Wickes White Spirit

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by UK REACH Regulations SI 2019/758
Issue date: 15/03/2023 Version: 1.0

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

1.1. Product identifier

Product form	:	Mixture
Product name	:	Wickes White Spirit
UFI	:	CH10-F03N-D00A-YVN7
Product group	:	End product
SKU	:	600340; 600341

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

1.2.1. Relevant identified uses

Use of the substance/mixture : General degreasing solvent. Paint brush cleaner. Paint thinner

1.2.2. Uses advised against

Restrictions on use : Cosmetics, personal care products

1.3. Details of the supplier of the safety data sheet

GB Supplier
Bartoline Limited
Barmston Close
HU17 0LW Beverley
United Kingdom
T 01482 678710 - F 01482 872606
infor@bartoline.co.uk - www.bartoline.co.uk

1.4. Emergency telephone number

Emergency number : +44(0)1482 678710
8.30am - 4.45pm Monday to Friday
NHS 111 - General Public (24 Hour service)

Also, in the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS07 GHS08

Signal word (CLP) : Danger

Contains	:	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC No.: 919-857-5), Hydrocarbons, C9, aromatics (EC No.: 918-668-5).
Hazard statements (CLP)	:	H226 - Flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H336 - May cause drowsiness or dizziness. H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (CLP)	:	P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P280 – Wear protective clothing, eye protection, face protection, protective gloves. P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do not induce vomiting. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	:	EUH066 - Repeated exposure may cause skin dryness or cracking.
Extra Labelling Phrases	:	Contains: 30% and more aliphatic hydrocarbons, 5 % or over but less than 15 % aromatic hydrocarbons.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII
The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.
This product is a poor conductor of electricity and can become electrostatically charged.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC-No.: 919-857-5 EU REACH Registration No.:01-2119463258-33-XXXX	≥ 90	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066
Hydrocarbons, C9, aromatics	CAS-No.: 128601-23-0 EC-No.: 918-668-5 EU REACH Registration-No.:01-2119455851-35-XXXX	< 15	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	:	Remove victim to uncontaminated area. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
First-aid measures after skin contact	:	Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
First-aid measures after eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
First-aid measures after ingestion	:	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
First-aid measures of first aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

Symptoms/effects	:	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Symptoms/effects after inhalation	:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness.
Symptoms/effects after skin contact	:	Adverse symptoms may include the following: irritation dryness cracking
Symptoms/effects after eye contact	:	Adverse symptoms may include the following: Eye irritation. Redness.
Symptoms/effects after ingestion	:	Ingestion may cause nausea and vomiting. Abdominal pain, nausea. Swallowing a small quantity of this material will result in serious health hazard. Liquid with low viscosity, may result in aspiration into the lungs. Product entering lungs lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).

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

If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours). Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2), sand.
Unsuitable extinguishing media	:	Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Explosion hazard	:	In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous decomposition products in case of fire	:	Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. Hydrocarbons. Aldehydes. Soot. Gas may accumulate in confined areas. *i.e.* toxic gases can be released.

5.3. Advice for firefighters

Precautionary measures fire	:	Avoid breathing vapours from fire. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Firefighting instructions	:	Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool..
Protection during firefighting	:	Wear fire/flame resistant/retardant clothing. In confined space use self-contained breathing apparatus with a full face piece respirator operated in positive pressure mode. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incident.
Other information	:	Keep run-off water out of sewers and water sources. Containers close to fire should be removed or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment	:	Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection.
Emergency procedures	:	Keep unnecessary and unprotected personnel away from the spillage.Land spill. Eliminate all ignition sources. Stop leak if safe to do so. Do not touch or walk on the spilled product. Wash thoroughly after dealing with a spillage. Eliminate all ignition sources. Stop leak if safe to do so.No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation.

6.1.2. For emergency responders

Protective equipment	:	Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection.

6.2. Environmental precautions

Avoid release to the environment. Material insoluble in water. may spread in water systems. Do not discharge into drains or the environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

For containment	:	Eliminate sources of ignition. No open flames. No smoking.
Methods for cleaning up	:	Small Spill : Stop leak if safe to do so. Absorb excess liquid spillage on inorganic adsorbent material such as fine sand, brick dust etc. Place spent adsorbent in sealed packages and contact specialist waste disposal contractor. Cover the spilled liquid product with foam to slow down evaporation. Use type. Alcohol resistant foam. Large Spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information on personal protection refer to section 8: "Exposure controls/personal protection". For further information on Disposal Considerations refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not swallow. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid handling alongside strong oxidants. Avoid product spilling and keep away from drains.
Hygiene measures	:	Do not eat, drink or smoke when using this product. After contact with skin, wash immediately and thoroughly with water and soap. Take off immediately all contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and protective equipment before entering eating areas. Do not dry hands with rags that have been contaminated with product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Keep locked up and out of reach of children. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers
Incompatible products	:	Oxidizing agent,
Heat and ignition sources	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Storage area	:	Keep away from food, drink and animal feedingstuffs.
Packaging materials	:	Carbon steel. Glass. Mild steel. Stainless steel. high density polyethylene (HDPE). Polyethylene terephthalate (PET).

7.3. Specific end use(s)

See Section 1.2 for recommended end uses (General degreasing solvent. Paint brush cleaner. Paint thinner). When performing these recommended end uses, keep containers closed when not in use, keep containers upright, use only in well ventilated areas, ideally outdoors, open containers slowly in order to release any pressure build up that may occur, keep out of reach of children, apply "common sense" measures when using this product, when using transfer required amount to a suitable container such as glass, metal or HDPE.Avoid all contact with skin and eyes. See Annex to SDS for exposure scenarios

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	871 mg/m³
Long-term - systemic effects, dermal	77 mg/kg bodyweight/day
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	46 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	185 mg/m³
Long-term - systemic effects, dermal	46 mg/kg bodyweight/day
PNEC (additional information)	
Additional information	PNEC is not meaningful for petroleum substances

Hydrocarbons, C9, aromatics (128601-23-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	150 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	11 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	32 mg/m³
Long-term - systemic effects, dermal	11 mg/kg bodyweight/day

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

8.2.2. Personal protection equipment

Personal protective equipment:
Do not attempt to take action without suitable protective equipment. Appropriate engineering controls.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Use splash goggles when eye contact due to splashing is possible	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Wear gloves according to EN374 resistant to the solvent(s) in use.
Protective gloves. Nitrile-rubber protective gloves (Glove thickness > 0.55 mm, Brealk through time > 30 min). Polyvinyl Alcohol (PVA) (any thickness; Break through time > 480 min)

Other skin protection

Materials for protective clothing:
Use appropriate personal protection equipment (PPE). According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn. *E.g.* When there is a risk of ignition from static electricity, wear anti-static protective clothing; clothing should include anti-static overalls, boots and gloves

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Wear respiratory protection.

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Wear respiratory protection	Type A - High-boiling (>65 °C) organic compounds, Type P2	Vapour protection	EN 405

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels..

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Clear/Colourless
Appearance	:	Colourless liquid.
Odour	:	Hydrocarbon.
Odour threshold	:	Not available
Melting point/Freezing Point	:	Not available
Boiling point	:	140°C-210°C (ISO 3405)
Flammability	:	Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Non-flammable in the presence of the following materials or conditions: heat
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	43 °C (ISO 2719)
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not applicable.

