

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

1.1. Product identifier

Product form : Mixture
Product name : FF- 40 DETERGENT
Product code : FF-40, PA15:50, A15:50

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : DETERGENT

1.2.2. Uses advised against

Restrictions on use : Not for Oral Consumption, Not for Direct Application to Food Stuffs

1.3. Details of the supplier of the safety data sheet

Manufacturer

PVA HYGIENE
UNIT 6 Havyat Business Park Havyat Road
BS40 5PA Bristol – United Kingdom
T +44 (0)1934 862 859
sales@pva-hygiene.co.uk

1.4. Emergency telephone number

Emergency number : 01934 862859 (Office Hours). For Immediate first aid advice in the UK call 111
This product is registered with NPIS in the UK.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
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

NOTE:- In Use Solutions of this Product are NOT CLASSIFIED.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains

Isocyclemone E; CITRONELLOL; HEXYL CINNAMAL; (R)-p-mentha-1,8-diene; d-limonene; TETRAHYDROLINALOOL; COUMARIN; GERANIOL; 3,7-Dimethylocta-1,6-dien-3-ol ; isoeugenol

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P102 - Keep out of reach of children.
P264 - Wash Skin thoroughly after handling.

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

This product does not contain any substances classified as PBT

This product does not contain any substances classified as vPvB.

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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] and GB CLP Regulations
sodium carbonate	CAS-No.: 497-19-8 EC-No.: 207-838-8 EC Index-No.: 011-005-00-2 REACH-no: 01-2119485498-19	$\geq 60 - < 70$	Eye Irrit. 2, H319
Citric Acid	CAS-No.: 77-92-9 EC-No.: 201-069-1 EC Index-No.: 607-750-00-3	$\geq 15 - < 20$	Eye Irrit. 2, H319 STOT SE 3, H335
β -Alanine, N-(2-carboxyethyl)-,N-coco alykyl derivs.,Disodium Salt	CAS-No.: 90170-43-7 EC-No.: 290-476-8 REACH-no: 01-2119976233-35	$\geq 8 - < 15$	Eye Irrit. 2, H319
Isocyclemone E	CAS-No.: 54464-57-2 EC-No.: 259-174-3	$\geq 0.1 - < 0.5$	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 1, H410
Peonile	CAS-No.: 10461-98-0 EC-No.: 423-740-1 EC Index-No.: 608-044-00-8	$\geq 0.1 - < 0.5$	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
AMYL SALICYLATE	CAS-No.: 2050-08-0 EC-No.: 218-080-2	$\geq 0.1 - < 0.5$	Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410
CITRONELLOL	CAS-No.: 106-22-9 EC-No.: 203-375-0	$\geq 0.1 - < 0.5$	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
HEXYL CINNAMAL	CAS-No.: 101-86-0 EC-No.: 202-983-3	$\geq 0.1 - < 0.5$	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 1, H410

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP] and GB CLP Regulations
HEXYL SALICYLATE	CAS-No.: 6259-76-3 EC-No.: 228-408-6	≥ 0.1 – < 0.5	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
(R)-p-mentha-1,8-diene; d-limonene	CAS-No.: 5989-27-5 EC-No.: 227-813-5 EC Index-No.: 601-029-00-7	≥ 0.1 – < 0.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
TETRAHYDROLINALOOL	CAS-No.: 78-69-3 EC-No.: 201-133-9	≥ 0.1 – < 0.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
COUMARIN	CAS-No.: 91-64-5 EC-No.: 202-086-7	≥ 0.1 – < 0.5	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Sens. 1, H317 Aquatic Chronic 2, H411
GERANIOL	CAS-No.: 106-24-1 EC-No.: 203-377-1	≥ 0.1 – < 0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
3,7-Dimethylocta-1,6-dien-3-ol	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2	≥ 0.1 – < 0.5	Skin Sens. 1B, H317
isoeugenol	CAS-No.: 97-54-1 EC-No.: 202-590-7 EC Index-No.: 604-094-00-X	< 0.1	Skin Sens. 1A, H317

Specific concentration limits:

Name	Product identifier	Specific concentration limits
isoeugenol	CAS-No.: 97-54-1 EC-No.: 202-590-7 EC Index-No.: 604-094-00-X	(0.01 ≤C ≤ 100) Skin Sens. 1A, H317

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	: If medical advice is needed, have product container or label at hand. For immediate First Aid advice in the UK, dial 111. When it is safe to do so, remove the victim immediately from the source of exposure. However, consideration should be given as to whether moving the victim will cause further injury.
First-aid measures after inhalation	: Unlikely without deliberate abuse. Move the affected person to the fresh air.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.

