

SAFETY DATA SHEET

QUANTUM DASH CLEANER

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

1.1. Product identifier

Product name	QUANTUM DASH CLEANER
Product number	ZGBDASHCLEN05L, ZGBDASHCLEN750, ZGB DASH CLEAN SAM
Internal identification	B20952, 30057, 30065, 30068

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

Identified uses	Car maintenance product. Automotive Polish
Uses advised against	This product is not recommended for any industrial, professional or consumer use other than the identified uses stated above.

1.3. Details of the supplier of the safety data sheet

Supplier	Volkswagen Group United Kingdom Ltd Yeomans Drive Blakelands Milton Keynes MK14 5AN 01908 601601
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1.4. Emergency telephone number

Emergency telephone	Tel: +44 1604 701111 (Office Hours Monday - Friday (0900 Hrs - 1700 Hrs))
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Eye Irrit. 2 - H319
Environmental hazards	Not Classified

Human health The product contains small amounts of organic solvents. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Irritating to eyes.

Environmental The product is not expected to be hazardous to the environment.

Physicochemical When handled correctly, undamaged units represent no danger.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements EUH208 Contains 1,2-BENZISOTHIAZOL-3(2H)-ONE. May produce an allergic reaction.
H319 Causes serious eye irritation.

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Precautionary statements	<p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P102 Keep out of reach of children.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P280 Wear protective clothing, gloves, eye and face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Detergent labelling	15 - < 30% aliphatic hydrocarbons, < 5% non-ionic surfactants, < 5% perfumes, Contains BENZISOTHIAZOLINONE

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS	10-30%
CAS number: —	EC number: 927-285-2
	REACH registration number: 01-2119480162-45-XXXX
Classification Asp. Tox. 1 - H304	
DIMETHICONE	5-10%
CAS number: 63148-62-9	
Classification Not Classified	
C9-11 ALCOHOL ETHOXYLATE 6.5MEO	1-5%
CAS number: 68439-46-3	
Classification Acute Tox. 4 - H302 Eye Dam. 1 - H318	
PROPYLENE GLYCOL	<1%
CAS number: 57-55-6	EC number: 200-338-0
	REACH registration number: 01-2119456809-23-XXXX
Classification Not Classified	

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BENZALDEHYDE <1%		
CAS number: 100-52-7	EC number: 202-860-4	REACH registration number: 01-2119455540-44-XXXX
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Irrit. 2 - H319 STOT SE 3 - H335		
1,2-BENZISOTHIAZOL-3(2H)-ONE <1%		
CAS number: 2634-33-5	EC number: 220-120-9	M factor (Acute) = 1
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Acute 1 - H400		
SODIUM METABISULPHITE <1%		
CAS number: 7681-57-4	EC number: 231-673-0	REACH registration number: 01-2119531326-45-XXXX
Classification Acute Tox. 4 - H302 Eye Dam. 1 - H318		
POTASSIUM HYDROXIDE <1%		
CAS number: 1310-58-3	EC number: 215-181-3	REACH registration number: 01-2119487136-33-XXXX
Classification Met. Corr. 1 - H290 Acute Tox. 4 - H302 Skin Corr. 1A - H314 Eye Dam. 1 - H318		
SODIUM HYDROXIDE <1%		
CAS number: 1310-73-2	EC number: 215-185-5	REACH registration number: 01-2119457892-27-XXXX
Classification Met. Corr. 1 - H290 Skin Corr. 1A - H314 Eye Dam. 1 - H318		

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ETHYL ACETATE		<1%
CAS number: 141-78-6	EC number: 205-500-4	REACH registration number: 01-2119475103-46-XXXX
Classification		
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336		
Heliotropine		<1%
CAS number: 120-57-0	EC number: 204-409-7	
Classification		
Skin Sens. 1B - H317		
UNDECA-1,4-LACTONE		<1%
CAS number: 104-67-6	EC number: 203-225-4	
Classification		
Aquatic Chronic 3 - H412		
ACRYLIC ACID		<1%
CAS number: 79-10-7	EC number: 201-177-9	REACH registration number: 01-2119452449-31-XXXX
M factor (Acute) = 1		
Classification		
Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 Aquatic Acute 1 - H400		
Ethyl methylphenylglycidate		<1%
CAS number: 77-83-8	EC number: 201-061-8	
Classification		
Skin Sens. 1B - H317 Aquatic Chronic 2 - H411		

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information If in doubt, get medical attention promptly.