Viscosity, kinematic	:	Kinematic (40°C): 0.98 mm^2/s (ISO 3104)
Solubility	:	Insoluble in water
Partition coefficient n-octanol/water (Log Kow)	:	Not applicable
Vapour pressure	:	> 0.0093 kPa
Vapour pressure at 50 °C	:	Not available
Density	:	0.77 – 0.799gcm^{-3} (ISO 12185)
Relative density	:	0.77 – 0.799 (ISO 12185)
Vapour density at 20 °C	:	Not available
Particle characteristis	:	Not applicable
Explosive properties	:	Not considered explosive based on chemical structure and oxygen balance considerations.
Oxidising properties	:	Not considered oxidising based on chemical structure considerations.
Evaporation Rate	:	Not available

9.2. Other information

VOC content	:	≤ 900 g/l
Volatility	:	Volatile

SECTION 10: Stability and reactivity

10.1. Reactivity

No specific test data related to reactivity available for this product or its ingredient (Nb. Is flammable liquid and vapour.)

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. Never pressurise packagings as they will not resist.

10.5. Incompatible materials

Strong Oxidizing agent.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	:	Based on available data, the classification criteria are not met
Acute toxicity (dermal)	:	Based on available data, the classification criteria are not met
Acute toxicity (inhalation)	:	Based on available data, the classification criteria are not met

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)	
LD50 oral (Read Across from Hydrocarbons, C10-C12, isoalkanes, <2% aromatics)	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation (gases) (Read Across from Hydrocarbons, C9-C11, isoalkanes, <2% aromatics)	> 5000 mg/m^3 air Animal: rat, Exposure: 8h, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LD50 dermal (Read Across from Hydrocarbons, C11-C14, isoalkanes, cyclics, < 2% aromatics)	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Hydrocarbons, C9, aromatics (128601-23-0)	
LD50 oral	> 3492 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal	> 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation (vapour)	> 6193 mg/m^3 air Animal: rat, Exposure: 4h, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity),

Skin corrosion/irritation : Based on available data, the classification criteria are not met
pH: Not applicable.

Serious eye damage/irritation : Based on available data, the classification criteria are not met
pH: Not applicable

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 drowsiness or dizziness.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)
Based on Read Across, Acute CNS effects seen in: ➔ NOAEC for in mice (Hydrocarbons C10-C11, isoalkanes, <2% aromatics): 1000 ppm (5800 mg/m^3). ➔ In a 13 week subchronic inhalation study, the neurotoxicity of light alkylate naphtha distillate (LAND-2; carbon range C5-C8) was examined in male and female rats and acute CNS effects were observed.

Hydrocarbons, C9, aromatics (128601-23-0)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

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

Aspiration hazard : May be fatal if swallowed and enters airways.

Bartoline White Spirit	
Viscosity, kinematic	≤ 20.5 mm²/s @ 40°C [ISO 3104]

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)	
Viscosity, kinematic	≤ 20.5 mm²/s @ 40°C [ISO 3104]

Hydrocarbons, C9, aromatics (128601-23-0)	
Viscosity, kinematic	≤ 20.5 mm²/s @ 40°C [ISO 3104]

11.2. Information on other hazards

11.2.1 Endocrine Disrupting Properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2 Other Information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Based on available data, the classification criteria are not met.

Hazardous to the aquatic environment, long–term (chronic) : Based on available data, the classification criteria are not met.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)	
LL50 96h - Fish	> 1000 mg/l Test organisms (species): Oncorhynchus mykiss, Guideline: OECD Guideline 203 (Fish, Acute Toxicity Test)
EL50 48h – Crustacea	> 1000 mg/l Test organisms (species): Daphnia magna, Guideline: OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
EC50 72h – Algae	> 1000 mg/l Test organisms (species): Raphidocelis subcapitata, Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)
NOELR 96 h – Algae	3 mg/l Test organisms (species): Raphidocelis subcapitata, Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)

Hydrocarbons, C9, aromatics (128601-23-0)	
LC50 96h - Fish	9.2 mg/l Test organisms (species): Oncorhynchus mykiss, Guideline: OECD Guideline 203 (Fish, Acute Toxicity Test)
EC50 48h - Crustacea	3.2 mg/l Test organisms (species): Daphnia magna, Guideline: OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
EC50 72h - Algae	2.9 mg/l Test organisms (species): Pseudokirchneriella subcapitata, Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)
NOELR 28d – Fish	1.23 mg/l Test organisms (species): Oncorhynchus mykiss, Guideline: QSAR
NOELR 21d – Crustacea	2.14 mg/l Test organisms (species): Daphnia magna, Guideline: QSAR

12.2. Persistence and degradability

Product is readily biodegradable

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)
80% biodegraded (O_2 Consumption) at 28 d, Guideline: OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

Hydrocarbons, C9, aromatics (128601-23-0)	
OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)	62.1% degradation (O_2 consumption) at 10d 78.1% degradation (O_2 consumption) at 28d Supports that substance is readily biodegradable and rapidly degradable
OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)	54 – 56% degradation (CO_2 Evolution) at 28 d Supports that substance is not readily biodegradable and not rapidly degradable
OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	21% degradation (O_2 consumption) at 28 d Supports that substance is not readily biodegradable and not rapidly degradable

12.3. Bioaccumulative potential

No additional information available on mixture

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (919-857-5)
Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance

Hydrocarbons, C9, aromatics (128601-23-0)
Partition Coefficient ≤ 4.5

12.4. Mobility in soil

Given its physical and chemical characteristics, the product generally shows low soil mobility The product evaporates readily. The product is insoluble and floats on water

12.5. Results of PBT and vPvB assessment

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

12.6. Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7. Other adverse effects

No other adverse effects are known as of yet for this mixture or any substances contained in this mixture.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

This product ***is*** classified as Hazardous Waste as it is supplied.

Waste generation should be avoided or minimised where possible. When handling waste, the safety precautions applying to handling of the product should be considered. Label the containers containing waste and remove from the area as soon as possible. Label the containers containing waste contaminated material and remove from the area as soon as possible.
Product disposal to sewer should be avoided, if possible, and only be carried out after treatment, and under relevant rules, e.g. Consent to Discharge. Where wastes undergo disposal, external recovery or treatment, it must comply with the requirements of environmental protection, waste disposal legislation and any local authority requirements. If wastes undergo incineration, they must be suitable for it at an approved facility.
Used packaging waste should be reused or recycled, if uncontaminated. Contaminated packaging should be cleaned on site, if appropriate facilities exist, including any relevant rules or permits, or offsite by a specialist provider. Contaminated packaging which cannot be safely cleaned must be treated in the same way as the product, and should only be disposed of as a last resort.

List of waste code is 20 01 13* - solvents. These codes have been assigned based on the actual composition of the product as supplied. Seek advice from a hazardous waste specialist for waste classification.

