ERC8f Widespread use leading to inclusion into/onto article (outdoor) |
| SPERC | ESVOC SpERC 8.22c.v1: |

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Control of environmental exposure (Non-industrial)

No exposure assessment presented for the environment.

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Control of Non-industrial exposure

PC36 Water softeners. PC37 Water treatment chemicals.

Product characteristics

| | |
|------------------------------|-----------------------------------|
| Physical state | Liquid |
| Vapour pressure | 300 Pa |
| Concentration details | Covers concentrations up to 20 %. |

Amounts used

For each use event, covers use amounts up to 10 g.

Frequency and duration of use

Covers exposure up to 4.00 hours per event.
Covers use up to 1 time(s)/day.
Covers use up to 365 days/year.

Human factors not influenced by risk management

| | |
|---------------------------------------|--|
| Potentially exposed body parts | Covers skin contact area up to 6600.00 cm ² . |
|---------------------------------------|--|

Use in Water Treatment Chemicals - Consumer

PC36 Water softeners. For each use event, assumes swallowed amount of (g): 1.5E-05 g
PC37 Water treatment chemicals. For each use event, assumes swallowed amount of (g):
1.54E-04 g

Other given operational conditions affecting Non-industrial exposure

Setting Covers use under typical household ventilation. Covers use in room size of 20 m³.

Temperature Assumes activities are at ambient temperature (unless stated differently).

Other given operational conditions affecting Non-industrial exposure

No specific risk management measure identified beyond those operational conditions stated.

3. Exposure estimation (Health 1)

Assessment method The ECETOC TRA tool has been used to estimate consumer exposures, unless otherwise indicated.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects.
Qualitative approach used to conclude safe use.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.