SAFETY DATA SHEET
HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

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

1.1. Product identifier

Product name HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Product number 58001

Synonyms; trade names SOLVESSO 150

REACH registration number 01-2119463588-24-XXXX

EC number 919-284-0

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

Identified uses Solvent. For further information, see attached Exposure Scenario.

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS@UnivarSolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 58001

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Carc. 2 - H351 STOT SE 3 - H336 Asp. Tox. 1 - H304

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

EC number 919-284-0

Hazard pictograms

Signal word Danger

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Hazard statements	H351 Suspected of causing cancer. H336 May cause drowsiness or dizziness. H304 May be fatal if swallowed and enters airways. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE, NAPHTHALENE

2.3. Other hazards

Product is a static accumulator Vapours may form explosive mixtures with air.
This substance is not classified as PBT or vPvB according to current EU criteria.
May cause eye and respiratory system irritation. Vapour may affect central nervous system.

SECTION 3: Composition/information on ingredients

3.1. Substances

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE **100%**

CAS number: —	EC number: 919-284-0	REACH registration number: 01-2119463588-24-XXXX

Classification
Carc. 2 - H351
STOT SE 3 - H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

NAPHTHALENE **10%**

CAS number: 91-20-3	EC number: 202-049-5	REACH registration number: 01-2119561346-37-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Acute Tox. 4 - H302
Carc. 2 - H351
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Composition comments	The data shown are in accordance with the latest EC Directives.

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

SECTION 4: First aid measures

4.1. Description of first aid measures

General information First aid personnel should wear appropriate protective equipment during any rescue. Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues. If breathing stops, provide artificial respiration. Get medical attention immediately.

Ingestion Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

General information Suspected of causing cancer.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. May cause drowsiness or dizziness. Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.

Ingestion Aspiration hazard if swallowed. May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.

Skin contact Repeated exposure may cause skin dryness or cracking. Product has a defatting effect on skin. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact May cause temporary eye irritation.

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

Notes for the doctor Treat symptomatically. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

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

5.2. Special hazards arising from the substance or mixture

Specific hazards Suspected of causing cancer. Toxic to aquatic life with long lasting effects. When heated, vapours/gases hazardous to health may be formed. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Acrid smoke or fumes.

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

5.3. Advice for firefighters

Protective actions during firefighting Evacuate area. No action shall be taken without appropriate training or involving any personal risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Follow precautions for safe handling described in this safety data sheet. Keep unnecessary and unprotected personnel away from the spillage. Approach the spillage from upwind. Provide adequate ventilation. Use water spray to reduce vapours. Avoid inhalation of vapours and contact with skin and eyes. Do not touch or walk into spilled material. Take care as floors and other surfaces may become slippery. No smoking, sparks, flames or other sources of ignition near spillage. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions Toxic to aquatic life with long lasting effects. Avoid the spillage or runoff entering drains, sewers or watercourses. 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

Methods for cleaning up Toxic to aquatic life with long lasting effects. Stop leak if safe to do so. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Avoid the spillage or runoff entering drains, sewers or watercourses. Use water spray to reduce vapours. Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Take care as floors and other surfaces may become slippery. Clean contaminated objects and areas thoroughly, observing environmental regulations.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Handle all packages and containers carefully to minimise spills. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid inhalation of vapours and contact with skin and eyes. Take care as floors and other surfaces may become slippery. Product is a static accumulator Earth container and transfer equipment to eliminate sparks from static electricity. Static electricity and formation of sparks must be prevented.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Provide eyewash station and safety shower.