SECTION 14: Transport information

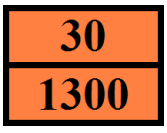
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1300	UN 1300	UN 1300	UN 1300	UN 1300
14.2. UN proper shipping name				
TURPENTINE SUBSTITUTE MIXTURE	TURPENTINE SUBSTITUTE MIXTURE	Turpentine substitute mixture	TURPENTINE SUBSTITUTE MIXTURE	TURPENTINE SUBSTITUTE MIXTURE

ADR	IMDG	IATA	ADN	RID
Transport document description				
UN 1300 TURPENTINE SUBSTITUTE MIXTURE, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1300 TURPENTINE SUBSTITUTE MIXTURE, 3, III, MARINE POLLUTANT	UN 1300 Turpentine substitute mixture, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1300 TURPENTINE SUBSTITUTE MIXTURE, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1300 TURPENTINE SUBSTITUTE MIXTURE, 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T2
Portable tank and bulk container special provisions (ADR)	:	TP1
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V12
Special provisions for carriage - Operation (ADR)	:	S2
Hazard identification number (Kemler No.)	:	30
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

Transport by sea

Special provisions (IMDG)	:	223
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T2
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-E
Stowage category (IMDG)	:	A
Properties and observations (IMDG)	:	Immiscible with water.

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y344
PCA limited quantity max net quantity (IATA)	:	10L
PCA packing instructions (IATA)	:	355
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	366
CAO max net quantity (IATA)	:	220L
Special provisions (IATA)	:	A3
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	F1
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T2
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Colis express (express parcels) (RID)	:	CE4
Hazard identification number (RID)	:	30

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. UK-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the GB PIC list ((EU) No 649/2012 as amended by the Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc) (EU Exit) Regulations 2019 and 2020 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (The Persistent Organic Pollutants Regulations 2007 As Amended by UK Regulations S.I 2018/1405, S.I 2019/1099, S.I 2019/1340, S.I 2020/1358 and S.I 2022/1293)

Ozone Depleting Substances Regulation

Contains no substance(s) listed on the Ozone Depletion list (The Ozone-Depleting Substances Regulations 2015 As Amended by UK Regulations S.I 2019/281, S.I 2019/583, S.I 2020/304, S.I. 2020/1616, S.I 2021/1397 and S.I 2023/336 on substances that deplete the ozone layer)

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012 (S.I 2012/1715)

VOC content : ≤ 900 g/l

Poisons and Explosive Precursors Regulations

Contains no substance(s) listed on the Poisons and Explosive Precursors Precursors list (The Poisons Act 1972 as amended by S.I 2015/968. The Control of Poisons and Explosives Precursors Regulations 2015 (S.I 2015/966) and The Control of Explosives Precursors and Poisons Regulations 2023 (S.I 2023/63) on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004 & 111/2005)

Contains no substance(s) listed on the Drug Precursors list ((EC) No 273/2004 and (EC) No 111/2005 as amended by the UK Regulations S.I 2019/742 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances).

Detergent Regulation ((EC) No 648/2004 as amended by UK Regulations S.I 2019/672, S.I 2019/671 and S.I 2020/1617.

Product is under the scope of this regulation

15.2. Chemical safety assessment

A chemical safety assessment was performed for the mixture as a whole.

SECTION 16: Other information

Indication of changes:
Due to change of classification database the revision numbering has been reset. You should therefore look at the revision date rather than the revision number to ensure you have the most up to date version.

Full text of H- and EUH-statements:	
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, respiratory tract irritation
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value

Abbreviations and acronyms:	
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.:	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Key literature references and sources for data

- ECHA (European Chemicals Agency). http://echa.europa.eu/, - REACH disseminated dossiers of substance included in Section 3
- Supplier’s Safety documents

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Flam. Liq. 3, H226	On Basis Of Test Data
STOT SE 3, H336	Calculation method
Asp. Tox. 1, H304	Calculation method & on basis of test data
Aquatic Chronic 3, H412	Calculation method

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Annex to SDS

Identification of the substance or mixture

Product definition : Mixture
Code : C3K0GSG4G
Product name : SPIRDANE HT LC

Section 1 - Title

Short title of the exposure scenario : Use in coatings - Professional

List of use descriptors :
Identified use name: Use in coatings - Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC15, PROC19
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d

Environmental contributing scenarios : **Product characteristics**

Health Contributing scenarios :
Product characteristics
Filling/preparation of equipment from drums or containers. Use in contained systems - PROC02
Preparation of material for application Use in contained batch processes - PROC03
Film formation - air drying Outdoor - PROC04
Film formation - air drying Indoor - PROC04
Preparation of material for application Indoor - PROC05
Preparation of material for application Outdoor - PROC05
Material transfers Non-dedicated facility - PROC08a
Material transfers Dedicated facility - PROC08b
Roller, spreader, flow application Indoor - PROC10
Roller, spreader, flow application Outdoor - PROC10
Manual Spraying Indoor - PROC11
Manual Spraying Outdoor - PROC11
Dipping, immersion and pouring Indoor - PROC13
Dipping, immersion and pouring Outdoor - PROC13
Laboratory activities - PROC15
Hand application - fingerpaints, pastels, adhesives Indoor - PROC19
Hand application - fingerpaints, pastels, adhesives Outdoor - PROC19
General exposures (closed systems) - PROC01
General exposures (closed systems) Use in contained batch processes - PROC02

Processes and activities covered by the exposure scenario : 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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: Product characteristics		
Product characteristics	:	Substance is complex UVCB. Predominantly hydrophobic
Amounts used	:	Maximum daily site tonnage : $2.3e^{+0}$ kg/day
Frequency and duration of use	:	Continuous release Emission days : 365 days per year
Environment factors not influenced by risk management	:	Local freshwater dilution factor : 10 Local marine water dilution factor : 100
Other conditions affecting environmental exposure	:	Release fraction to air from process (initial release prior to RMM) : 0.98 Release fraction to wastewater from process (initial release prior to RMM) : 0.01 Release fraction to soil from process (initial release prior to RMM) : 0.01
Technical conditions and measures at process level (source) to prevent release	:	Common practices vary across sites thus conservative process release estimates used.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	:	Risk from environmental exposure is driven by soil. No wastewater treatment required.
Risk management measures - Air	:	Treat air emission to provide a typical removal efficiency of 0%
Risk management measures - Water	:	Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of 0% If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of 0%
Organisational measures to prevent/limit release from site	:	Prevent discharge of undissolved substance to or recover from onsite wastewater. Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.
Conditions and measures related to sewage treatment plant	:	Estimated substance removal from wastewater via municipal sewage treatment : 93.7% Total efficiency of removal from wastewater after on-site and off-site (municipal treatment plant) RMMs : 93.7% Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal : $1.9e^{+3}$ kg/day Assumed domestic sewage treatment plant flow : 2 000 m³/day
Conditions and measures related to external treatment of waste for disposal	:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	:	External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2: Product characteristics		
Product characteristics	:	Substance is complex UVCB.
Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid, vapour pressure < 0.5 kPa at Standard Temperature and Pressure
Amounts used	:	No limit
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours (unless stated differently)
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Assumes a good basic standard of occupational hygiene has been implemented

Contributing scenario controlling worker exposure for 3: Filling/preparation of equipment from drums or containers. Use in contained systems

Process control/change measures : Handle substance within a closed system.