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

Symptoms/effects	: Neat product will cause irritation to eyes. Dilute solutions are unclassified, but may cause transient irritation. Eye contact should be treated as above.
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FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

Symptoms/effects after inhalation	: Unlikely route of exposure, but inhalation of dilute solution droplets may result in a sore throat.
Symptoms/effects after skin contact	: Prolonged or repeated exposure may result in irritation or redness, particularly on broken skin. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Unlikely route of exposure without deliberate abuse. If sachets are swallowed they may swell and could block the throat and GI tract. Irritation to the mouth and GI tract could occur, a soapy taste may be reported. Ingestion of diluted solution is unlikely to cause long term harm, but a soapy taste may be reported.

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

Rinse with plenty of water. Check for abrasion to the surface of the eye from powder particles.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire.
Unsuitable extinguishing media	: Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: The product is not flammable.
Hazardous decomposition products in case of fire	: On heating, irritating fumes may be produced.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid contact with eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Normal use solutions can be disposed to sewers and septic tanks. Large scale spillages or uncontrolled discharges into water systems must be reported to the relevant Environment Agency.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Collect and place spillage in suitable containers. Seal the containers and apply labelling to identify the material and hazards. For disposal see section 13 of this SDS.
Other information	: Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques.

6.4. Reference to other sections

For further information refer to section 13. See sections 2,8,12,13 &14.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Carefully comply with the instructions for use. Avoid contact with eyes.
Hygiene measures	: Always wash hands after handling the product.

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container.

7.3. Specific end use(s)

Observe local regulations for signage during cleaning operations. Dissolve a sachet in water as directed in use the instructions, remove gross debris and apply the made solution by mop, allow to air dry. Other modes of application can be used after suitable risk assessment.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

FF- 40 DETERGENT

United Kingdom - Occupational Exposure Limits

Remark	No exposure limits known for ingredients.
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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

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear protective gloves.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Normal use solutions are not classified and eye protection is not mandated, but should be considered if there is a risk of splashing. During manufacture and Packaging Eye Protection is required. Refer to EN166.

8.2.2.2. Skin protection

Hand protection:

During normal use gloves are not required. During manufacture and packing operations, the use of gloves with a breakthrough time >60 minutes is recommended. Refer to EN374 to select appropriate level of protection. Rubber and PVC gloves are recommended. Although not mandated in normal use, gloves should be considered for sensitive skin or long term contact.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Note:- This would be very unusual in normal use.

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid large scale release of undiluted material to the environment.

Other information:

The PPE indicated in this SDS is not a COSHH assessment. It represents the PPE that should be considered for the neat product at all stages of the products life cycle, including manufacture, packing, distribution, use and disposal. Use solutions are unclassified, but for these we recommend use of gloves as minimum PPE.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Colour	: Green.
Odour	: Fresh.
Odour threshold	: No data available
pH	: 9.2 – 10 @1%
Relative evaporation rate (butylacetate=1)	: Not applicable.
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
Flammability (solid, gas)	: Not Flammable
Vapour pressure	: Not applicable
Relative vapour density at 20°C	: Not applicable
Relative density	: 0.7 – 0.8
Solubility	: Completely soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Not oxidising.
Explosive limits	: Not applicable

9.2. Other information

VOC content : Not Volatile, contains no VOC's

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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

Store away from moisture in a closed container.

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

10.5. Incompatible materials

Strong acids. Oxidising agents. Do not mix with Bleach or products containing Sodium Hypochlorite, this could result in dangerous heating of the solution.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Citric Acid (77-92-9)

LD50 oral rat	3000 mg/kg Source: OECD Screening Information Data Set
ATE CLP (oral)	3000 mg/kg bodyweight

β -Alanine, N-(2-carboxyethyl)-,N-coco alykyl derivs.,Disodium Salt (90170-43-7)

LD50 oral rat	≈ 2000 mg/kg
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Peonile (10461-98-0)

LD50 oral rat	619 mg/kg bodyweight Animal: other:Rat (HanIbm:WIST (SPF)), Guideline: other:92/69/EEC, B1, 95% CL: 528,45 - 707,12
ATE CLP (oral)	619 mg/kg bodyweight

AMYL SALICYLATE (2050-08-0)

ATE CLP (oral)	500 mg/kg bodyweight
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HEXYL SALICYLATE (6259-76-3)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
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TETRAHYDROLINALOOL (78-69-3)

LD50 oral rat	8270 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
ATE CLP (oral)	8270 mg/kg bodyweight

COUMARIN (91-64-5)

LD50 oral rat	293 mg/kg bodyweight Animal: rat, Guideline: other:no data
LD50 dermal rat	293 mg/kg bodyweight Animal: rat, Guideline: other:no data
ATE CLP (oral)	293 mg/kg bodyweight
ATE CLP (dermal)	293 mg/kg bodyweight
ATE CLP (gases)	700 ppmv/4h
ATE CLP (vapours)	3 mg/l/4h
ATE CLP (dust,mist)	0.5 mg/l/4h