7.2. Conditions for safe storage, including any incompatibilities

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Storage precautions

Product is a static accumulator Earth container and transfer equipment to eliminate sparks from static electricity. Storage tanks and other containers must be earthed. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid excessive heat for prolonged periods of time. Container must be kept tightly closed when not in use. Loosen closure cautiously before opening.
Store at temperatures above -8°C.
Suitable container materials: Carbon steel. Stainless steel. Polytetrafluoroethylene (PTFE, Teflon). Polyvinyl alcohol (PVA).
Unsuitable container materials: Butyl rubber.
Store away from the following materials: Strong oxidising agents.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Vapour
100 mg/m3, 19 ppm, TWA Manuf. data

NAPHTHALENE

Long-term exposure limit (8-hour TWA): WEL 10 ppm(Sk) 53 mg/m3(Sk)
Short-term exposure limit (15-minute): WEL 15 ppm(Sk) 80 mg/m3(Sk)
WEL = Workplace Exposure Limit

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

DNEL

Industry - Dermal; : 12.5 mg/kg/day
Industry - Inhalation; : 150 mg/m³
Consumer - Dermal; : 7.5 mg/kg/day
Consumer - Inhalation; : 32 mg/m³
Consumer - Oral; : 7.5 mg/kg/day

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate ventilation. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. Avoid inhalation of vapours and contact with skin and eyes. Provide eyewash station and safety shower.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Chemical splash goggles.

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. For exposure up to 8 hours, wear gloves made of the following material: Viton rubber (fluoro rubber). Protective gloves should have a minimum thickness of 0.71 mm. Frequent changes are recommended.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear anti-static protective clothing if there is a risk of ignition from static electricity.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Wash contaminated clothing before reuse.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter. Gas filter, type A2. EN 136/140/141/145/143/149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Aromatic.
Odour threshold	No information available.
pH	Technically not feasible.
Melting point	No information available.
Initial boiling point and range	182 - 206°C @ 760 mm Hg
Flash point	67°C Pensky-Martens closed cup.
Evaporation rate	0.08 (butyl acetate = 1)
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 7.0 % Lower flammable/explosive limit: 0.9 %
Vapour pressure	0.08 kPa @ 20°C Calculation method.
Vapour density	4.6 @ 101 kPa
Relative density	0.9 @ 15°C Calculation method.
Bulk density	900 kg/m³
Solubility(ies)	Immiscible with water.
Partition coefficient	log Pow: < 4 Estimated value.
Auto-ignition temperature	448°C

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Decomposition Temperature	No information available.
Viscosity	1.0 cSt @ 40°C 1.33 cSt @ 20°C Calculation method.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Molecular weight	134 g/mol Calculation method.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data specifically related to reactivity available for this product or its ingredients. See the other subsections of this section for further details.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Vapours may form explosive mixtures with air. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Static electricity and formation of sparks must be prevented.

10.5. Incompatible materials

Materials to avoid	Avoid contact with the following materials: Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Acrid smoke or fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} > 5000 mg/kg, Oral, Rat OECD 401 Read-across data.
ATE oral (mg/kg)	5,000.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 2000 mg/kg, Dermal, Rabbit OECD 402 Read-across data.

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC_{50} (4h) > 4688 mg/m³, Inhalation, Aerosol., Rat OECD 403 Read-across data.

Skin corrosion/irritation

Skin corrosion/irritation	Based on available data the classification criteria are not met. Slightly irritating. Read-across data.

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met. Slightly irritating. May cause temporary eye irritation. Read-across data.

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Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.
Not sensitising. OECD 406 Read-across data.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties. Read-across data.

Genotoxicity - in vivo No information available.

Carcinogenicity

Carcinogenicity Suspected of causing cancer.

Reproductive toxicity

Reproductive toxicity - fertility This substance has no evidence of toxicity to reproduction. Read-across data.

Reproductive toxicity - development This substance has no evidence of toxicity to reproduction. Read-across data.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure. Read-across data.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. May cause drowsiness or dizziness. Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.

Ingestion Aspiration hazard if swallowed. May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.

Skin contact Repeated exposure may cause skin dryness or cracking. Product has a defatting effect on skin. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact May cause temporary eye irritation.

Acute and chronic health hazards Suspected of causing cancer.