Contributing scenario controlling worker exposure for 4: Preparation of material for application Use in contained batch processes

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 5: Film formation - air drying Outdoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 6: Film formation - air drying Indoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 7: Preparation of material for application Indoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 8: Preparation of material for application Outdoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 9: Material transfers Non-dedicated facility

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 10: Material transfers Dedicated facility

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 11: Roller, spreader, flow application Indoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 12: Roller, spreader, flow application Outdoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 13: Manual Spraying Indoor

Process control/change measures : Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
or
Wear a respirator conforming to EN140 with type A filter or better.

Contributing scenario controlling worker exposure for 14: Manual Spraying Outdoor

Process control/change measures : Ensure operation is undertaken outdoors.
Avoid carrying out activities involving exposure for more than 4 hours per day.
or
Ensure operation is undertaken outdoors.
Wear a respirator conforming to EN140 with type A filter or better.

Contributing scenario controlling worker exposure for 15: Dipping, immersion and pouring Indoor

Process control/change measures : Avoid manual contact with wet work pieces.

Contributing scenario controlling worker exposure for 16: Dipping, immersion and pouring Outdoor

Process control/change measures : Avoid manual contact with wet work pieces.

Contributing scenario controlling worker exposure for 17: Laboratory activities	
Process control/change measures	: No other specific measures identified.
Contributing scenario controlling worker exposure for 18: Hand application - fingerpaints, pastels, adhesives Indoor	
Process control/change measures	: No other specific measures identified.
Contributing scenario controlling worker exposure for 19: Hand application - fingerpaints, pastels, adhesives Outdoor	
Process control/change measures	: No other specific measures identified.
Contributing scenario controlling worker exposure for 20: General exposures (closed systems)	
Process control/change measures	: Handle substance within a closed system.
Contributing scenario controlling worker exposure for 21: General exposures (closed systems) Use in contained batch processes	
Process control/change measures	: Handle substance within a closed system.

Section 3 - Exposure estimation and reference to its source

Website:	: Not available.
Exposure estimation and reference to its source - Environment: 1: Product characteristics	
Exposure assessment (environment):	: The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 2: Product characteristics	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 3: Filling/preparation of equipment from drums or containers. Use in contained systems	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 4: Preparation of material for application Use in contained batch processes	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 5: Film formation - air drying Outdoor	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Exposure estimation and reference to its source - Workers: 6: Film formation - air drying Indoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 7: Preparation of material for application Indoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 8: Preparation of material for application Outdoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 9: Material transfers Non-dedicated facility		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 10: Material transfers Dedicated facility		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 11: Roller, spreader, flow application Indoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 12: Roller, spreader, flow application Outdoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 13: Manual Spraying Indoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 14: Manual Spraying Outdoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 15: Dipping, immersion and pouring Indoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 16: Dipping, immersion and pouring Outdoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 17: Laboratory activities		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 18: Hand application - fingerpaints, pastels, adhesives Indoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 19: Hand application - fingerpaints, pastels, adhesives Outdoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 20: General exposures (closed systems)		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 21: General exposures (closed systems) Use in contained batch processes		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.
Health	:	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.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.

Identification of the substance or mixture

Product definition	:	Mixture
Code	:	C3K0GSG4G
Product name	:	SPIRDANE HT LC

Section 1 - Title

Short title of the exposure scenario	:	Use in cleaning agents - Professional
List of use descriptors	:	**Identified use name:** Use in cleaning agents - Professional **Process Category:** PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC10, PROC11, PROC13 **Substance supplied to that use in form of:** As such **Sector of end use:** SU22 **Subsequent service life relevant for that use:** No. **Environmental Release Category:** ERC08a, ERC08d
Environmental contributing scenarios	:	**Product characteristics**
Health Contributing scenarios	:	**Product characteristics** **Filling/preparation of equipment from drums or containers. Non-dedicated facility** - PROC08a **Filling/preparation of equipment from drums or containers. Dedicated facility** - PROC08b **Automated process with (semi) closed systems Use in contained systems** - PROC02 **Automated process with (semi) closed systems Drum/batch transfers Use in contained systems** - PROC03 **Semi-automated process. (e.g.: semi-automatic application of floor care and maintenance products)** - PROC04 **Manual Surfaces Cleaning Dipping, immersion and pouring** - PROC13 **Cleaning with low-pressure washers Rolling, Brushing No spraying** - PROC10 **Cleaning with high-pressure washers Spraying Indoor use** - PROC11 **Cleaning with high-pressure washers Spraying Outdoor use** - PROC11 **Manual Surfaces Cleaning Spraying** - PROC10 **Ad hoc manual application via trigger sprays, dipping, etc. Rolling, Brushing** - PROC10 **Application of cleaning products in closed systems Outdoor** - PROC04 **Cleaning of medical devices** - PROC04 **Material storage** - PROC01
Processes and activities covered by the exposure scenario	:	Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. 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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: Product characteristics

Product characteristics	:	Substance is complex UVCB. Predominantly hydrophobic
Amounts used	:	Maximum daily site tonnage : $4.7e^{-1}$ kg/day
Frequency and duration of use	:	Continuous release Emission days : 365 days per year
Environment factors not influenced by risk management	:	Local freshwater dilution factor : 10 Local marine water dilution factor : 100

Other conditions affecting environmental exposure	:	Release fraction to air from process (initial release prior to RMM) : $2.0e^{-2}$ Release fraction to wastewater from process (initial release prior to RMM) : $1.0e^{-6}$ Release fraction to soil from process (initial release prior to RMM) : 0
Technical conditions and measures at process level (source) to prevent release	:	Common practices vary across sites thus conservative process release estimates used.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	:	Risk from environmental exposure is driven by freshwater. No wastewater treatment required.
Risk management measures - Air	:	Treat air emission to provide a typical removal efficiency of 0%
Risk management measures - Water	:	Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of 0% If discharging to municipal sewage treatment plant, provide the required on-site wastewater removal efficiency of 0%
Organisational measures to prevent/limit release from site	:	Prevent discharge of undissolved substance to or recover from onsite wastewater. Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.
Conditions and measures related to sewage treatment plant	:	Estimated substance removal from wastewater via municipal sewage treatment : 93.7% Total efficiency of removal from wastewater after on-site and off-site (municipal treatment plant) RMMs : 93.7% Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal : $4.7e^{+2}$ kg/day Assumed domestic sewage treatment plant flow : 2 000 m³/day
Conditions and measures related to external treatment of waste for disposal	:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	:	External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2: Product characteristics

Product characteristics	:	Substance is complex UVCB.
Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid, vapour pressure < 0.5 kPa at Standard Temperature and Pressure
Amounts used	:	No limit
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours (unless stated differently)
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature. (unless stated differently) Assumes a good basic standard of occupational hygiene has been implemented

Contributing scenario controlling worker exposure for 3: Filling/preparation of equipment from drums or containers. Non-dedicated facility

Process control/change measures	:	No other specific measures identified.

Contributing scenario controlling worker exposure for 4: Filling/preparation of equipment from drums or containers. Dedicated facility

Process control/change measures	:	No other specific measures identified.

