SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Supercedes date	Revision date	Revision Number
19/09/2024	24/03/2025	1.01
		Country-Language: FIN-EN

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

1.1. Product identifier

Product Name NESSOL D40

Synonyms 135157, 137311

Product Code(s) 10525

REACH registration number 01-2119463258-33-0003
EC No (EU Index No) 919-857-5

Pure substance/mixture Substance

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

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

Recommended use

Manufacture of substance
Distribution of substance
Formulation & (re)packing of substances and mixtures
Uses in coatings
Use in cleaning agents
Use in oil and gas field drilling and production operations
Lubricant
Metal working fluids/rolling oils
Use as binders and release agents
Use as a fuel
Functional fluids
Road and construction applications
Use in laboratories
Explosives manufacture & use
Water treatment chemical
Mining chemicals
Polymer processing

Uses advised against Supported uses are listed above. Other uses are not recommended.

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

Emergency Telephone :

Emergency Telephone - §45 - (EC)1272/2008	
Europe	**112**
Denmark	Giftlinjen: +45 8212 1212
Estonia	Poison information telephone number: 16662, calling from abroad: (+372) 7943 794
Finland	+358 800 147 111, +358 9 471 977, Poison Information Centre
France	France: Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59.
Germany	+49 32 211121704, Chemwatch Emergency Response Phone Number
Latvia	Valsts toksikoloģijas centrs: (+371) 6704 2473
Lithuania	Neatidėliotina informacija apsinuodijus: +370 5 236 20 52.
Netherlands	NVIC (088 755 8000), Only for the purpose of informing medical personnel in case of acute intoxications.
Norway	Poison Information Centre +47 22 59 13 00.
Poland	+48 22 208 6439, Chemwatch Emergency Response Telephone Number
Spain	+34 91 562 04 20 (24h/7)
Sweden	När det är akut: 112, begär giftinformation. I mindre akuta fall 010-456 6700, Giftinformationscentralens direktnummer

SECTION 2: Hazards identification

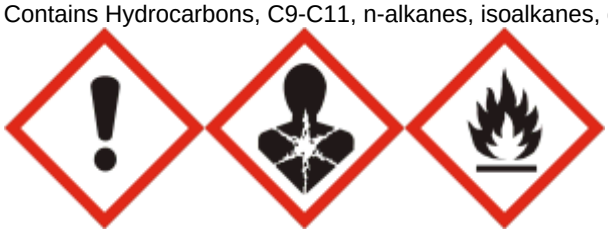
2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flammable liquids	Category 3 - (H226)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Aspiration hazard	Category 1 - (H304)

2.2. Label elements

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



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
EUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary Statements - EU (§28, 1272/2008)
P102 - Keep out of reach of children
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 or doctor
P331 - Do NOT induce vomiting
P501 - Dispose of contents as hazardous waste in accordance with local/regional/national/international regulations

2.3. Other hazards

Vapours may irritate throat and respiratory system. Evaporates slowly. Risk of soil and ground water contamination.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

This product does not contain substances considered to have endocrine disrupting properties at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics -	100	01-2119463258-33	919-857-5	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) STOT SE 3 (H336)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Additional information
Cumene <0.01%.

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 to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If symptoms persist, call a doctor. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.

Ingestion ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person. Get immediate medical attention. Delayed pulmonary edema may occur.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required.

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

Symptoms 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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO2, alcohol-resistant foam or water spray.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Flammable liquid and vapour. Containers may explode when heated.

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

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Use personal protection equipment. 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.

Wear positive pressure self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Use personal protective equipment as required.

For emergency responders Prevent unauthorized access. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Keep out of drains, sewers, ditches and waterways. Risk of soil and ground water contamination.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods for cleaning up Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Immediately start clean-up of the liquid and contaminated soil. Large spills should be collected mechanically (remove by pumping) for disposal. Pay attention to the fire and health hazards caused by the product.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See Section 7 for more information. See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. This material is a static accumulator. Take precautionary measures against static discharges. Avoid breathing vapours or mists. Use only outdoors or in a well-ventilated area. Try to avoid product volatilization during handling and transferring.