Toxicological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 5,000.0

Species Rat

Notes (oral LD_{50}) OECD 401

Acute toxicity - dermal

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Acute toxicity dermal (LD_{50} mg/kg)	2,000.0
Species	Rat
Notes (dermal LD_{50})	OECD 402
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	4,688.0
Species	Rat
Notes (inhalation LC_{50})	OECD 403
ATE inhalation (vapours mg/l)	4,688.0
Skin corrosion/irritation	
Animal data	OECD 404 Not irritating.
Serious eye damage/irritation	
Serious eye damage/irritation	Not irritating.
Respiratory sensitisation	
Respiratory sensitisation	No information available.
Skin sensitisation	
Skin sensitisation	- Guinea pig: OECD 406 Not sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	Ames test: Negative.
Genotoxicity - in vivo	Chromosome aberration: Negative. This substance has no evidence of mutagenic properties.
Carcinogenicity	
Carcinogenicity	Suspected of causing cancer.
Reproductive toxicity	
Reproductive toxicity - fertility	Multi-generation study - NOAEL 2.74 mg/l, Inhalation, Rat F1
Reproductive toxicity - development	Teratogenicity: - NOAEL: > 450 mg/kg, Oral, Rat This substance has no evidence of toxicity to reproduction.
Specific target organ toxicity - single exposure	
STOT - single exposure	No information available.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	NOAEL 300 mg/kg, Oral, Rat
Aspiration hazard	
Aspiration hazard	No information available.

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Inhalation	Irritating to respiratory system. Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	Harmful: may cause lung damage if swallowed.
Skin contact	Irritating to skin. Product has a defatting effect on skin. May cause allergic contact eczema.
Eye contact	Irritating to eyes.

NAPHTHALENE

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} 50533 mg/kg, Oral, Mouse
ATE oral (mg/kg)	500.0

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC_{50} (4h): > 0.4 mg/l, Inhalation, Vapour, Rat (MAC)

Carcinogenicity

Carcinogenicity	Suspected of causing cancer.

Inhalation	Irritating to respiratory system.
Ingestion	Harmful if swallowed.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

NAPHTHALENE

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >= 2.0 - <= 5.0 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >= 3.0 - <= 10.0 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: >= 1.0 - <= 3.0 mg/l, Pseudokirchneriella subcapitata NOEC, 72 hour: 1.0 mg/l, Pseudokirchneriella subcapitata

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Toxicity	Toxic to aquatic life.
Acute aquatic toxicity	
Acute toxicity - fish	LC50, 96 hours: > 2 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: > 3 mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOEC, 72 hours: 2.5 mg/l, Scenedesmus subspicatus
Chronic aquatic toxicity	
Chronic toxicity - fish early life stage	NOEC, 28 days: 0.487 mg/l, Oncorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.851 mg/l, Daphnia magna

NAPHTHALENE

Acute aquatic toxicity	
$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 48 hours: 0.96 mg/l,
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 2.16 mg/l, Daphnia magna
Chronic aquatic toxicity	
M factor (Chronic)	1
Chronic toxicity - fish early life stage	NOEC, 40 days: 0.37 mg/l,
Chronic toxicity - aquatic invertebrates	NOEC, : 0.6 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability	Inherently biodegradable.
Phototransformation	Transformation due to photolysis not expected to be significant.
Stability (hydrolysis)	Transformation due to hydrolysis not expected to be significant
Biodegradation	Water - Degradation 58%: 28 days

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Persistence and degradability	Inherently biodegradable.
Biodegradation	- Degradation (%) 57.95: 28 days OECD 301F

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: < 4 Estimated value.

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Bioaccumulative potential The product contains potentially bioaccumulating substances.

Partition coefficient No information available.

12.4. Mobility in soil

Mobility The product is insoluble in water and will sediment in water systems. Mobile.

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Mobility The product is insoluble in water.

NAPHTHALENE

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

Ecological information on ingredients.

HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Empty containers or liners may retain some product residues and hence be potentially hazardous. Do not puncture or incinerate, even when empty. Do not pressurise, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE, NAPHTHALENE)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE, NAPHTHALENE)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE, NAPHTHALENE)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS HYDROCARBONS C10 AROMATICS >1% NAPHTHALENE, NAPHTHALENE)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (-)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

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

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.
DSL

US - TSCA
All the ingredients are listed or exempt.

Australia - AICS
All the ingredients are listed or exempt.

Japan - ENCS
All the ingredients are listed or exempt.

Korea - KECI
All the ingredients are listed or exempt.

China - IECSC
All the ingredients are listed or exempt.

Philippines – PICCS
All the ingredients are listed or exempt.

Taiwan - TCSI
All the ingredients are listed or exempt.

SECTION 16: Other information

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
Kow: Octanol-water partition coefficient.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
vPvB: Very Persistent and Very Bioaccumulative.
IARC: International Agency for Research on Cancer.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
cATpE: Converted Acute Toxicity Point Estimate.
BCF: Bioconcentration Factor.
BOD: Biochemical Oxygen Demand.
EC_{50}: 50% of maximal Effective Concentration.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
LOEC: Lowest Observed Effect Concentration.
DMEL: Derived Minimal Effect Level.
EL50: Exposure Limit 50
hPa: Hectopascal
LL50: Lethal Loading fifty
OECD: Organisation for Economic Co-operation and Development
POW: Octanol-water partition coefficient
SCBA: self-contained breathing apparatus
STP: Sewage Treatment Plant
VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

This is the first issue.

Revision date

02/10/2019

Version number

1.000

SDS number

58001

SDS status

Approved.

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Hazard statements in full

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Signature

Jacq Pattinson

Exposure scenario
Manufacture of substance

Identification

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS@UnivarSolutions.com

1. Title of exposure scenario

Main title	Manufacture of substance
Process scope	Manufacture of the substance or use as a process chemical or extraction agent within closed or contained systems. Includes incidental exposures during recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).
Main sector	SU3 Industrial uses SU8 Manufacture of bulk, large-scale chemicals (including petroleum products) SU9 Manufacture of fine chemicals SU10 Formulation [mixing] of preparations and/or re-packaging

Environment

Environmental release category	ERC1 Manufacture of the substance ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Worker

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

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

Manufacture of substance

Product characteristics

Physical state Liquid

Concentration details Covers concentrations up to 100 %.

Amounts used

Annual amount per site: 9500 tonnes

Frequency and duration of use

Emission days: 100 days/year

Risk management measures

Good practice Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air Treat air emission to provide a typical removal efficiency of 90%.

Water Typical onsite wastewater treatment technology provides removal efficiency of 74.9%.

Soil Do not apply industrial sludge to natural soils.

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

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

Product characteristics

Physical state Liquid

Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

Setting Indoor use.

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

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Assumes a good basic standard of occupational hygiene is implemented.

Risk management measures

Manufacture of substance

Do not ingest. If swallowed, then seek immediate medical assistance.
Do not induce vomiting.
Handle product within a closed system.

3. Exposure estimation (Environment 1)

Assessment method

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

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

Further details on scaling and control technologies are provided in SpERC factsheet. 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. Maximum Risk Characterisation Ratios for air emissions 0.00011 Maximum Risk Characterisation Ratios for wastewater emissions 0.21 Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

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

Available hazard data do not support the need for a DNEL to be established for other health effects. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented. Risk Management Measures are based on qualitative risk characterisation. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario
Distribution of substance

Identification

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS@UnivarSolutions.com

1. Title of exposure scenario

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

Environment

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

Worker

Distribution of substance

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

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Amounts used

Annual amount per site: 0.29 tonnes
Maximum daily site tonnage: 15 kg

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0.001
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.00001
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0.00001

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100

Risk management measures

Good practice	Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
STP details	Estimated substance removal from wastewater via domestic sewage treatment: 94.6% Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 94.6%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air	Treat air emission to provide a typical removal efficiency of 90%.
Water	Typical onsite wastewater treatment technology provides removal efficiency of 0%.
Soil	Do not apply industrial sludge to natural soils.