Contributing scenario controlling worker exposure for 5: Automated process with (semi) closed systems Use in contained systems

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 6: Automated process with (semi) closed systems Drum/batch transfers Use in contained systems

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 7: Semi-automated process. (e.g.: semi-automatic application of floor care and maintenance products)

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 8: Manual Surfaces Cleaning Dipping, immersion and pouring

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 9: Cleaning with low-pressure washers Rolling, Brushing No spraying

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 10: Cleaning with high-pressure washers Spraying Indoor use

Process control/change measures : Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
or
Wear a respirator conforming to EN140 with type A filter or better.

Contributing scenario controlling worker exposure for 11: Cleaning with high-pressure washers Spraying Outdoor use

Process control/change measures : Ensure operation is undertaken outdoors.
Limit the substance content in the product to 25%.
or
Wear a respirator conforming to EN140 with type A filter or better.

Contributing scenario controlling worker exposure for 12: Manual Surfaces Cleaning Spraying

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 13: Ad hoc manual application via trigger sprays, dipping, etc. Rolling, Brushing

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 14: Application of cleaning products in closed systems Outdoor

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 15: Cleaning of medical devices

Process control/change measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 16: Material storage

Process control/change measures : No other specific measures identified.

Section 3 - Exposure estimation and reference to its source

Website:	:	Not available.

Exposure estimation and reference to its source - Environment: 1: Product characteristics

Exposure assessment (environment):	:	The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 2: Product characteristics

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 3: Filling/preparation of equipment from drums or containers. Non-dedicated facility

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 4: Filling/preparation of equipment from drums or containers. Dedicated facility

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 5: Automated process with (semi) closed systems Use in contained systems

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 6: Automated process with (semi) closed systems Drum/batch transfers Use in contained systems

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 7: Semi-automated process. (e.g.: semi-automatic application of floor care and maintenance products)

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 8: Manual Surfaces Cleaning Dipping, immersion and pouring

Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Workers: 9: Cleaning with low-pressure washers Rolling, Brushing No spraying		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 10: Cleaning with high-pressure washers Spraying Indoor use		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 11: Cleaning with high-pressure washers Spraying Outdoor use		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 12: Manual Surfaces Cleaning Spraying		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 13: Ad hoc manual application via trigger sprays, dipping, etc. Rolling, Brushing		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 14: Application of cleaning products in closed systems Outdoor		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 15: Cleaning of medical devices		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Workers: 16: Material storage		
Exposure assessment (human):	:	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	:	Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Further details on scaling and control technologies are provided in SPERC factsheet.
Health	:	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.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.

Identification of the substance or mixture

Product definition : Mixture

Code : C3K0GSG4G

Product name : SPIRDANE HT LC

Section 1 - Title

Short title of the exposure scenario : Use in coatings - Consumer

List of use descriptors :
Identified use name: Use in coatings - Consumer
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC01, PC04, PC08, PC09a, PC09b, PC09c, PC15, PC18, PC23, PC24, PC31, PC34

Environmental contributing scenarios : **Product characteristics**

Health Contributing scenarios :
Product characteristics
Adhesives, sealants Glues, hobby use - PC01
Adhesives, sealants Glues DIY-use (carpet glue, tile glue, wood parquet glue) - PC01
Adhesives, sealants Glue from spray - PC01
Adhesives, sealants Sealants - PC01
Anti-freeze and de-icing products Washing car window - PC04
Anti-freeze and de-icing products Pouring into radiator - PC04
Anti-freeze and de-icing products Lock de-icer - PC04
Biocidal products Laundry and dish-washing products - PC08
Biocidal products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) - PC08
Biocidal products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) - PC08
Coatings and paints, thinners, paint removers Water-borne latex wall paint - PC09a
Coatings and paints, thinners, paint removers Solvent-rich, high-solid, water-borne paint - PC09a
Coatings and paints, thinners, paint removers Aerosol spray can - PC09a
Coatings and paints, thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover) - PC09a
Fillers, putties, plasters, modelling clay Fillers and putty - PC09b
Fillers, putties, plasters, modelling clay Plasters and floor equalizers - PC09b
Fillers, putties, plasters, modelling clay Modelling clay - PC09b
Finger paints - PC09c
Non-metal surface treatment products Water-borne latex wall paint - PC15
Non-metal surface treatment products Solvent-rich, high-solid, water-borne paint - PC15
Non-metal surface treatment products Aerosol spray can - PC15
Non-metal surface treatment products Removers (paint-, glue-, wall paper-, sealant-remover) - PC15
Ink and toners - PC18
Leather treatment products Polishes, wax/cream (floor, furniture, shoes) - PC23
Leather treatment products Polishes, spray (furniture, shoes) - PC23
Polishes and wax blends Polishes, wax/cream (floor, furniture, shoes) - PC31
Polishes and wax blends Polishes, spray (furniture, shoes) - PC31
Textile dyes and impregnating products - PC34
Lubricants, greases, release products Liquids - PC24
Lubricants, greases, release products Pastes - PC24

Lubricants, greases, release products Sprays - PC24

Processes and activities covered by the exposure scenario	:	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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: Product characteristics

Product characteristics	:	Substance is complex UVCB. Predominantly hydrophobic
Amounts used	:	Maximum daily site tonnage : $6.0e^{+0}$ kg/day
Frequency and duration of use	:	Continuous release Emission days : 365 days per year
Environment factors not influenced by risk management	:	Local freshwater dilution factor : 10 Local marine water dilution factor : 100
Other conditions affecting environmental exposure	:	Release fraction to air from process (initial release prior to RMM) : 0.985 Release fraction to wastewater from process (initial release prior to RMM) : 0.01 Release fraction to soil from process (initial release prior to RMM) : 0.005
Conditions and measures related to sewage treatment plant	:	Estimated substance removal from wastewater via municipal sewage treatment : 93.7% Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal : $1.8e^{+3}$ kg/day Assumed domestic sewage treatment plant flow : 2000 m³/day
Conditions and measures related to external treatment of waste for disposal	:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	:	External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling consumer exposure for 2: Product characteristics

Product characteristics	:	Substance is complex UVCB.
Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid, vapour pressure < 0.5 kPa at Standard Temperature and Pressure
Amounts used	:	Covers use up to 13 800g Covers skin contact area up to 857.5 cm² (unless stated differently)
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 6 h/event (unless stated differently)
Other given operational conditions affecting consumers exposure	:	Assumes activities are at room temperature. Assumes use in a 20 m3 room Assumes use with typical ventilation (unless stated differently)

Contributing scenario controlling consumer exposure for 3: Adhesives, sealants Glues, hobby use

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

Concentration of substance in mixture or article	:	Covers concentrations up to 30%
Amounts used	:	Covers use up to 9 g/event Covers skin contact area up to 35.73 cm²
Frequency and duration of use/exposure	:	Covers exposure up to 4 h/event

Contributing scenario controlling consumer exposure for 4: Adhesives, sealants Glues DIY-use (carpet glue, tile glue, wood parquet glue)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 30%
Amounts used	:	Covers use up to 6390 g/event Covers skin contact area up to 110 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 1 days per year

Contributing scenario controlling consumer exposure for 5: Adhesives, sealants Glue from spray

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

Concentration of substance in mixture or article	:	Covers concentrations up to 30%
Amounts used	:	Covers use up to 85.05 g/event Covers skin contact area up to 35.73 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 6 days per year Covers exposure up to 4 h/event

Contributing scenario controlling consumer exposure for 6: Adhesives, sealants Sealants

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

Concentration of substance in mixture or article	:	Covers concentrations up to 30%
Amounts used	:	Covers use up to 75 g/event Covers skin contact area up to 35.73 cm²
Frequency and duration of use/exposure	:	Covers exposure up to 1 h/event

Contributing scenario controlling consumer exposure for 7: Anti-freeze and de-icing products Washing car window

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1%
Amounts used	:	Covers use up to 0.5 g/event
Frequency and duration of use/exposure	:	Covers exposure up to 1 min/event
Area of use:	:	Covers use in a one car garage (>34 m³) under typical ventilation.

Contributing scenario controlling consumer exposure for 8: Anti-freeze and de-icing products Pouring into radiator

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

Concentration of substance in mixture or article	:	Covers concentrations up to 10%
Amounts used	:	Covers use up to 2000 g/event Covers skin contact area up to 428 cm²
Frequency and duration of use/exposure	:	Covers exposure up to 10 min/event
Area of use:	:	Covers use in a one car garage (>34 m³) under typical ventilation.

Contributing scenario controlling consumer exposure for 9: Anti-freeze and de-icing products Lock de-icer

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 4 g/event Covers skin contact area up to 214.40 cm^2
Frequency and duration of use/exposure	:	Covers exposure up to 15 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 10: Biocidal products Laundry and dish-washing products

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

Concentration of substance in mixture or article	:	Covers concentrations up to 5%
Amounts used	:	Covers use up to 15 g/event
Frequency and duration of use/exposure	:	Covers exposure up to 30 min/event

Contributing scenario controlling consumer exposure for 11: Biocidal products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 5%
Amounts used	:	Covers use up to 27 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 128 days per year Covers exposure up to 20 min/event

Contributing scenario controlling consumer exposure for 12: Biocidal products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 15%
Amounts used	:	Covers use up to 35 g/event Covers skin contact area up to 428 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 128 days per year Covers exposure up to 10 min/event

Contributing scenario controlling consumer exposure for 13: Coatings and paints, thinners, paint removers Water-borne latex wall paint

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1.5%
Amounts used	:	Covers use up to 2760 g/event Covers skin contact area up to 428.75 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 4 days per year Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 14: Coatings and paints, thinners, paint removers Solvent-rich, high-solid, water-borne paint

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

Concentration of substance in mixture or article	:	Covers concentrations up to 27.5%
Amounts used	:	Covers use up to 744 g/event Covers skin contact area up to 428.75 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 6 days per year Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 15: Coatings and paints, thinners, paint removers Aerosol spray can

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 215 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 2 days per year Covers exposure up to 20 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 16: Coatings and paints, thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover)

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

Amounts used	:	Covers use up to 491 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 3 days per year Covers exposure up to 2 h/event

Contributing scenario controlling consumer exposure for 17: Fillers, putties, plasters, modelling clay Fillers and putty

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

Concentration of substance in mixture or article	:	Covers concentrations up to 2%
Amounts used	:	Covers use up to 85 g/event Covers skin contact area up to 35.73 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 12 days per year Covers exposure up to 4 h/event

Contributing scenario controlling consumer exposure for 18: Fillers, putties, plasters, modelling clay Plasters and floor equalizers

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

Concentration of substance in mixture or article	:	Covers concentrations up to 2%
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 12 days per year Covers exposure up to 2 h/event

Contributing scenario controlling consumer exposure for 19: Fillers, putties, plasters, modelling clay Modelling clay

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1%
Amounts used	:	Covers skin contact area up to 254.40 cm^2
Other given operational conditions affecting consumers exposure	:	For each use event, assumes swallowed amount of 1 g

Contributing scenario controlling consumer exposure for 20: Finger paints

Avoid using at a product concentration greater than 5%

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers skin contact area up to 254.40 cm²
Other given operational conditions affecting consumers exposure	:	For each use event, assumes swallowed amount of 1.35 g

Contributing scenario controlling consumer exposure for 21: Non-metal surface treatment products Water-borne latex wall paint

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1.5%
Amounts used	:	Covers use up to 2760 g/event Covers skin contact area up to 428.75 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 4 days per year Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 22: Non-metal surface treatment products Solvent-rich, high-solid, water-borne paint

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

Concentration of substance in mixture or article	:	Covers concentrations up to 27.5%
Amounts used	:	Covers use up to 744 g/event Covers skin contact area up to 428.75 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 6 days per year Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 23: Non-metal surface treatment products Aerosol spray can

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 215 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 2 days per year Covers exposure up to 20 min/event
Area of use:	:	Covers use in a one car garage (>34 m³) under typical ventilation.

Contributing scenario controlling consumer exposure for 24: Non-metal surface treatment products Removers (paint-, glue-, wall paper-, sealant-remover)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 491 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 3 days per year Covers exposure up to 2 h/event

Contributing scenario controlling consumer exposure for 25: Ink and toners

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

Concentration of substance in mixture or article	:	Covers concentrations up to 10%
Amounts used	:	Covers use up to 40 g/event Covers skin contact area up to 71.40 cm²
Frequency and duration of use/exposure	:	Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 26: Leather treatment products Polishes, wax/cream (floor, furniture, shoes)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 56 g/event Covers skin contact area up to 430 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 29 days per year Covers exposure up to 1.23 h/event

Contributing scenario controlling consumer exposure for 27: Leather treatment products Polishes, spray (furniture, shoes)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 56 g/event Covers skin contact area up to 430 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 8 days per year Covers exposure up to 20 min/event

Contributing scenario controlling consumer exposure for 28: Polishes and wax blends Polishes, wax/cream (floor, furniture, shoes)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 142 g/event Covers skin contact area up to 430 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 29 days per year Covers exposure up to 1.23 h/event

Contributing scenario controlling consumer exposure for 29: Polishes and wax blends Polishes, spray (furniture, shoes)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 35 g/event Covers skin contact area up to 430 cm²
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 8 days per year Covers exposure up to 20 min/event

Contributing scenario controlling consumer exposure for 30: Textile dyes and impregnating products

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

Concentration of substance in mixture or article	:	Covers concentrations up to 10%
Amounts used	:	Covers use up to 115 g/event
Frequency and duration of use/exposure	:	Covers exposure up to 1 h/event

Contributing scenario controlling consumer exposure for 31: Lubricants, greases, release products Liquids

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

Amounts used	:	Covers use up to 2200 g/event Covers skin contact area up to 468 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 4 days per year Covers exposure up to 10 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 32: Lubricants, greases, release products Pastes

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

Concentration of substance in mixture or article	:	Covers concentrations up to 20%
Amounts used	:	Covers use up to 34 g/event Covers skin contact area up to 468 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 10 days per year Covers exposure up to 4 h/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 33: Lubricants, greases, release products Sprays

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 73 g/event Covers skin contact area up to 428.75 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 6 days per year Covers exposure up to 10 min/event

Section 3 - Exposure estimation and reference to its source

Website:	:	Not available.

Exposure estimation and reference to its source - Environment: 1: Product characteristics

Exposure assessment (environment):	:	The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 2: Product characteristics

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 3: Adhesives, sealants Glues, hobby use

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 4: Adhesives, sealants Glues DIY-use (carpet glue, tile glue, wood parquet glue)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 5: Adhesives, sealants Glue from spray

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 6: Adhesives, sealants Sealants

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 7: Anti-freeze and de-icing products Washing car window

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 8: Anti-freeze and de-icing products Pouring into radiator

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 9: Anti-freeze and de-icing products Lock de-icer

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 10: Biocidal products Laundry and dish-washing products

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 11: Biocidal products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 12: Biocidal products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 13: Coatings and paints, thinners, paint removers Water-borne latex wall paint

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 14: Coatings and paints, thinners, paint removers Solvent-rich, high-solid, water-borne paint

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 15: Coatings and paints, thinners, paint removers Aerosol spray can

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 16: Coatings and paints, thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 17: Fillers, putties, plasters, modelling clay Fillers and putty

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 18: Fillers, putties, plasters, modelling clay Plasters and floor equalizers

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 19: Fillers, putties, plasters, modelling clay Modelling clay

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 20: Finger paints

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 21: Non-metal surface treatment products Water-borne latex wall paint

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 22: Non-metal surface treatment products Solvent-rich, high-solid, water-borne paint

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 23: Non-metal surface treatment products Aerosol spray can

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 24: Non-metal surface treatment products Removers (paint-, glue-, wall paper-, sealant-remover)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 25: Ink and toners

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 26: Leather treatment products Polishes, wax/ cream (floor, furniture, shoes)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 27: Leather treatment products Polishes, spray (furniture, shoes)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 28: Polishes and wax blends Polishes, wax/ cream (floor, furniture, shoes)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 29: Polishes and wax blends Polishes, spray (furniture, shoes)

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 30: Textile dyes and impregnating products

Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 31: Lubricants, greases, release products Liquids		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 32: Lubricants, greases, release products Pastes		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 33: Lubricants, greases, release products Sprays		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet.
Health	:	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.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.

Identification of the substance or mixture

Product definition : Mixture
Code : C3K0GSG4G
Product name : SPIRDANE HT LC

Section 1 - Title

Short title of the exposure scenario : Use in cleaning agents - Consumer

List of use descriptors :
Identified use name: Use in cleaning agents - Consumer
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC03, PC04, PC08, PC09a, PC09b, PC09c, PC24, PC35, PC38

Environmental contributing scenarios : **Product characteristics**

Health Contributing scenarios :
Product characteristics
Air care products Air care, instant action (aerosol sprays) - PC03
Air care products Air care, instant action (aerosol sprays) Pesticide Excipient only - PC03
Air care products Air care, continuous action (solid and liquid) - PC03
Air care products Air care, continuous action (solid and liquid) Pesticide Excipient only - PC03
Anti-freeze and de-icing products Washing car window - PC04
Anti-freeze and de-icing products Pouring into radiator - PC04
Anti-freeze and de-icing products Lock de-icer - PC04
Biocidal products Laundry and dish-washing products - PC08
Biocidal products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) - PC08
Biocidal products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) - PC08
Coatings and paints, thinners, paint removers Water-borne latex wall paint - PC09a
Coatings and paints, thinners, paint removers Solvent-rich, high-solid, water-borne paint - PC09a
Coatings and paints, thinners, paint removers Aerosol spray can - PC09a
Coatings and paints, thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover) - PC09a
Fillers, putties, plasters, modelling clay Fillers and putty - PC09b
Fillers, putties, plasters, modelling clay Plasters and floor equalizers - PC09b
Fillers, putties, plasters, modelling clay Modelling clay - PC09b
Finger paints - PC09c
Washing and cleaning products Laundry and dish-washing products - PC35
Washing and cleaning products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) - PC35
Washing and cleaning products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) - PC35
Welding and soldering products, flux products - PC38
Lubricants, greases, release products Liquids - PC24
Lubricants, greases, release products Pastes - PC24
Lubricants, greases, release products Sprays - PC24

Processes and activities covered by the exposure scenario : 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.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: Product characteristics		
Product characteristics	:	Substance is complex UVCB. Predominantly hydrophobic
Amounts used	:	Maximum daily site tonnage : $6.8e^{-2}$ kg/day
Frequency and duration of use	:	Continuous release Emission days : 365 days per year
Environment factors not influenced by risk management	:	Local freshwater dilution factor : 10 Local marine water dilution factor : 100
Other conditions affecting environmental exposure	:	Release fraction to air from process (initial release prior to RMM) : 0.95 Release fraction to wastewater from process (initial release prior to RMM) : 0.025 Release fraction to soil from process (initial release prior to RMM) : 0.025
Conditions and measures related to sewage treatment plant	:	Estimated substance removal from wastewater via municipal sewage treatment : 93.7% Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal : $6.3e^{+1}$ kg/day Assumed domestic sewage treatment plant flow : 2000 m³/day
Conditions and measures related to external treatment of waste for disposal	:	External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	:	External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling consumer exposure for 2: Product characteristics		
Product characteristics	:	Substance is complex UVCB.
Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently)
Physical state	:	Liquid, vapour pressure < 0.5 kPa at Standard Temperature and Pressure
Amounts used	:	Covers use up to 13 800g Covers skin contact area up to 857.5 cm² (unless stated differently)
Frequency and duration of use/exposure	:	Covers frequency up to: 4 uses per day; 365 days per year Covers exposure up to 8 h/event (unless stated differently)
Other given operational conditions affecting consumers exposure	:	Assumes activities are at room temperature. Assumes use in a 20 m3 room Assumes use with typical ventilation (unless stated differently)

Contributing scenario controlling consumer exposure for 3: Air care products Air care, instant action (aerosol sprays)		
No specific risk management measure identified beyond those operational conditions stated.		
Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 0.1 g/event
Frequency and duration of use/exposure	:	Covers exposure up to 15 min/event

Contributing scenario controlling consumer exposure for 4: Air care products Air care, instant action (aerosol sprays) Pesticide Excipient only

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 0.5 g/event
Frequency and duration of use/exposure	:	Covers exposure up to 15 min/event

Contributing scenario controlling consumer exposure for 5: Air care products Air care, continuous action (solid and liquid)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 10%
Amounts used	:	Covers use up to 0.48 g/event Covers skin contact area up to 35.70 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 8 h/event

Contributing scenario controlling consumer exposure for 6: Air care products Air care, continuous action (solid and liquid) Pesticide Excipient only

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 0.48 g/event Covers skin contact area up to 35.70 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 8 h/event

Contributing scenario controlling consumer exposure for 7: Anti-freeze and de-icing products Washing car window

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1%
Amounts used	:	Covers use up to 0.5 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 1 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 8: Anti-freeze and de-icing products Pouring into radiator

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

Concentration of substance in mixture or article	:	Covers concentrations up to 10%
Amounts used	:	Covers use up to 2000 g/event Covers skin contact area up to 428 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 10 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 9: Anti-freeze and de-icing products Lock de-icer

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 4 g/event Covers skin contact area up to 214.40 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 15 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 10: Biocidal products Laundry and dish-washing products

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

Concentration of substance in mixture or article	:	Covers concentrations up to 5%
Amounts used	:	Covers use up to 15 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 30 min/event

Contributing scenario controlling consumer exposure for 11: Biocidal products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 5%
Amounts used	:	Covers use up to 27 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 128 days per year Covers exposure up to 20 min/event

Contributing scenario controlling consumer exposure for 12: Biocidal products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

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

Concentration of substance in mixture or article	:	Covers concentrations up to 15%
Amounts used	:	Covers use up to 35 g/event Covers skin contact area up to 428 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 128 days per year Covers exposure up to 10 min/event

Contributing scenario controlling consumer exposure for 13: Coatings and paints, thinners, paint removers Water-borne latex wall paint

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1.5%
Amounts used	:	Covers use up to 2760 g/event Covers skin contact area up to 428.75 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 4 days per year Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 14: Coatings and paints, thinners, paint removers Solvent-rich, high-solid, water-borne paint

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

Concentration of substance in mixture or article	:	Covers concentrations up to 27.5%
Amounts used	:	Covers use up to 744 g/event Covers skin contact area up to 428.75 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 6 days per year Covers exposure up to 2.2 h/event

Contributing scenario controlling consumer exposure for 15: Coatings and paints, thinners, paint removers Aerosol spray can

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

Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 215 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 2 days per year Covers exposure up to 20 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.

Contributing scenario controlling consumer exposure for 16: Coatings and paints, thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover)

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

Amounts used	:	Covers use up to 491 g/event
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 3 days per year Covers exposure up to 2 h/event

Contributing scenario controlling consumer exposure for 17: Fillers, putties, plasters, modelling clay Fillers and putty

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

Concentration of substance in mixture or article	:	Covers concentrations up to 2%
Amounts used	:	Covers use up to 85 g/event Covers skin contact area up to 35.73 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 12 days per year Covers exposure up to 4 h/event

Contributing scenario controlling consumer exposure for 18: Fillers, putties, plasters, modelling clay Plasters and floor equalizers

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

Concentration of substance in mixture or article	:	Covers concentrations up to 2%
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 12 days per year Covers exposure up to 2 h/event

Contributing scenario controlling consumer exposure for 19: Fillers, putties, plasters, modelling clay Modelling clay

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

Concentration of substance in mixture or article	:	Covers concentrations up to 1%
Amounts used	:	Covers skin contact area up to 254.40 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 365 days per year

Other given operational conditions affecting consumers exposure	: For each use event, assumes swallowed amount of 1 g

Contributing scenario controlling consumer exposure for 20: Finger paints

Avoid using at a product concentration greater than 5%

Concentration of substance in mixture or article	: Covers concentrations up to 50%
Amounts used	: Covers skin contact area up to 254.40 cm^2
Frequency and duration of use/exposure	: Covers frequency up to: 1 application per day; 365 days per year
Other given operational conditions affecting consumers exposure	: For each use event, assumes swallowed amount of 1.35 g

Contributing scenario controlling consumer exposure for 21: Washing and cleaning products Laundry and dish-washing products

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

Concentration of substance in mixture or article	: Covers concentrations up to 5%
Amounts used	: Covers use up to 15 g/event
Frequency and duration of use/exposure	: Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 30 min/event

Contributing scenario controlling consumer exposure for 22: Washing and cleaning products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

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

Concentration of substance in mixture or article	: Covers concentrations up to 5%
Amounts used	: Covers use up to 27 g/event
Frequency and duration of use/exposure	: Covers frequency up to: 1 application per day; 128 days per year Covers exposure up to 20 min/event

Contributing scenario controlling consumer exposure for 23: Washing and cleaning products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

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

Concentration of substance in mixture or article	: Covers concentrations up to 15%
Amounts used	: Covers use up to 35 g/event Covers skin contact area up to 428 cm^2
Frequency and duration of use/exposure	: Covers frequency up to: 1 application per day; 128 days per year Covers exposure up to 10 min/event

Contributing scenario controlling consumer exposure for 24: Welding and soldering products, flux products

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

Concentration of substance in mixture or article	: Covers concentrations up to 20%
Amounts used	: Covers use up to 12 g/event
Frequency and duration of use/exposure	: Covers frequency up to: 1 application per day; 365 days per year Covers exposure up to 1 h/event

Contributing scenario controlling consumer exposure for 25: Lubricants, greases, release products Liquids		
No specific risk management measure identified beyond those operational conditions stated.		
Amounts used	:	Covers use up to 2200 g/event Covers skin contact area up to 468 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 4 days per year Covers exposure up to 10 min/event
Area of use:	:	Covers use in a one car garage (>34 m^3) under typical ventilation.
Contributing scenario controlling consumer exposure for 26: Lubricants, greases, release products Pastes		
No specific risk management measure identified beyond those operational conditions stated.		
Concentration of substance in mixture or article	:	Covers concentrations up to 20%
Amounts used	:	Covers use up to 34 g/event Covers skin contact area up to 468 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 10 days per year Covers exposure up to 4 h/event
Contributing scenario controlling consumer exposure for 27: Lubricants, greases, release products Sprays		
No specific risk management measure identified beyond those operational conditions stated.		
Concentration of substance in mixture or article	:	Covers concentrations up to 50%
Amounts used	:	Covers use up to 73 g/event Covers skin contact area up to 428.75 cm^2
Frequency and duration of use/exposure	:	Covers frequency up to: 1 application per day; 6 days per year Covers exposure up to 10 min/event

Section 3 - Exposure estimation and reference to its source

Website:	:	Not available.
Exposure estimation and reference to its source - Environment: 1: Product characteristics		
Exposure assessment (environment):	:	The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 2: Product characteristics		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 3: Air care products Air care, instant action (aerosol sprays)		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 4: Air care products Air care, instant action (aerosol sprays) Pesticide Excipient only		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Exposure estimation and reference to its source - Consumers: 5: Air care products Air care, continuous action (solid and liquid)

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 6: Air care products Air care, continuous action (solid and liquid) Pesticide Excipient only

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 7: Anti-freeze and de-icing products Washing car window

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 8: Anti-freeze and de-icing products Pouring into radiator

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 9: Anti-freeze and de-icing products Lock de-icer

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 10: Biocidal products Laundry and dish-washing products

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 11: Biocidal products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 12: Biocidal products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 13: Coatings and paints, thinners, paint removers Water-borne latex wall paint

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 14: Coatings and paints, thinners, paint removers Solvent-rich, high-solid, water-borne paint

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 15: Coatings and paints, thinners, paint removers Aerosol spray can

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 16: Coatings and paints, thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover)

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 17: Fillers, putties, plasters, modelling clay Fillers and putty

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 18: Fillers, putties, plasters, modelling clay Plasters and floor equalizers

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 19: Fillers, putties, plasters, modelling clay Modelling clay

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 20: Finger paints

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 21: Washing and cleaning products Laundry and dish-washing products

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 22: Washing and cleaning products Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Exposure assessment (human): : Used ECETOC TRA model

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Consumers: 23: Washing and cleaning products Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 24: Welding and soldering products, flux products		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 25: Lubricants, greases, release products Liquids		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 26: Lubricants, greases, release products Pastes		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.
Exposure estimation and reference to its source - Consumers: 27: Lubricants, greases, release products Sprays		
Exposure assessment (human):	:	Used ECETOC TRA model
Exposure estimation and reference to its source	:	Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet.
Health	:	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.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.