

HR S1 Hard Surface Cleaner Concentrate C886

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: HR S1 Hard Surface Cleaner Concentrate
C886

Other means of identification:

SHC001/01

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

Relevant uses: Multiuse cleaner; carpet cleaner; fitted carpet cleaner. For professional users/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Arrow Solutions
Ground Floor, 71 Lower Baggot Street,
D02 P593, Dublin - Ireland
Phone: +44 1283 221044
sales@arrowchem.com
www.arrowchem.com

1.4 Emergency telephone number: +44 (0) 777 8505 330 (24 hrs)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation:

Classification of this product has been carried out in accordance with GB CLP Regulation.

Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

GB CLP Regulation:

Danger



Hazard statements:

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

Precautionary statements:

P273: Avoid release to the environment.

P280: Wear protective gloves/eye protection.

P302+P352: IF ON SKIN: Wash with plenty of soap and 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.

P310: Immediately call a POISON CENTER/doctor.

P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.

Supplementary information:

EUH208: Contains d-limonene. May produce an allergic reaction.

Substances that contribute to the classification

Isotridecanol, ethoxylated (5 mol EO) (CAS: 69011-36-5)

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture based on cationic and non-ionic surfactants

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 111905-53-4	Alcohols, C13-15-branched and linear, butoxylated ethoxylated Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Irrit. 2: H319 - Warning	3 - <10 %
CAS: 69011-36-5	Isotridecanol, ethoxylated (5 mol EO) Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	3 - <10 %
CAS: 24938-91-8	Polyoxyethylene tridecyl ether (C13,8 EO) Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger	3 - <10 %
CAS: 97862-59-4	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	3 - <10 %
CAS: 68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides Acute Tox. 4: H302+H312; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Skin Corr. 1B: H314 - Danger	3 - <10 %
CAS: 5989-27-5	d-limonene Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	<1 %
CAS: 84-66-2	Diethyl phthalate	<1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Alcohols, C13-15-branched and linear, butoxylated ethoxylated CAS: 111905-53-4	LD50 oral	301 mg/kg	
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1	LD50 oral	Not relevant	
	LD50 dermal	1100 mg/kg (ATEI)	Rat
	LC50 inhalation	Not relevant	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 4: FIRST AID MEASURES (continued)**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Not relevant

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media:****Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 7: HANDLING AND STORAGE (continued)

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 4 °C

Maximum Temp.: 40 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits	
	WEL (8h)	WEL (15 min)
Diethyl phthalate CAS: 84-66-2		5 mg/m ³ 10 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Isotridecanol, ethoxylated (5 mol EO) CAS: 69011-36-5 EC: 500-241-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	2080 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	294 mg/m ³	Not relevant
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4 EC: 931-296-8	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	12.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	44 mg/m ³	Not relevant
d-limonene CAS: 5989-27-5 EC: 227-813-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	9.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	66.7 mg/m ³	Not relevant
Diethyl phthalate CAS: 84-66-2 EC: 201-550-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	15 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	10.56 mg/m ³	Not relevant

DNEL (General population):

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Isotridecanol, ethoxylated (5 mol EO) CAS: 69011-36-5 EC: 500-241-6	Oral	Not relevant	Not relevant	25 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	1250 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	87 mg/m ³	Not relevant
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4 EC: 931-296-8	Oral	Not relevant	Not relevant	7.5 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	7.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	13.04 mg/m ³	Not relevant
d-limonene CAS: 5989-27-5 EC: 227-813-5	Oral	Not relevant	Not relevant	4.8 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	4.8 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	16.6 mg/m ³	Not relevant
Diethyl phthalate CAS: 84-66-2 EC: 201-550-6	Oral	Not relevant	Not relevant	0.75 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	7.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2.6 mg/m ³	Not relevant

PNEC:

Identification				
Isotridecanol, ethoxylated (5 mol EO) CAS: 69011-36-5 EC: 500-241-6	STP	1.4 mg/L	Fresh water	0.074 mg/L
	Soil	0.1 mg/kg	Marine water	0.007 mg/L
	Intermittent	0.015 mg/L	Sediment (Fresh water)	0.604 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0.06 mg/kg
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4 EC: 931-296-8	STP	3000 mg/L	Fresh water	0.013 mg/L
	Soil	0.85 mg/kg	Marine water	0.001 mg/L
	Intermittent	Not relevant	Sediment (Fresh water)	11.1 mg/kg
	Oral	Not relevant	Sediment (Marine water)	1.11 mg/kg
d-limonene CAS: 5989-27-5 EC: 227-813-5	STP	1.8 mg/L	Fresh water	0.014 mg/L
	Soil	0.763 mg/kg	Marine water	0.0014 mg/L
	Intermittent	Not relevant	Sediment (Fresh water)	3.85 mg/kg
	Oral	0.133 g/kg	Sediment (Marine water)	0.385 mg/kg
Diethyl phthalate CAS: 84-66-2 EC: 201-550-6	STP	2 mg/L	Fresh water	0.012 mg/L
	Soil	0.137 mg/kg	Marine water	0.0012 mg/L
	Intermittent	0.12 mg/L	Sediment (Fresh water)	0.137 mg/kg
	Oral	0.033 g/kg	Sediment (Marine water)	0.0137 mg/kg

8.2 Exposure controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.062 mm, Conditions of use: Normal)	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

- CONTINUED ON NEXT PAGE -


**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)



SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C: Liquid
 Appearance: Transparent
 Colour: Blue
 Odour: Fruity
 Odour threshold: Not relevant *

Volatility:

Boiling point at atmospheric pressure: 101 °C
 Vapour pressure at 20 °C: 2346 Pa
 Vapour pressure at 50 °C: 12359.4 Pa (12.36 kPa)
 Evaporation rate at 20 °C: Not relevant *

Product description:

Density at 20 °C: 1043 kg/m³
 Relative density at 20 °C: 1.043
 Dynamic viscosity at 20 °C: Not relevant *
 Kinematic viscosity at 20 °C: Not relevant *
 Kinematic viscosity at 40 °C: Not relevant *
 Concentration: Not relevant *
 pH: 4 - 5 (at 100 %)

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Highly water-soluble
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	225 °C
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Non-applicable
-----------------------------	----------------

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

Other safety characteristics:

Surface tension at 20 °C:	Not relevant *
Refraction index:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Product-specific toxicological information:

Acute toxicity		Genus
LD50 oral	3293 mg/kg	

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1	LD50 oral	344 mg/kg	Rat
	LD50 dermal	1100 mg/kg (ATEi)	Rat
	LC50 inhalation		
Alcohols, C13-15-branched and linear, butoxylated ethoxylated CAS: 111905-53-4	LD50 oral	301 mg/kg	
	LD50 dermal		
	LC50 inhalation		

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4	2335 mg/kg		Rat
d-limonene CAS: 5989-27-5	4400 mg/kg		Rat
	>5000 mg/kg		Rabbit

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Very toxic to aquatic life.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
Alcohols, C13-15-branched and linear, butoxylated ethoxylated CAS: 111905-53-4	>10 - 100 mg/L (96 h)			Fish
	>10 - 100 mg/L (48 h)			Crustacean
	>10 - 100 mg/L (72 h)			Algae
Isotridecanol, ethoxylated (5 mol EO) CAS: 69011-36-5	>10 - 100 mg/L (96 h)			Fish
	>10 - 100 mg/L (48 h)			Crustacean
	>10 - 100 mg/L (72 h)			Algae
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4	1.9 mg/L (96 h)		N/A	Fish
	6.5 mg/L (48 h)		Daphnia magna	Crustacean
	4.66 mg/L (72 h)		Desmodemus subspicatus	Algae
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1	>0.1 - 1 mg/L (96 h)			Fish
	>0.1 - 1 mg/L (48 h)			Crustacean
	>0.1 - 1 mg/L (72 h)			Algae
d-limonene CAS: 5989-27-5	>0.1 - 1 mg/L (96 h)			Fish
	>0.1 - 1 mg/L (48 h)			Crustacean
	>0.1 - 1 mg/L (72 h)			Algae
Diethyl phthalate CAS: 84-66-2	61 mg/L (48 h)		Leuciscus idus	Fish
	52 mg/L (48 h)		Daphnia magna	Crustacean
	Not relevant			

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	NOEC		
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4	0.135 mg/L		Oncorhynchus mykiss	Fish
	0.32 mg/L		Daphnia magna	Crustacean
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1	Not relevant			
	0.025 mg/L		Daphnia magna	Crustacean
Diethyl phthalate CAS: 84-66-2	5 mg/L		Cyprinus carpio	Fish
	25 mg/L		Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	PeriodoTesteoContenido
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts CAS: 97862-59-4	Not relevant		10 mg/L	
	Not relevant		28 days	cellPeriodoTesteoContenido
	Not relevant		% Biodegradable	87 %