Conditions and measures related to external treatment of waste for disposal

Sludge treatment	Sludge should be incinerated, contained or reclaimed.

Distribution of substance

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

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

Technical conditions and measures at process level (source) to prevent release

Technical protective measures	Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Assumes a good basic standard of occupational hygiene is implemented.

Risk management measures

Do not ingest. If swallowed, then seek immediate medical assistance.
Do not induce vomiting.
Handle product within a closed system.

3. Exposure estimation (Environment 1)

Assessment method	The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

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

Further details on scaling and control technologies are provided in SpERC factsheet. 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. Maximum Risk Characterisation Ratios for air emissions 0.0000067 Maximum Risk Characterisation Ratios for wastewater emissions 0.0017 Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

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

Distribution of substance

Available hazard data do not support the need for a DNEL to be established for other health effects. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented. Risk Management Measures are based on qualitative risk characterisation. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario
Use as an Intermediate

Identification

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS@UnivarSolutions.com

1. Title of exposure scenario

Main title	Use as an Intermediate
Process scope	Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).
Main sector	SU3 Industrial uses SU8 Manufacture of bulk, large-scale chemicals (including petroleum products) SU9 Manufacture of fine chemicals

Environment

Environmental release category	ERC6a Use of intermediate

Worker

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

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

Product characteristics

Physical state	Liquid

Use as an Intermediate

Concentration details Covers concentrations up to 100 %.

Amounts used

Daily amount per site: 1300 kg

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (after typical onsite RMMs): 0.001

Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 0.0003

Emission factor - soil Release fraction to soil from process (initial release prior to RMM): 0.001

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Good practice Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.

STP details Assumed onsite sewage treatment plant flow: 2000 m³/day
Estimated substance removal from wastewater via domestic sewage treatment: 94.6%

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air Treat air emission to provide a typical removal efficiency of 80%.

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

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

Product characteristics

Physical state Liquid

Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

Setting Indoor use.

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

Technical conditions and measures at process level (source) to prevent release

Use as an Intermediate

Technical protective measures Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Assumes a good basic standard of occupational hygiene is implemented.

Risk management measures

Do not ingest. If swallowed, then seek immediate medical assistance.
Do not induce vomiting.
Handle product within a closed system.

3. Exposure estimation (Environment 1)

Assessment method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

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

Further details on scaling and control technologies are provided in SpERC factsheet. 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. Maximum Risk Characterisation Ratios for air emissions 0.0000068 Maximum Risk Characterisation Ratios for wastewater emissions 0.014 Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

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

Available hazard data do not support the need for a DNEL to be established for other health effects. Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Risk Management Measures are based on qualitative risk characterisation. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario
Formulation and (re)packing of substances and mixtures

Identification

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS@UnivarSolutions.com

1. Title of exposure scenario

Main title	Formulation and (re)packing of substances and mixtures
Process scope	Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.
Main sector	SU3 Industrial uses SU10 Formulation [mixing] of preparations and/or re-packaging

Environment

Environmental release category	ERC2 Formulation into mixture

Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC14 Tabletting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent. PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Formulation and (re)packing of substances and mixtures

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

Product characteristics

Physical state Liquid

Concentration details Covers concentrations up to 100 %.

Amounts used

Annual amount per site: 70 tonnes
Daily amount per site: 7000 kg

Frequency and duration of use

Emission days: 10 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (after typical onsite RMMs): 0.01

Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 0.0002

Emission factor - soil Release fraction to soil from process (initial release prior to RMM): 0.0001

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Good practice Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.

STP details Assumed onsite sewage treatment plant flow: 2000 m³/day

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil

Air Treat air emission to provide a typical removal efficiency of 80%.

Conditions and measures related to external treatment of waste for disposal

Sludge treatment Do not apply industrial sludge to natural soils.

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

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

Product characteristics

Physical state Liquid

Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

Setting Indoor use.

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

Technical conditions and measures at process level (source) to prevent release

Formulation and (re)packing of substances and mixtures

Technical protective measures Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Assumes a good basic standard of occupational hygiene is implemented.

Risk management measures

Do not ingest. If swallowed, then seek immediate medical assistance.
Do not induce vomiting.
Handle product within a closed system.

3. Exposure estimation (Environment 1)

Assessment method The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

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

Further details on scaling and control technologies are provided in SpERC factsheet. 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. Maximum Risk Characterisation Ratios for air emissions 0.000015 Maximum Risk Characterisation Ratios for wastewater emissions 0.052752109 Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

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

Available hazard data do not support the need for a DNEL to be established for other health effects. Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Risk Management Measures are based on qualitative risk characterisation. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario
Use in Laboratories - Industrial

Identification

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS@UnivarSolutions.com

1. Title of exposure scenario

Main title	Use in Laboratories - Industrial
Process scope	Use of the substance within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC2 Formulation into mixture ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Worker

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

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Amounts used

Daily amount per site: 30 kg
Annual amount per site: 0.6 tonne

Frequency and duration of use

Emission days: 20 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (after typical onsite RMMs): 0.025

Use in Laboratories - Industrial

Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.02
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0.0001

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100

Risk management measures

Good practice	Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
STP details	Assumed onsite sewage treatment plant flow: 2000 m³/day Estimated substance removal from wastewater via domestic sewage treatment: 94.6%

Conditions and measures related to external treatment of waste for disposal

Sludge treatment	Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

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

Technical conditions and measures at process level (source) to prevent release

Technical protective measures	Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Assumes a good basic standard of occupational hygiene is implemented.

Risk management measures

Do not ingest. If swallowed, then seek immediate medical assistance.
Do not induce vomiting.
Handle product within a closed system.

3. Exposure estimation (Environment 1)

Use in Laboratories - Industrial

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

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

Further details on scaling and control technologies are provided in SpERC factsheet. 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. Maximum Risk Characterisation Ratios for air emissions 0.0000069 Maximum Risk Characterisation Ratios for wastewater emissions 0.023 Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

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

Available hazard data do not support the need for a DNEL to be established for other health effects. Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Risk Management Measures are based on qualitative risk characterisation. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Exposure scenario
Use in Laboratories - Professional

Identification

Product name	HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE
REACH registration number	01-2119463588-24-XXXX
EC number	919-284-0
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS@UnivarSolutions.com

1. Title of exposure scenario

Main title	Use in Laboratories - Professional
Process scope	Use of small quantities within laboratory settings, including material transfers and equipment cleaning.
Main sector	SU22 Professional uses

Environment

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

Worker

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

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Amounts used

Daily amount per site: 0.00082 kg
Annual amount per site: 0.0003 tonne

Frequency and duration of use

Emission days: 365 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (after typical onsite RMMs): 0.5

Use in Laboratories - Professional

Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.5
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100

Risk management measures

Good practice	Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases.
STP details	Assumed onsite sewage treatment plant flow: 2000 m³/day Estimated substance removal from wastewater via domestic sewage treatment: 94.6%

Conditions and measures related to external treatment of waste for disposal

Sludge treatment	Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.

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

Product characteristics

Physical state	Liquid
Concentration details	Covers concentrations up to 100 %.

Frequency and duration of use

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

Other given operational conditions affecting workers exposure

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

Technical conditions and measures at process level (source) to prevent release

Technical protective measures	Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and clear transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; Ensure suitable personal protective equipment is available; Clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Assumes a good basic standard of occupational hygiene is implemented.

Risk management measures

Do not ingest. If swallowed, then seek immediate medical assistance.
Do not induce vomiting.
Handle product within a closed system.

3. Exposure estimation (Environment 1)

Use in Laboratories - Professional

Assessment method

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

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

Further details on scaling and control technologies are provided in SpERC factsheet. 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. Maximum Risk Characterisation Ratios for air emissions 0.000023 Maximum Risk Characterisation Ratios for wastewater emissions 0.0017 Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

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

Available hazard data do not support the need for a DNEL to be established for other health effects. Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Risk Management Measures are based on qualitative risk characterisation. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.