Avoid contact with eyes and skin. Use personal protection equipment. Use with local exhaust ventilation. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

General hygiene considerations Wash hands before breaks and after work. When using do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Flammable liquid storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Store away from other materials. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

7.3. Specific end use(s)

Risk Management Methods (RMM) Not applicable.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits Solvent naphtha, group 1: 500 mg/m³ (8h), HTP 2020/FIN. The individual limit values can be applied for the hydrocarbons.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics -	-	208 mg/kg/day [4] [6]	871 mg/m³ [4] [6]

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics -	125 mg/kg/day [4] [6]	125 mg/kg/day [4] [6]	185 mg/m³ [4] [6]

Predicted No Effect Concentration (PNEC)

8.2. Exposure controls

Engineering controls Provide adequate ventilation. Use personal protective equipment and/or local ventilation when needed. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear protective gloves. It is recommended that gloves are made of the following material:. Nitrile rubber. Wear suitable gloves tested to EN 374. Change protective gloves regularly. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

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

Respiratory protection Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge:. Gas filter. A2. Filter must be changed often enough. At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus).

General hygiene considerations Wash hands before breaks and after work. When using do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Mobile liquid
Colour	clear
Odour	Hydrocarbons. Mild.
Odour threshold	-

Property	**Values**	**Remarks • Method**
Melting point / freezing point	< -15 °C	
Initial boiling point and boiling range	150 - 200 °C	EN ISO 3405
Flammability	-	
Flammability Limit in Air		
Upper flammability or explosive limits	7 % (Estimated value)	
Lower flammability or explosive limits	0,6 % (Estimated value)	

Flash point	>= 38 °C	DIN 51755
Autoignition temperature	~ 250 °C	Estimated value
Decomposition temperature	-	
pH	No data available	
pH (as aqueous solution)	No data available	
Kinematic viscosity	< 2 mm2/s @ 40°C	EN ISO 3104
Dynamic viscosity	< 50 mPa s @ > -30°C	
Water solubility	The product has poor water-solubility	
Solubility(ies)		
Partition coefficient	log Kow: 2-7	
Vapour pressure	~ 0,3 kPa @ 20°C, ~ 2,5 kPa @ 50°C	
Relative density	0,74 - 0,85 @ 15°C	
Bulk density	-	
Liquid Density	-	
Relative vapour density	> 3 (Air = 1.0)	
Particle characteristics		
Particle Size	-	
Particle Size Distribution	-	

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Explosive properties	Not considered to be explosive
Oxidising properties	Does not meet the criteria for classification as oxidising

9.2.2. Other safety characteristics
No information available

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 under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

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

Incompatible materials Oxidising agent.

10.6. Hazardous decomposition products

Hazardous decomposition products None known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Acute toxicity Based on available data, the classification criteria are not met

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	> 5000 mg/kg, Rat (OECD 401, 423)	> 2000 mg/kg, Rabbit (OECD 402)	> 4,95 mg/l, Rat (4h) Air (OECD 403)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met. Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

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

STOT - repeated exposure Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain substances considered to have endocrine disrupting properties at levels of 0.1% or higher.

11.2.2. Other information

Other adverse effects None known.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Based on available data, the classification criteria are not met.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	OECD 201, EL50, 72 hours: > 1000 mg/l, Algae NOELR, 72 hours: 3 - 100 mg/l, Algae	OECD 203, LL_{50}, 96 hours: > 1000 mg/l, LL0, 96 hours: 100 mg/l QSAR, NOELR, 28 days: 0,13 mg/l	-	OECD 202, EL50, 48 hours: > 1000 mg/l, EL0, 48 hours: 1000 mg/l NOELR, QSAR, 21 days: 0,23 mg/l

12.2. Persistence and degradability

Persistence and degradability The product contains volatile substances which may spread in the atmosphere. Can be photodegraded in the atmosphere.

No significant reaction in water.

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

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)			Rapidly biodegradable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.
log Kow: 2-7.

12.4. Mobility in soil

Mobility in soil 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

PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain substances considered to have endocrine disrupting properties at levels of 0.1% or higher.

12.7. Other adverse effects
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. When handling waste, the safety precautions applying to handling of the product should be considered.
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	3295
14.2 UN proper shipping name	Hydrocarbons, liquid, n.o.s.
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	No
14.6 Special precautions for user	-

IMDG

14.1 UN number or ID number	3295
14.2 UN proper shipping name	Hydrocarbons, liquid, n.o.s.
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazard	No
14.6 Special precautions for user	-
14.7 Maritime transport in bulk according to IMO instruments	MARPOL Annex I Cargo

RID

14.1 UN number or ID number	3295
14.2 UN proper shipping name	Hydrocarbons, liquid, n.o.s.
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazard	No
14.6 Special precautions for user	-
Classification code	30

ADR

14.1 UN number or ID number	3295
14.2 UN proper shipping name	Hydrocarbons, liquid, n.o.s.
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazard	No
14.6 Special precautions for user	
Classification code	30
Tunnel restriction code	(D/E)

-

SECTION 15: Regulatory information

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

National regulations

UK REACH Registration number: UK-01-2791046891-0-0008.
OR UK: Penman Consulting Limited 42, Aspect House, Waylands Avenue, Grove Business Park, Wantage, Oxon, OX12 9FF, United Kingdom; Telephone: 01367 718474; Email: pcltd42@penmanconsulting.com.
Location of manufacture: Neste Porvoo Refinery, Finland.

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

P5a - FLAMMABLE LIQUIDS
P5b - FLAMMABLE LIQUIDS
P5c - FLAMMABLE LIQUIDS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Other Regulations

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH).
Classification according to Regulation (EC) No. 1272/2008 [CLP].

International Inventories

Mexico - INSQ - Complies

TSCA	Complies
DSL/NDSL	Complies
IECSC	Complies
KECI	Complies
PICCS	Complies
AIIC	Complies
NZIoC	Complies

15.2. Chemical safety assessment

Chemical Safety Report

A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H336 - May cause drowsiness or dizziness

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	On basis of test data
Ozone	Calculation method
Flammable liquids	On basis of test data

Supercedes date 19/09/2024

Revision date 24/03/2025

Reason for revision Updated, sections: 1, 3.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Exposure scenario
Distribution of Substance - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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

No exposure assessment presented for the environment.

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

Distribution of Substance - Industrial

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.
.
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.

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

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

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

Environment

Environmental release category	ERC2 Formulation into mixture
SPERC	ESVOC SPERC 2.2.v2

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 PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tabletting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.

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

Product characteristics

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

Amounts used

Daily amount per site: <= 13.46 tonnes
Annual site tonnage: <= 4040 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

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

	Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	1%
Emission factor - water	0.0005 %
Emission factor - soil	0.01%

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 exposure up to 8hours

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.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

	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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v2

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 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. PROC14 Tabletting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.

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

Amounts used

Daily amount per site: <= 18.66 tonnes
Annual site tonnage: <= 5600 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 300 days/year

Uses in Coatings - Industrial

Other given operational conditions affecting environmental exposure

Emission factor - air	9.8%
Emission factor - water	0.002%
Emission factor - soil	5%

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC7 Industrial spraying
5 - 10
air changes per hour
Wear suitable gloves tested to EN374.

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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v2

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.

Amounts used

Daily amount per site: <=0.0063 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Uses in Coatings - Professional

Emission factor - air	98%
Emission factor - water	1%
Emission factor - soil	1%

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

PROC10 Roller application or brushing
3-5
air changes per hour

PROC11 Non industrial spraying
Duration
4
h/day
5-10
air changes per hour
Wear suitable gloves tested to EN374.

PROC19 Manual activities involving hand contact
3-5
air changes per hour
Wear suitable gloves tested to EN374.

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 - Consumer

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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

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.v2

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

Amounts used

Daily amount per site: <=1.2 kg
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	98.5%
Emission factor - water	1%
Emission factor - soil	0.5%

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

Control of Non-industrial exposure

Uses in Coatings - Consumer

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 : 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)

Product characteristics

Physical state

Liquid

Concentration details

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

Amounts used

PC1_1 Glues, hobby use
For each use event, covers use amounts up to 9 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 80.05 g.
PC1_4 Sealants
For each use event, covers use amounts up to 75 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 0.017 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

Potentially exposed body parts	PC1_1 Glues, hobby use , PC1_3 Glue from spray , PC1_4 Sealants : Fingertips Inhalation PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) : Both hands. Inhalation PC4_1 Washing car window : Inhalation PC4_2 Pouring into radiator : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC4_3 Lock de-icer : Palm of one hand. Inhalation PC8 Biocidal products : Inhalation

Other given operational conditions affecting Non-industrial exposure

Setting	Indoor. Unless otherwise stated. PC4_3 Lock de-icer : Covers use in a one car garage (34 m³) under typical ventilation. PC4_2 Pouring into radiator , PC4_1 Washing car window : Outdoor.
Temperature	Assumes activities are at ambient temperature (unless stated differently).
Room size	PC4_3 Lock de-icer : Covers use in a one car garage (34 m³) under typical ventilation. PC4_2 Pouring into radiator , PC4_1 Washing car window : Outdoor.

Other given operational conditions affecting Non-industrial exposure

Uses in Coatings - Consumer

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

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

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 33 %.

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.
PC9b_3 Modelling clay
For each use event, covers use amounts up to 37 500 g.
PC9c Finger paints.
No specific recommendations.

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 : Inhalation Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands.

PC9a_3 Aerosol spray can. : Inhalation

PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). , PC9b_2 Plasters and floor equalisers : Both hands. Inhalation

PC9b_1 Fillers and putty : Inhalation Fingertips

PC9b_3 Modelling clay : Both hands. For each use event, assumes swallowed amount of (cm3): 1

PC9c Finger paints. : Both hands. For each use event, assumes swallowed amount of (cm3): 1.35

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

Indoor.

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.

Uses in Coatings - Consumer

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

Control of Non-industrial exposure

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

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 %.

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

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 8 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.

Uses in Coatings - Consumer

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 , PC23 Leather treatment products : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC15_3 Aerosol spray can : Inhalation PC15_4 Removers (paint-, glue-, wall paper-, sealant remover) : Both hands. Inhalation PC18 Ink and toners. : Fingertips Inhalation

Other given operational conditions affecting Non-industrial exposure

Setting	Indoor. 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 m^3) 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
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_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.

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 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 26 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.
(frequent use over a year)

Human factors not influenced by risk management

Potentially exposed body parts	PC24_1 Liquids : Inhalation Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. PC24_2 Pastes : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. PC24_3 Sprays : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC31 Polishes and wax blends. : Both hands. Inhalation PC34 Textile dyes and impregnating products : Both hands.

Other given operational conditions affecting Non-industrial exposure

Setting	Indoor. 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.

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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v3

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 PROC10 Roller application or brushing PROC13 Treatment of articles by dipping and pouring.

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

Amounts used

Daily amount per site: <=5 tonnes
Annual amount per site: <=100 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	29.4%
Emission factor - water	1E-5%

Use in Cleaning Agents - Industrial

Emission factor - soil	Not applicable - no direct release to soil.

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC7 Industrial spraying
≤ 5-10
air changes per hour
Wear suitable gloves tested to EN374.

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 Cleaning Agents - Professional

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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).

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 8.4a.v3

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.

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

Amounts used

Daily amount per site: <= 2.7E-4 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	4%
Emission factor - water	0.0004%
Emission factor - soil	2E-5%

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

Use in Cleaning Agents - Professional

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.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

PROC10 Roller application or brushing
3-5
air changes per hour

PROC11 Non industrial spraying
Duration
<=4
h/day
5-10
air changes per hour
Wear suitable gloves tested to EN374.

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 Cleaning Agents - Consumer

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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

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.v2

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

Amounts used

Daily amount per site: <=7.2E-5 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	95%
Emission factor - water	2.5%
Emission factor - soil	2.5%

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_2 Air care, continuous action (solid and liquid)

Product characteristics

Physical state	Liquid

Use in Cleaning Agents - Consumer

Concentration details	PC3_1 Air care, instant action (aerosol sprays) : Covers concentrations up to 50 %. PC3_2 Air care, continuous action (solid and liquid) : Covers concentrations up to 10 %.

Amounts used

PC3_1 Air care, instant action (aerosol sprays)
For each use event, covers use amounts up to 0.1 g.
PC3_2 Air care, continuous action (solid and liquid)
For each use event, covers use amounts up to 0.48 g.

Frequency and duration of use

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_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.

Human factors not influenced by risk management

Potentially exposed body parts	PC3_1 Air care, instant action (aerosol sprays) : Inhalation PC3_2 Air care, continuous action (solid and liquid) : Fingertips Inhalation

Other given operational conditions affecting Non-industrial exposure

Setting	Indoor.
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 : 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)

Product characteristics

Physical state	Liquid
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 %.

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 0.017 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 2.2 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

Potentially exposed body parts: PC4_1 Washing car window , 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) : Inhalation PC4_2 Pouring into radiator : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC4_3 Lock de-icer : Palm of one hand. Inhalation :

Other given operational conditions affecting Non-industrial exposure

Setting: Indoor. Unless otherwise stated.

PC4 Anti-freeze and de-icing products. , PC4_2 Pouring into radiator , PC4_3 Lock de-icer : Covers use in a one car garage (34 m³) under typical ventilation.

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)

Use in Cleaning Agents - Consumer

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

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 33 %.

Amounts used

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, covers use amounts up to 13800 g.

Frequency and duration of use

Use in Cleaning Agents - 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 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 : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC9a_3 Aerosol spray can : Inhalation PC9a_4 Removers (paint-, glue-, wallpaper-, sealant-remover). : Both hands. Inhalation PC9b_1 Fillers and putty : Fingertips Inhalation PC9b_2 Plasters and floor equalisers : Both hands. Inhalation PC9b_3 Modelling clay , PC9c Finger paints. : Both hands.

PC9b_3 Modelling clay For each use event, assumes swallowed amount of (cm3): 1. PC9c Finger paints. For each use event, assumes swallowed amount of (cm3): 1,35.

Other given operational conditions affecting Non-industrial exposure

Setting

Indoor.

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 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

Use in Cleaning Agents - Consumer

Physical state Liquid

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_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.

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 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 365 day(s)/year.

Human factors not influenced by risk management

Use in Cleaning Agents - Consumer

Potentially exposed body parts	PC24_1 Liquids : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC24_2 Pastes : Both hands. PC24_3 Sprays : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC35_1 Laundry and dish washing products PC35_2 Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, carpet cleaners, metal cleaners) , : Both hands. Inhalation PC35_3 Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC38 Welding and soldering products, flux products : Inhalation

Other given operational conditions affecting Non-industrial exposure

Setting	Indoor. 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.

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
Lubricants - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v2

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

Environmental release category	ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Amounts used

Daily amount per site: <= 0.11 tonnes
Annual amount per site: <= 2.2 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

	Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	0.15%
Emission factor - water	0.0001%
Emission factor - soil	0.1%

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

Control of environmental exposure

Environmental release category	ERC7 Use of functional fluid at industrial site

Amounts used

	Daily amount per site: <= 0.11 tonnes Annual site tonnage: <= 2.2 tonnes Fraction of EU tonnage used in region: 10%

Frequency and duration of use

	Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	0.15%
Emission factor - water	0.0001%
Emission factor - soil	Not applicable - no direct release to soil.

Environmental factors not influenced by risk management measures

Dilution	Receiving surface water flow: >= 18400 m³/day

Risk management measures

STP type	Aerobic biological treatment
STP details	Assumed domestic sewage treatment plant flow (m³/day): >= 2000

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC7 Industrial spraying
5-10
air changes per hour
Wear suitable gloves tested to EN374.

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 - Professional

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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) ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor)
SPERC	ESVOC SPERC 8.6c.v2

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)

Amounts used

Daily amount per site: <= 3.01E6 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	15%
Emission factor - water	5%
Emission factor - soil	5%

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC11 Non industrial spraying
Covers daily exposure up to 4hours
5-10
air changes per hour
Wear suitable gloves tested to EN374.

PROC17 Lubrication at high energy conditions in metal working operations
PROC18 General greasing/lubrication at high kinetic energy conditions
5-10
air changes per hour

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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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) ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor)
SPERC	ESVOC SPERC 8.6e.v2

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

Control of environmental exposure (Non-industrial)

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)

Amounts used

Daily amount per site: <=2.7E-6 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	15%
Emission factor - water	5%
Emission factor - soil	5%

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

Control of environmental exposure (Non-industrial)

Environmental release category	ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor)

Lubricants - Consumer

Amounts used

Daily amount for wide dispersive uses: <=2.7E-6 tonnes
Fraction of EU tonnage used in region: 10%

Other given operational conditions affecting environmental exposure

Emission factor - air	15%
Emission factor - water	5%
Emission factor - soil	5%

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
Concentration details	Covers concentrations up to 30 %.

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.

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	PC1_1 Glues, hobby use , PC1_3 Glue from spray , PC1_4 Sealants : Fingertips Inhalation . PC1_2 Glues DIY-use (carpet glue, tile glue, wood parquet glue) : Both hands. Inhalation

Other given operational conditions affecting Non-industrial exposure

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

Lubricants - Consumer

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

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

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 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_3 Sprays : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands. Inhalation PC24_2 Pastes : Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands.

Other given operational conditions affecting Non-industrial exposure

Setting Indoor. 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 m^3) 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

Lubricants - Consumer

Physical state	Liquid
Concentration details	Covers concentrations up to 50 %.

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

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 26 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	Both hands. Inhalation

Other given operational conditions affecting Non-industrial exposure

Setting	Indoor.
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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v3

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 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

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

Amounts used

Daily amount per site: <= 11.85 tonnes
Annual site tonnage: <=237 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Use in Metal Working Fluids/Rolling Oils - Industrial

Emission factor - air	1.5%
Emission factor - water	0.0001%
Emission factor - soil	Not applicable - no direct release to soil.

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC7 Industrial spraying
5-10
air changes per hour
Wear suitable gloves tested to EN374.

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%
EU 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.

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.v2

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)

Amounts used

Daily amount per site: <= 1.6E-4 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	15%
Emission factor - water	5%

Use in Metal Working Fluids/Rolling Oils - Professional

Emission factor - soil	5%

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

PROC10 Roller application or brushing
3-5
air changes per hour

PROC11 Non industrial spraying
Duration
<=4
h/day
5-10
air changes per hour
Wear suitable gloves tested to EN374.

PROC17 Lubrication at high energy conditions in metal working operations
5-10
air changes per hour

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 Release Agents or Binders - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU 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.

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.v3

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. PROC7 Industrial spraying PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC13 Treatment of articles by dipping and pouring. PROC14 Tabletting, compression, extrusion, pelletisation, granulation

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

Amounts used

Daily amount per site: <= 11.85 tonnes
Annual amount per site: <= 237 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	19.6 %
Emission factor - water	0.005 %
Emission factor - soil	Not applicable - no direct release to soil.

Use as Release Agents or Binders - Industrial

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	<= 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC7 Industrial spraying
5-10
air changes per hour
Wear suitable gloves tested to EN374.

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 Release Agents or Binders - Professional

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v2

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 Tabletting, compression, extrusion, pelletisation, granulation

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

Amounts used

Daily amount per site: <= 1.4E-4
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	90%
Emission factor - water	2.5%
Emission factor - soil	2.5%

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

Use as Release Agents or Binders - Professional

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

PROC10 Roller application or brushing
3-5
air changes per hour

PROC11 Non industrial spraying
Duration
4
h/day
5-10
air changes per hour
Wear suitable gloves tested to EN374.

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 - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC7 Use of functional fluid at industrial site
SPERC	ESVOC SPERC 7.12a.v3

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.

Amounts used

Daily amount per site: <= 0.1 tonnes
Annual amount per site: <= 2 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	0.025%
Emission factor - water	0.001%
Emission factor - soil	Not applicable - no direct release to soil.

Use as a Fuel - Industrial

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor)
SPERC	ESVOC SPERC 9.12b.v3

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)

Amounts used

Daily amount per site: <= 2.7E-6 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	0.5%
Emission factor - water	0.0001%
Emission factor - soil	0.025%

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 as a Fuel - Professional

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor)
SPERC	ESVOC SPERC 9.12c.v3

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

Amounts used

Daily amount per site: <=2.7E-6 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	0.01%
Emission factor - water	2E-5%
Emission factor - soil	0.005%

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

Product characteristics

Physical state	Liquid
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 0.033 hours per event.

PC13_3 Liquid: garden equipment - use
Covers exposure up to 2.00 hours per event.
(frequent use over a year)

PC13_4 Liquid: Garden equipment - Refuelling
Covers exposure up to 0.03 hours per event.
Covers use up to
26
times per year

PC13_5 Liquid: lamp oil
Covers exposure up to 0.013 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

Assumes that potential dermal contact is limited to inside hands/one hand/palm of hands.
Unless otherwise stated.

PC13_2 Liquid: scooter refuelling , PC13_3 Liquid: garden equipment - use : Dermal exposure is considered to be not relevant.

PC13_6 Liquid: home space heater fuel , PC13_5 Liquid: lamp oil : Palm of one hand.

Other given operational conditions affecting Non-industrial exposure

Setting

Covers outdoor use. Unless otherwise stated.

PC13_6 Liquid: home space heater fuel , PC13_5 Liquid: lamp oil : Indoor use.

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)

Use as a Fuel - 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
Use as Functional Fluids - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC7 Use of functional fluid at industrial site
SPERC	ESVOC SPERC 7.13a.v2

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)

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

Amounts used

Daily amount per site: <=0.5 tonnes
Annual amount per site: <= 10 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	0.5%
Emission factor - water	0.0001%
Emission factor - soil	0.1%

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

Use as Functional Fluids - Industrial

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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)

Amounts used

Daily amount per site: <= 1.4E-5 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	5%
Emission factor - water	5%
Emission factor - soil	5%

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

Product characteristics

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

Use as Functional Fluids - Professional

Concentration details	Covers percentage substance in the product up to 100% (unless stated differently).
Frequency and duration of use	
	Covers daily exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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 - Consumer

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC9a Widespread use of functional fluid (indoor) ERC9b Widespread use of functional fluid (outdoor)
SPERC	ESVOC SPERC 9.13c.v2

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

Amounts used

Daily amount per site: <= 1.4E-5 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	5%
Emission factor - water	5%
Emission factor - soil	5%

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
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

Use as Functional Fluids - Consumer

Potentially exposed body parts	Hand Palm of one hand. Palm of both hands.

Other given operational conditions affecting Non-industrial exposure

Setting	Covers use in a one car garage (34 m³) under typical ventilation.
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 Road and Construction Applications - Professional

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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	SPERC 8.15.v2

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

Environmental release category	ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Amounts used

Daily amount per site: <=5.5E-6 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	95%
Emission factor - water	1%
Emission factor - soil	4%

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

Control of environmental exposure

Environmental release category	ERC8f Widespread use leading to inclusion into/onto article (outdoor)

Use in Road and Construction Applications - Professional

Amounts used

Daily amount per site: <=5.5E-6 tonnes
Annual amount used in the EU: 10%

Other given operational conditions affecting environmental exposure

Emission factor - air	94%
Emission factor - water	1%
Emission factor - soil	4%

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

PROC10 Roller application or brushing
3-5
air changes per hour

PROC11 Non industrial spraying
Duration
<=4
h/day
5-10
air changes per hour
Wear suitable gloves tested to EN374.

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 Laboratories - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Worker

Process category	PROC10 Roller application or brushing PROC15 Use as laboratory reagent.

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

Amounts used

Daily amount per site: <= 0.0005 tonnes
Annual amount per site: <= 0.01 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	2.5%
Emission factor - water	2%
Emission factor - soil	0.01%

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.

Use in Laboratories - Industrial

Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour
Risk management measures	
	No specific risk management measure identified beyond those operational conditions stated.

3. Exposure estimation (Environment 1)

Assessment method	Used Petrorisk model.

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 Laboratories - Professional

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
SPERC	ESVOC SPERC 8.17.v2

Worker

Process category	PROC10 Roller application or brushing PROC15 Use as laboratory reagent.

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

Amounts used

Daily amount per site: <=1.4E-8 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	50%
Emission factor - water	50%
Emission factor - soil	Not applicable - no direct release to soil.

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

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

Use in Laboratories - Professional

Risk management measures

PROC10 Roller application or brushing
3-5
air changes per hour

PROC15 Use as laboratory reagent.
≤ 3
air changes per hour

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 Polymer Processing - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v2

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 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 PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC13 Treatment of articles by dipping and pouring. PROC14 Tabletting, compression, extrusion, pelletisation, granulation

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

Amounts used

Daily amount per site: <=14.5 tonnes
Annual site tonnage: <=1450 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 100 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	5%

Use in Polymer Processing - Industrial

Emission factor - water	0%
Emission factor - soil	0.001%

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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 Polymer Processing - Professional

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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 ESVOC SPERC 8.21b.v2

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 Tabletting, compression, extrusion, pelletisation, granulation

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

Amounts used

Daily amount per site: <= 0.0018 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	98%
Emission factor - water	1%
Emission factor - soil	1%

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 Polymer Processing - Professional

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
SPERC	ESVOC SPERC 3.22a.v3

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)

Amounts used

Daily amount per site: <= 0.1 tonnes
Annual site tonnage: <= 30 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	0.03%
Emission factor - water	1.23%
Emission factor - soil	Not applicable - no direct release to soil.

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

Product characteristics

Use in Water Treatment Chemicals - Industrial

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).
Covers daily exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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
Manufacture of Substance - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
Es reference	ES01

1. Title of exposure scenario

Main title	Manufacture of Substance - Industrial
Process scope	Manufacture of the substance or use as a process chemical or extraction agent within closed or contained systems. Includes incidental exposures during recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).

Environment

Environmental release category	ERC1 Manufacture of the substance
SPERC	ESVOC SPERC 1.1.v2

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 PROC15 Use as laboratory reagent.

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

Amounts used

Daily amount per site: <= 57.66 tonnes
Annual amount per site: <= 1.73E4 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	0.1%
Emission factor - water	0.001%
Emission factor - soil	0.01%

Manufacture of Substance - Industrial

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 exposure up to 8hours

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
SPERC	ESVOC SPERC 8.22b.v2

Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of 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)

Amounts used

Daily amount per site: <= 1.8E-4 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	1%
Emission factor - water	99%
Emission factor - soil	Not applicable - no direct release to soil.

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 in Water Treatment Chemicals - Professional

Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

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 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
Distribution of Substance - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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

No exposure assessment presented for the environment.

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

Distribution of Substance - Industrial

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.
.
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.

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

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

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

Environment

Environmental release category	ERC2 Formulation into mixture
SPERC	ESVOC SPERC 2.2.v2

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 PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tabletting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.

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

Product characteristics

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

Amounts used

Daily amount per site: <= 13.46 tonnes
Annual site tonnage: <= 4040 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

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

	Emission days: 300 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	1%
Emission factor - water	0.0005 %
Emission factor - soil	0.01%

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 exposure up to 8hours

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.
Ventilation rate	≤ 3 air changes per hour

Risk management measures

	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 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%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

Environment

Environmental release category	ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
SPERC	ESVOC SPERC 8.22c.v2

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

Amounts used

Daily amount per site: <= 1.4E-5 tonnes
Fraction of EU tonnage used in region: 0.1

Other given operational conditions affecting environmental exposure

Emission factor - air	1%
Emission factor - water	99%
Emission factor - soil	Not applicable - no direct release to soil.

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
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

Covers use up to 1 time(s)/day.
(frequent use over a year)

Human factors not influenced by risk management

Potentially exposed body parts	Inhalation

Other given operational conditions affecting Non-industrial exposure

Use in Water Treatment Chemicals - Consumer

Setting Indoor.

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
Uses in Coatings - Industrial

Identification

Product name	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, aromatics < 2%
EU REACH registration number	01-2119463258-33-0003
Version number	2021
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.

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.v2

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 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. PROC14 Tabletting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.

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

Amounts used

Daily amount per site: <= 18.66 tonnes
Annual site tonnage: <= 5600 tonnes
Fraction of EU tonnage used in region: 0.1

Frequency and duration of use

Emission days: 300 days/year

Uses in Coatings - Industrial

Other given operational conditions affecting environmental exposure

Emission factor - air	9.8%
Emission factor - water	0.002%
Emission factor - soil	5%

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	Indoor.
Temperature	Assumes use at not more than 20°C above ambient temperature, unless stated differently.
Ventilation rate	≤ 3 air changes per hour Unless otherwise stated.

Risk management measures

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

PROC7 Industrial spraying
5 - 10
air changes per hour
Wear suitable gloves tested to EN374.

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.