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
d-limonene CAS: 5989-27-5	BOD5	Not relevant	Concentration	10 mg/L
	COD	Not relevant	28 days	cellPeriodoTesteoContenido
	BOD5/COD	Not relevant	% Biodegradable	71.4 %
Diethyl phthalate CAS: 84-66-2	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	28 days	cellPeriodoTesteoContenido
	BOD5/COD	Not relevant	% Biodegradable	88 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
	Parameter	Value
d-limonene CAS: 5989-27-5	BCF	660
	Pow Log	4.83
	Potential	High
Diethyl phthalate CAS: 84-66-2	BCF	117
	Pow Log	2.07
	Potential	High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Parameter	Value	Parameter	Value
d-limonene CAS: 5989-27-5	Koc	6324	Henry	Not relevant
	Conclusion	Immobile	Dry soil	Not relevant
	Surface tension	2.675E-2 N/m (25 °C)	Moist soil	Not relevant
Diethyl phthalate CAS: 84-66-2	Koc	Not relevant	Henry	6.181E-2 Pa·m ³ /mol
	Conclusion	Not relevant	Dry soil	No
	Surface tension	3.699E-2 N/m (25 °C)	Moist soil	No

Highly water-soluble

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
20 01 29*	detergents containing hazardous substances	Hazardous

Type of waste:

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 14: TRANSPORT INFORMATION (continued)

With regard to ADR 2023 and RID 2023:



- 14.1 UN number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (P-mentha-1,4(8)-diene; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)
- 14.3 Transport hazard class(es):** 9
Labels: 9
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
Tunnel restriction code: -
Physico-Chemical properties: see section 9
Limited quantities: 5 L
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:



- 14.1 UN number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (P-mentha-1,4(8)-diene; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)
- 14.3 Transport hazard class(es):** 9
Labels: 9
- 14.4 Packing group:** III
- 14.5 Marine pollutant:** Yes
- 14.6 Special precautions for user**
Special regulations: 335, 969, 274
EmS Codes: F-A, S-F
Physico-Chemical properties: see section 9
Limited quantities: 5 L
Segregation group: Not relevant
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:



- 14.1 UN number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (P-mentha-1,4(8)-diene; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)
- 14.3 Transport hazard class(es):** 9
Labels: 9
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
Physico-Chemical properties: see section 9
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Not relevant

SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 15: REGULATORY INFORMATION (continued)

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

The Detergents (Amendment) (EU Exit) Regulations:

In accordance with this regulation the product complies with the following:

The tensoactives contained in this mixture comply with the biodegradability criteria stipulated in The Detergents (Amendment) (EU Exit) Regulations. The information to prove this is available to the relevant authorities of the Member States and will be shown to them by direct request or the request of a detergent manufacturer.

Labelling for contents:

Component	Concentration interval
Non-ionic surfactants	15 ≤ % (w/w) < 30
Amphoteric surfactants	5 ≤ % (w/w) < 15
Cationic surfactants	% (w/w) < 5
perfumes	

Allergenic fragrances: d-limonene (LIMONENE), Pin-2(10)-ene (BETA-PINENES), Pin-2(3)-ene (PINENE), Terpineol (TERPINEOL).

The Control of Major Accident Hazards Regulations 2015:

Section	Description	Lower-tier requirements	Upper-tier requirements
E1	ENVIRONMENTAL HAZARDS	100	200

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

- The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
- The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
- Control of Substances Hazardous to Health Regulations 2002 (as amended)
- EH40/2005 Workplace exposure limits.
- COSHH-SR24 Storing chemical products (small scale).
- COSHH-SR2 Diluting chemical concentrates.
- COSHH-SR4 Manual cleaning and disinfecting surfaces.
- The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019: SCHEDULE 34 - Amendment of Regulation (EC) No 1223/2009 and related amendments.
- The Detergents (Amendment) (EU Exit) Regulations 2020.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

- H318: Causes serious eye damage.
- H411: Toxic to aquatic life with long lasting effects.
- H315: Causes skin irritation.
- H400: Very toxic to aquatic life.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation:

- CONTINUED ON NEXT PAGE -

**HR S1 Hard Surface Cleaner Concentrate
C886**

Date of compilation: 11/01/2024

Revised: 27/02/2024

Version: 2 (Replaced 1)

SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.

Classification procedure:

Eye Dam. 1: Calculation method
Aquatic Chronic 2: Calculation method
Skin Irrit. 2: Calculation method
Aquatic Acute 1: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -