

# FF-40 Detergent Portfolio



PVA Hygiene provides an innovative and sustainable method of cleaning. As the UK's leading manufacturer of water-soluble cleaning products, we cover all areas of commercial cleaning. Over 24 years, we have developed a system using pre-dosed sachets that is straightforward to implement and balances environment diligence with commercial demands. Based in the South West of England, we distribute globally.



This portfolio contains documents relating to PVA Hygiene's FF-40.

This unique formulation is contained within a PVOH or paper film that dissolves at the point of use. The sachets are dry, compact and light, they reduce storage space and transportation costs, and heavily reduce the environmental implications often associated with delivering cleaning supplies. The sachets are packed in planet friendly packaging, that can either be composted or recycled, helping you to eliminate single-use plastic from your current cleaning procedure.



#### CONTENTS:

- 1) Technical Data Sheet.
- 2) Use Solution Health and Safety Summary.
- 3) 4 Rail Approval.
- 4) Product Safety Data Sheet.



#### PRODUCT DESCRIPTION

FF-40 Detergent is a highly perfumed detergent for cleaning and refreshing hard surfaces, floors, entrance ways, lobbies etc in municipal areas. After cleaning a residual persistent fresh smell is left. Sachets contain a blend of biodegradable chelates, carbonates and biodegradable surfactants.

Sachets are supplied in the following Pack Sizes:-

Pack Size	Sachet Type	Order Code	Outer packaging
50 * 13g	Paper	PA15:50	Pouch

- Supplied in paper, water-soluble sachets within a compostable pouch.
  - Highly Perfumed.
  - Phosphate Free.
  - EDTA Free.
  - Identifiable Colour.
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#### INSTRUCTIONS FOR USE

For general cleaning, remove any gross debris from the surface, place one sachet into an empty bucket and then fill with approximately 5ltr (half bucket) of clean water. Agitate the bucket to ensure the sachet fully dissolves. Mop the area to be cleaned, remembering to regularly refresh the solution on the mop head with clean liquid. Once the area has been cleaned, remove excess liquid by dry mopping and allow to air dry. For heavy soiling two sachets may be required.


Consider using appropriate signage to identify that cleaning is in progress and floors may be wet.

This product can also be used in scrubber drier machines.

Care should be taken on unsealed wood. This product is not suitable for Perspex and Acrylic plastic and care should be taken of decorative print finishes.

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**TECHNICAL DATA SUMMARY**

Appearance	Yellow Green Powder
Odour	Fresh and Persistent
Foam	Low
pH of use solution 	9.2 -10
Storage Temperature Range	0°C to +40°C
Shelf Life of Sachet	Minimum of 2 years under normal conditions of dry storage.

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**EMERGENCY DETAILS**

For accident, emergency and health & safety information refer to the Safety Data Sheet for this product.

This product is registered with the UK National Poisons Information Service.

Office Hours Emergency Number +44 (0) 1934 862859

Outside Office Hours: - +44 (0)7967 149256 (This is for health, safety and environmental emergencies only, it is not for general enquires or ordering).

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**DISCLAIMER**

Whilst every effort is made to ensure that the information given in this product information sheet is accurate it is given without guarantee, since the conditions of use are beyond our control.

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IDENTIFICATION OF THE MATERIAL	
Product Name	FF-40 DETERGENT use solution
Main Use	Floor and Hard Surface Cleaner and Freshener.
Uses Advised Against	Not for Direct Oral Consumption Keep Out of Reach of Children Do Not Mix with other Chemicals/Detergents.
Manufacturer	PVA Hygiene, Unit 6 Havyat Business Park Havyat Road, Bristol, BS40 5PA
Telephone	+44 (0) 1934 862859

PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Liquid
Colour	Green
pH	9.2 - 10



CLASSIFICATION, PPE, FIRST AID AND DISPOSAL	
Health	In use solutions of this product have no Health Classifications
Physical	In use solutions of this product have no Physical Classifications
Environmental	In use solutions of this product have no Environmental Classifications
PPE	No PPE is mandated for this product at use strength. However, we suggest gloves for general hygiene, and because of the high pH, eye protection if a risk assessment indicates splashing to eyes is possible.
First Aid	<p><b>EYES:-</b> May cause reddening, discomfort and blurred vision Rinse with Plenty of Water.</p> <p><b>SKIN:-</b> Repeated extended contact may result in skin dryness. Use a suitable re-moisturising cream and get medical attention if symptoms persist.</p> <p><b>INHALATION:-</b> Unlikely.</p> <p><b>INGESTION:-</b> A soapy taste may be reported, together with irritation to mouth and GI Tract rinse mouth thoroughly. If concerned seek medical advice Show the label or Safety Data sheet to the Physician.</p>
Disposal	Solutions can be disposed to normal sewers and septic tanks.



## ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED.

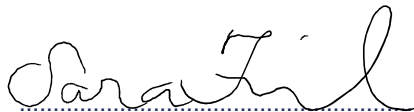
REPORT NUMBER 4RS-SF-230073-R733201

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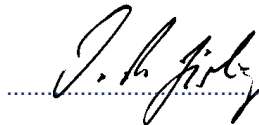
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**Issue Date:**

26<sup>th</sup> June 2023

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# ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

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REPORT REVISION	ISSUE DATE	REVISION DETAILS
INITIAL ISSUE	26 <sup>TH</sup> JUNE 2023	-

**CONDITIONS OF ISSUE OF REPORTS.**

THIS REPORT IS ISSUED IN CONFIDENCE AND SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL FROM 4-RAIL SERVICES.

**FURTHER INFORMATION.**

REQUESTS FOR ADDITIONAL INFORMATION ON THE SUBJECT OF THIS REPORT OR OTHER QUERIES SHOULD BE ADDRESSED TO THE AUTHOR.

# ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

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# ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

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## 1.0 INTRODUCTION

4-RAIL Services Limited was requested by Pam Cullinane of PVA Hygiene Limited to carry out an independent assessment of *FF-40*, a product currently being manufactured and marketed by PVA Hygiene Limited. *FF-40* is primarily intended for light duty cleaning in public areas, including the interior of rolling stock. It is intended to provide a long lasting fresh fragranced atmosphere on completion.

The assessment was carried out to reflect the requirement for this type of chemical product in the cleaning of rail vehicles within the railway depot environment, via manual application methods. It carried out in accordance with 4-RAIL Services Limited – Test Procedure 4RS-M133 Issue 3 – Protocol for the Assessment of Cleaning and Graffiti Removal Chemicals for Use on Rolling Stock.

The product was thus assessed in terms of the following facets and criteria:

- Health Hazard & Environmental Assessment and comment on product formulation.\*
- Surface Compatibility Test in which the suitability of the product for use on some typical interior materials of rolling stock was evaluated.
- Corrosion tests in which an aluminium coupon was immersed in the undiluted product.
- Product Efficacy Test in which the ability of the product to remove standard soiling agents from some typical exterior materials of rolling stock was evaluated.
- An assessment of the quality systems employed by the supplier.

\* - It should be noted that 4-RAIL Services Limited do not request or issue reports containing confidential formulation details from a manufacturer but instead rely on the manufacturer's integrity and statutory obligations in terms of the provision of comprehensive and correct information relating to the hazards associated with their products. Responsibility will not be accepted by 4-RAIL Services Limited for false or misleading information presented by product suppliers for review.

## 2.0 HEALTH HAZARD AND ENVIRONMENTAL ASSESSMENT

### 2.1 *Composition*

*FF-40* is a yellow/green powder which is supplied in individual paper sachets. The paper sachets are then diluted in water for use. The manufacturer has advised that the pH of the generated solution is between 9.2 and 10. It comprises a blend of the following declared ingredients:

- *Sodium carbonate,*
- *Citric acid,*
- *β-Alanine, N-(2-carboxyethyl)-,N-coco alkyl derivatives, di sodium salt,*
- *Fragrances.*

This part of the assessment included the dispatch of a questionnaire to the supplier, which, on completion by the client, established the presence of any detectable quantities of a number of ingredients. The materials listed in this questionnaire have been included either for health and safety or environmental reasons, or because their presence would, in the opinion of 4-RAIL Services Limited, be detrimental to the product's performance. No additional ingredients were declared.

### 2.2 *Application*

*FF-40* is recommended for light duty cleaning in public areas, including the removal of general soiling from the interior parts of rolling stock. It is also intended to leave behind a persistent fresh smell.

PVA Hygiene recommends diluting 1 sachet of *FF-40* into 5 litres of water. The sachet is placed into an appropriate bucket and 5 litres of warm water should then be added. The bucket is then agitated to ensure the contents fully dissolve. As the product dissolves effervescence should be noted where the sodium carbonate and citric acid react together, the resulting solution is then used.

A contact time of 5-10 minutes should prove sufficient for the removal of general soiling. Furthermore, it is recommended that the surface is agitated with soft brushes or cloths (including reusable micro-fibre cloths), to loosen tenacious soiling matter. Surfaces should always be rinsed with clean water to remove residual chemical and soiling matter. For heavily soiled areas two sachets can be used.

PVA Hygiene also recommend the in-use solution of *FF-40* for use through scrubber driers.



# ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

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## 2.3 Hazard Identification

Under the CLP Regulations, *FF-40* in its supplied powder form carries the following classifications:

Hazard Pictogram(s): GHS07



Signal Word: Warning

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

Precautionary Statements: P102: Keep out of reach of children  
P264: Wash skin thoroughly after handling  
P272: Contaminated work clothing should not be allowed out of the workplace  
P280: Wear eye 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 so. Continue rinsing  
P333+P313: If skin irritation persists get medical 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 regulations.

It should be noted that the above information applies to the solid powder present in the sachets prior to use. When the product has been mixed with water, the in-use solution has no hazard statements associated with it. It should also be noted that P501 will not apply as the sachet is dissolved in water alongside its contents, with no container to dispose of afterwards.

However, it is recommended that the following precautions are observed when using the product.

- Wear suitable eye protection to protect against the possibility of splashes contacting eyes or face.
- Wear suitable chemical resistant gloves to protect the hands and lower arms.
- Overalls and rubber boots should be worn to protect the rest of the body.

## 2.4 Environmental Conditions

Manufacturer's literature indicates that the pH of the in-use solution of *FF-40* is between 9.2 and 10. Since the Consent to Discharge Effluents from many railway depots is frequently set within the range pH 6 – 11 it will not be necessary to neutralise any effluents resulting from the use of the product.

The in-use solution of *FF-40* should only be disposed of to the foul sewer in the course of its use, it should never be discharged to surface drains or any surface watercourses. It should be ensured that compliance with the local trade effluent discharge consent is maintained and depot managers should check with the local water authority to establish the precise parameters set for the site concerned before commencing use of the product.

Unused sachets of *FF-40* should be disposed of using a reputable waste disposal contractor.

# ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

## 2.5 Technical Comparison to Alternatives

A large number of products are available in the chemicals market for the cleaning of hard interior surfaces of rolling stock and for station cleaning activities. Most products are based on a blend of surfactants, sometimes with a small amount of alkali or solvent present to improve grease removal efficacy. Based on this FF-40 is therefore typical of its class.

## 2.6 Acceptability

FF-40 satisfactorily meets the requirements of the Health Hazard and Environmental Assessment.

## 3.0 SURFACE COMPATIBILITY ASSESSMENT

### 3.1 Method of Assessment

The assessment was conducted as outlined in with 4-RAIL Services Limited – Test Procedure 4RS-M133 Issue 3, Section 5. The standard test involved the test surfaces being exposed to the undiluted products for a 72-hour period. The test surfaces were subsequently rinsed with clean water, dried and inspected for colour/gloss change and a pencil hardness test performed to evaluate whether any softening had occurred.

### 3.2 Test Surface and Results

PRODUCT NAME	TEST SURFACE	SURFACE COMPATABILITY
FF-40	Aluminium panel coated with composite epoxy/polyurethane train paint	No Damage
	Aluminium panel with train interior polyester powder coating	No Damage

### 3.3 Acceptability

4-RAIL Services Limited conclude that FF-40 is compatible painted panels found on the interior and exterior of rolling stock.

## 4.0 CORROSION ASSESSMENT

### 4.1 Method of Assessment

Generally a preweighed aluminium coupon (Grade 6063) is placed into an undiluted sample of the product under test. The neat product is used because 4-RAIL Services Limited have encountered situations in which aluminium corrosion has occurred where cleaning agents have been able to concentrate on train structures e.g. behind window seals and in door mechanisms. However for FF-40 as the product is in powder form the product was tested at the dilution recommended by PVA Hygiene Limited.

After 168 hours, the coupon was rinsed with water, dried and re-weighed. Any weight change was calculated as mg loss per square centimetre of aluminium and the result compared to the acceptability criterion.

### 4.2 Results

PRODUCT NAME	WEIGHT CHANGE RECORDED / (MG/CM <sup>2</sup> )	ACCEPTABILITY CRITERION / (MG/CM <sup>2</sup> )	COMMENT
FF-40	-0.01	± 3.0	PASS

### 4.3 Acceptability

On the basis of this laboratory test, FF-40 met the acceptability requirements of the Corrosion Assessment.

# ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

## 5.0 EFFICACY ASSESSMENT

### 5.1 Method of Assessment

The assessment was conducted as per 4-RAIL Services Limited – Test Procedure 4RS- M133 Issue 3, Section 6. This involved standard soiling agents being applied to the test surface and, after it had been in contact with the surface for 72 hours, removal was attempted using the product diluted according to manufacturer's instructions. The removal method has been standardised and assessed the efficacy of the chemical product in removing the soiling agent and the amount of physical agitation required to effect removal.

### 5.2 Results

PRODUCT NAME	TEST SURFACE	PRODUCT DILUTION	SOILING AGENT	CLEANING EFFICACY
FF-40	Aluminium panel coated with composite epoxy/polyurethane train paint	one sachet per 5 litres	Track grease and tunnel dust paste	Good chemical action alone, some agitation needed to effect complete removal
	Aluminium panel with train interior polyester powder coating	one sachet per 5 litres	Track grease and tunnel dust paste	Good chemical action alone, some agitation needed to effect complete removal

### 5.3 Acceptability

On the basis of this laboratory test, *FF-40* was found to perform satisfactorily and consequently passed the product efficacy test.

## 6.0 SUPPLIER QUALITY ASSESSMENT

### 6.1 Method of Assessment

The majority of reputable manufacturers and distributors within the chemicals industry have demonstrable procedures in place for ensuring quality and traceability. It is widely considered within the rail industry that cleaning staff should only use chemical products from suppliers, which employ the latest industry standards for quality.

As a consequence, 4-RAIL Services Limited – Test Procedure 4RS-M133, includes the dispatch of a Supplier Quality Questionnaire to, and completion by, the chemical supplier.

### 6.2 Result

The resulting answers from the questionnaire indicate that PVA Hygiene Limited to be a reputable supplier with good quality systems in place. End users can be confident that products received from the company should be of a consistent and reproducible quality.

PVA Hygiene Limited therefore met the requirements of the Supplier Quality Assessment.

## 7.0 CONCLUSIONS

The assessment has demonstrated that *FF-40* has been satisfactorily formulated by PVA Hygiene Limited. The raw materials chosen are generally giving rise to the lowest possible health hazards. This conclusion is made with the caveat that the use of the product on rolling stock should be considered carefully by the end user.

This conclusion is equally applicable to rolling stock of London Underground Limited, the UK Train Operating Companies and the main UK train builders operating maintenance contracts.

This recommendation is made with the following caveats:

- It may be necessary for rail companies to assess the compatibility and efficacy characteristics on different types of rolling stock and other paint coatings by carrying out further depot trials.
- Specific final approvals for use of products can only be made by the regulating departments of the rail service operating company concerned.

## ROLLING STOCK PROTOCOL ASSESSMENT OF 'FF-40', SUPPLIED BY PVA HYGIENE LIMITED

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- End users are always advised to follow the manufacturer's instructions and guidance provided on product label and Safety Data Sheets. Additionally, it is always necessary to perform a COSHH assessment for the specific activities being undertaken using the products.
- It is strongly recommended that end-users always request Certificates of Analysis or Certificates of Conformity for each batch of product received and maintain a stock control file with this information included. This will assist the end-user and PVA Hygiene Limited with setting up adequate audit trails from supply to use.

### 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](mailto: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
$\beta$ -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.



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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

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##### 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.

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### 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.

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### 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

#### $\beta$ -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

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<b>GERANIOL (106-24-1)</b>	
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
<b>3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)</b>	
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.
<b>GERANIOL (106-24-1)</b>	
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
<b>Citric Acid (77-92-9)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
<b>CITRONELLOL (106-22-9)</b>	
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)
<b>HEXYL SALICYLATE (6259-76-3)</b>	
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.
<b>TETRAHYDROLINALOOL (78-69-3)</b>	
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
<b>GERANIOL (106-24-1)</b>	
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)
<b>3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)</b>	
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

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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 <sup>2</sup> /s
TETRAHYDROLINALOOL (78-69-3)	
Viscosity, kinematic	13.393 mm <sup>2</sup> /s
3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)	
Viscosity, kinematic	5.192 mm <sup>2</sup> /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)

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<b>(R)-p-mentha-1,8-diene; d-limonene (5989-27-5)</b>	
NOEC (chronic)	0.115 mg/l Test organisms (species): other:For freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex. Duration: '16 d'
<b>TETRAHYDROLINALOOL (78-69-3)</b>	
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)
<b>COUMARIN (91-64-5)</b>	
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):
<b>GERANIOL (106-24-1)</b>	
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)
<b>3,7-Dimethylocta-1,6-dien-3-ol (78-70-6)</b>	
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

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

### 12.3. Bioaccumulative potential

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

### 12.4. Mobility in soil

<b>FF- 40 DETERGENT</b>	
Additional information	soluble in water

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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
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
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

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## 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



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## Safety Data Sheet

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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.

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## Safety Data Sheet

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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.