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

GERANIOL (106-24-1)	
LD50 oral rat	3600 mg/kg bodyweight Animal: rat, 95% CL: 2840 - 4570
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit
ATE CLP (oral)	3600 mg/kg bodyweight
3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)	
LD50 oral rat	2790 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2440 - 3180
LD50 dermal rabbit	5610 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 3578 - 8374
ATE CLP (oral)	2790 mg/kg bodyweight
ATE CLP (dermal)	5610 mg/kg bodyweight
Skin corrosion/irritation	: Not classified pH: 9.2 – 10 @1%
Serious eye damage/irritation	: Causes serious eye irritation. pH: 9.2 – 10 @1%
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: This mixture is not classified as a carcinogen.
GERANIOL (106-24-1)	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:Effect type: toxicity (migrated information)
Reproductive toxicity	: This mixture has no reproductive/foetal harm classifications and is not expected to be a risk to expectant mothers.
STOT-single exposure	: Not classified
Citric Acid (77-92-9)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
CITRONELLOL (106-22-9)	
NOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: other:Specifications for the Conduct of Studies to Evaluate the Toxic and Carcinogenic Potential of Chemical, Biological, and Physical Agents in Laboratory Animals for the National Toxicology Program (NTP)
HEXYL SALICYLATE (6259-76-3)	
NOAEL (oral, rat, 90 days)	46.9 mg/kg bodyweight Animal: rat
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
TETRAHYDROLINALOOL (78-69-3)	
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
GERANIOL (106-24-1)	
NOAEL (dermal, rat/rabbit, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: other:OECD Guideline 421 (Reproduction/Developmental Toxicity Screening test), Guideline: other:EPA OPPTS 870.3550 (Reproduction/Developmental Toxicity Screening Test)
3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)	
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
Aspiration hazard	: Not classified

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

FF- 40 DETERGENT	
Viscosity, kinematic	Not applicable
sodium carbonate (497-19-8)	
Viscosity, kinematic	Not applicable
HEXYL SALICYLATE (6259-76-3)	
Viscosity, kinematic	9.634 mm ² /s
TETRAHYDROLINALOOL (78-69-3)	
Viscosity, kinematic	13.393 mm ² /s
3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)	
Viscosity, kinematic	5.192 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Normal use solutions of this product are not classified for environmental harm.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.
Not rapidly degradable	

Citric Acid (77-92-9)	
LC50 - Fish [1]	48 mg/l Source: ECOTOX
Peonile (10461-98-0)	
EC50 - Other aquatic organisms [1]	2.3 mg/l Test organisms (species): other aquatic crustacea:DM
EC50 72h - Algae [1]	0.86 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	1.96 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
CITRONELLOL (106-22-9)	
LC50 - Fish [1]	14.66 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	17.48 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	2.4 mg/l Test organisms (species):
HEXYL SALICYLATE (6259-76-3)	
EC50 - Crustacea [1]	0.357 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.61 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0.28 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
LC50 - Fish [1]	720 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	0.36 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)	
NOEC (chronic)	0.115 mg/l Test organisms (species): other:For freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex. Duration: '16 d'
TETRAHYDROLINALOOL (78-69-3)	
LC50 - Fish [1]	8.9 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	14.2 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	21.6 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
COUMARIN (91-64-5)	
LC50 - Fish [1]	1.324 mg/l Test organisms (species):
EC50 - Crustacea [1]	8.012 mg/l Test organisms (species): Daphnia sp.
EC50 96h - Algae [1]	1.452 mg/l Test organisms (species):
GERANIOL (106-24-1)	
LC50 - Fish [1]	22 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	10.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	13.1 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)	
LC50 - Fish [1]	27.8 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	59 mg/l Test organism (species) : Daphnia magna
EC50 96h - Algae [1]	88.3 mg/l Test Organism (species) : Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [2]	156.7 mg/l Test organism (species) : Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

FF- 40 DETERGENT	
Persistence and degradability	The Surfactants and Chelants used in this mixture are Biodegradable.

12.3. Bioaccumulative potential

FF- 40 DETERGENT	
Bioaccumulative potential	Not expected to Bioaccumulate.
Citric Acid (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.7 Source: ICSC

12.4. Mobility in soil

FF- 40 DETERGENT	
Additional information	soluble in water

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

12.5. Results of PBT and vPvB assessment

FF- 40 DETERGENT

This product does not contain any substances classified as PBT

This product does not contain any substances classified as vPvB.

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal of this product must comply with local and national environmental legislation.
Sewage disposal recommendations : Small volumes of use solution can be disposed of to sewage drains.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

Not applicable

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

SECTION 15: Regulatory information

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

15.1.1. EU-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 PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : Not Volatile, contains no VOC's

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

GB REACH and CLP regulations.

UK HSE EH40 Publication.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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
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

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

Abbreviations and acronyms:	
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

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.

FF- 40 DETERGENT

Safety Data Sheet

According to GB and EU REACH and CLP Regulations

Full text of H- and EUH-statements:	
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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.