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Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. For personal protection, see Section 8.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	This is unlikely to occur but symptoms similar to those of ingestion may develop. Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. A single exposure may cause the following adverse effects: Nausea, vomiting. Central nervous system depression.
Skin contact	Allergic rash. May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Irritating to eyes. A single exposure may cause the following adverse effects: Redness. Profuse watering of the eyes.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Nitrogen oxides.

5.3. Advice for firefighters

Protective actions during firefighting	Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
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Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid contact with eyes and prolonged skin contact. For personal protection, see Section 8. Take care as floors and other surfaces may become slippery.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if safe to do so. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Large Spillages: Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. For waste disposal, see Section 13. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep out of the reach of children. Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid spilling. Keep container tightly sealed when not in use. Avoid inhalation of vapours. Avoid contact with skin and eyes. Provide adequate ventilation. Use approved respirator if air contamination is above an acceptable level.

Advice on general occupational hygiene Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Store in tightly-closed, original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

Storage class Chemical storage.

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7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

DIMETHICONE

No exposure limit value known.

PROPYLENE GLYCOL

Long-term exposure limit (8-hour TWA): WEL 474 mg/m³ 150 ppm particulate vapour

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

BENZALDEHYDE

No exposure limit value known.

SODIUM METABISULPHITE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

POTASSIUM HYDROXIDE

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2 mg/m³

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³

ETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm

Short-term exposure limit (15-minute): WEL 400 ppm

Heliotropine

No exposure limit value known.

UNDECA-1,4-LACTONE

No exposure limit value known.

ACRYLIC ACID

Acrylic Acid Workplace Exposure Limit in Denmark, Finland, France, Ireland, Portugal and Spain is: TWA - 8 hours: 2ppm.

Acrylic Acid Workplace Exposure Limit in Estonia, Greece, Norway, Sweden, Switzerland and Germany is: TWA - 8 hours: 10ppm.

Ethyl methylphenylglycidate

No exposure limit value known.

WEL = Workplace Exposure Limit

2-AMINO-2-METHYLPROPANOL (CAS: 124-68-5)

DNEL

Workers - Inhalation; Long term systemic effects: 6.5 mg/m³

Workers - Dermal; Long term systemic effects: 7.3 mg/kg bw/day

General population - Inhalation; Long term systemic effects: 1.6 mg/m³

General population - Dermal; Long term systemic effects: 37 mg/kg bw/day

General population - Oral; Long term systemic effects: 0.46 mg/kg bw/day

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- PNEC**
- Fresh water; 0.188 mg/l
 - Marine water; 0.0188 mg/l
 - Intermittent release; 1.88 mg/l
 - STP; 10 mg/l
 - Sediment (Freshwater); 0.71 mg/kg sediment dw
 - Sediment (Marinewater); 0.071 mg/kg sediment dw
 - Soil; 0.03 mg/kg soil dw

PROPYLENE GLYCOL (CAS: 57-55-6)

- DNEL**
- Industry - Inhalation; Long term systemic effects: 168 mg/m³
 - Industry - Inhalation; Long term local effects: 10 mg/m³
 - Consumer - Inhalation; Long term systemic effects: 50 mg/m³
 - Consumer - Inhalation; Long term local effects: 10 mg/m³

- PNEC**
- Fresh water; 260 mg/l
 - Marine water; 26 mg/l
 - STP; 20000 mg/kg
 - Sediment (Freshwater); 572 mg/kg
 - Sediment (Marinewater); 57.2 mg/kg
 - Soil; 50 mg/kg
 - Intermittent release; 183 mg/l

BENZALDEHYDE (CAS: 100-52-7)

- DNEL**
- Workers - Inhalation; Long term systemic effects, local effects: 9.8 mg/m³
 - Workers - Dermal; Long term systemic effects: 1.14 mg/kg bw/day
 - General population - Inhalation; Long term systemic effects, local effects: 4.9 mg/m³
 - General population - Dermal, Oral; Long term systemic effects: 0.67 mg/kg bw/day

- PNEC**
- Fresh water; 0.0024 mg/l
 - Marine water; 0.00024 mg/l
 - Intermittent release; 0.0107 mg/l
 - STP; 7.59 mg/l
 - Sediment (Freshwater); 0.0221 mg/kg sediment dw
 - Sediment (Marinewater); 0.00221 mg/kg sediment dw
 - Soil; 0.00301

POTASSIUM HYDROXIDE (CAS: 1310-58-3)

- DNEL**
- Workers, General population - Inhalation; Long term local effects: 1 mg/m³

SODIUM METABISULPHITE (CAS: 7681-57-4)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 225 mg/m³
 - General population - Inhalation; Long term systemic effects: 66 mg/m³
 - General population - Oral; Long term systemic effects: 8.6 mg/kg bw/day

- PNEC**
- Fresh water; 1 mg/l
 - Marine water; 0.1 mg/l
 - STP; 75.4 mg/l

SODIUM HYDROXIDE (CAS: 1310-73-2)

- DNEL**
- Consumer - Inhalation; local effects: 1 mg/m³
 - Industry - Inhalation; Long term local effects: 1 mg/m³

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ETHYL ACETATE (CAS: 141-78-6)

DNEL	Workers - Inhalation; Long term systemic effects: 734 mg/m ³
	Workers - Inhalation; Short term Acute: 1468 mg/m ³
	Workers - Inhalation; Long term local effects: 734 mg/m ³
	Workers - Inhalation; Short term Acute: 1468 mg/m ³
	Workers - Dermal; Long term systemic effects: 63 mg/kg bw/day
	General population - Inhalation; Long term systemic effects: 367 mg/m ³
	General population - Inhalation; Short term Acute: 734 mg/m ³
	General population - Inhalation; Long term local effects: 367 mg/m ³
	General population - Inhalation; Short term Acute: 734 mg/m ³
	General population - Dermal; Long term systemic effects: 37 mg/kg bw/day
General population - Oral; Long term systemic effects: 4.5 mg/kg bw/day	
PNEC	- Fresh water; 0.24 mg/l
	- Marine water; 0.024 mg/l
	- Intermittent release; 1.65 mg/l
	- Sediment (Freshwater); 1.15 mg/kg sediment dw
	- Sediment (Marinewater); 0.115 mg/kg sediment dw
	- Soil; 0.148 mg/kg soil dw

d-LIMONENE (CAS: 5989-27-5)

DNEL	Workers - Inhalation; Long term systemic effects: 33.3 mg/m ³
	Workers - Dermal; Short term local effects, Acute: 0.222 mg/cm ²
	General population - Inhalation; Long term systemic effects: 8.33 mg/m ³
	General population - Dermal; Short term local effects, Acute: 0.111 mg/cm ²
	General population - Oral; Long term systemic effects: 4.76 mg/kg bw/day
PNEC	- Fresh water; 0.0054 mg/l
	- Marine water; 0.00054 mg/l
	- STP; 1.8 mg/l
	- Sediment (Freshwater); 1.32 mg/kg sediment dw
	- Marine water; 0.13 mg/kg sediment dw
	- Soil; 0.262 mg/kg soil dw

Heliotropine (CAS: 120-57-0)

DNEL	Workers - Inhalation; Long term systemic effects: 3.5 mg/m ³
	Workers - Dermal; Long term systemic effects: 0.5 mg/kg bw/day
	General population - Inhalation; Long term systemic effects: 0.87 mg/m ³
	General population - Dermal, Oral; Long term systemic effects: 0.25 mg/kg bw/day
PNEC	- Fresh water; 0.0025 mg/l
	- Marine water; 0.00025 mg/l
	- Intermittent release; 0.025 mg/l
	- STP; 10 mg/l
	- Soil; 0.00084 mg/kg soil dw
	- Sediment (Freshwater); 0.0119 mg/kg sediment dw
	- Sediment (Marinewater); 0.0012 mg/kg sediment dw

CITRAL (CAS: 5392-40-5)

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DNEL

Workers - Inhalation; Long term systemic effects: 9 mg/m³
 Workers - Dermal; Long term systemic effects: 1.7 mg/kg bw/day
 Workers - Dermal; Long term local effects: 0.14 mg/cm²
 General population - Inhalation; Long term systemic effects: 2.7 mg/m³
 General population - Dermal; Long term systemic effects: 1 mg/kg bw/day
 General population - Dermal; Long term local effects: 0.14 mg/cm²
 General population - Oral; Long term systemic effects: 0.6 mg/kg bw/day

PNEC

- Fresh water; 0.00678 mg/l
- Marine water; 0.000678 mg/l
- Intermittent release; 0.0678 mg/l
- STP; 1.6 mg/l
- Sediment (Freshwater); 0.125 mg/kg sediment dw
- Sediment (Marinewater); 0.0125 mg/kg sediment dw
- Soil; 0.0209 mg/kg soil dw

UNDECA-1,4-LACTONE (CAS: 104-67-6)

DNEL

Workers - Inhalation; Long term systemic effects: 19 mg/m³
 Workers - Dermal; Long term systemic effects: 5.38 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 4.68 mg/m³
 General population - Dermal, Oral; Long term systemic effects: 2.7 mg/kg bw/day

PNEC

- Fresh water; 0.00585 mg/l
- Marine water; 0.000585 mg/l
- Intermittent release; 0.0585 mg/l
- STP; 80 mg/l
- Sediment (Freshwater); 0.628 mg/kg sediment dw
- Sediment (Marinewater); 0.063 mg/kg sediment dw
- Soil; 0.122 mg/kg soil dw

ACRYLIC ACID (CAS: 79-10-7)

DNEL

Workers - Inhalation; Long term local effects: 30 mg/m³
 Workers - Inhalation; Short term Acute: 30 mg/m³
 Workers - Dermal; Short term Acute, local effects: 1 mg/cm²
 General population - Inhalation; Long term local effects: 3.6 mg/m³
 General population - Inhalation; Short term Acute: 3.6 mg/m³
 General population - Dermal; Short term local effects: 1 mg/cm²

PNEC

- Fresh water; 0.003 mg/l
- Marine water; 0.0003 mg/l
- Intermittent release; 0.0013 mg/l
- STP; 0.9 mg/l
- Sediment (Freshwater); 0.0236 mg/kg sediment dw
- Sediment (Marinewater); 0.002346 mg/kg sediment dw
- Soil; 1 mg/kg soil dw

Ethyl methylphenylglycidate (CAS: 77-83-8)

DNEL

Workers - Inhalation; Long term systemic effects: 2.45 mg/m³
 Workers - Dermal; Long term systemic effects: 0.7 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 0.61 mg/m³
 General population - Dermal, Oral; Long term systemic effects: 0.35 mg/kg bw/day

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PNEC

- Fresh water; 0.0084 mg/l
- Marine water; 0.0084 mg/l
- Intermittent release; 0.084 mg/l
- STP; 10 mg/l
- Sediment (Freshwater); 0.214 mg/kg sediment dw
- Sediment (Marinewater); 0.0214 mg/kg sediment dw
- Soil; 0.0378 mg/kg soil dw

MYRCENE (CAS: 123-35-3)

DNEL

- Workers - Inhalation; Long term systemic effects: 5.83 mg/m³
- Workers - Dermal; Long term systemic effects: 0.83 mg/kg bw/day
- General population - Inhalation; Long term systemic effects: 1.25 mg/m³
- General population - Dermal; Long term systemic effects: 0.42 mg/kg bw/day
- General population - Oral; Long term systemic effects: 0.42 mg/kg bw/day

PNEC

- Fresh water; 0.008 mg/l
- Marine water; 0.0008 mg/l
- STP; 0.2 mg/l
- Sediment (Freshwater); 5.022 mg/kg sediment dw
- Sediment (Marinewater); 0.502 mg/kg sediment dw
- Soil; 1.015 mg/kg soil dw

3,7-DIMETHYL-1,6-OCTADIEN-3-OL (CAS: 78-70-6)

DNEL

- Workers - Inhalation; Long term systemic effects: 2.8 mg/m³
- Workers - Inhalation; Short term Acute: 16.5 mg/m³
- Workers - Dermal; Long term systemic effects: 2.5 mg/kg bw/day
- Workers - Dermal; Short term Acute: 5 mg/kg bw/day
- Workers - Dermal; Long term local effects: 15 mg/cm²
- Workers - Dermal; Short term Acute: 15 mg/cm²
- General population - Inhalation; Long term systemic effects: 0.7 mg/m³
- General population - Inhalation; Short term Acute: 4.1 mg/m³
- General population - Dermal; Long term systemic effects: 1.25 mg/kg bw/day
- General population - Dermal; Short term Acute: 2.5 mg/kg bw/day
- General population - Dermal; Long term local effects: 15 mg/cm²
- General population - Dermal; Short term Acute: 15 mg/cm²
- General population - Oral; Long term systemic effects: 0.2 mg/kg bw/day
- General population - Oral; Short term Acute: 1.2 mg/kg bw/day

PNEC

- Fresh water; 0.2 mg/l
- Marine water; 0.02 mg/l
- Intermittent release; 2 mg/l
- STP; 10 mg/l
- Sediment (Freshwater); 2.22 mg/kg sediment dw
- Sediment (Marinewater); 0.222 mg/kg sediment dw
- Soil; 0.327 mg/kg soil dw

CITRONELLOL (CAS: 106-22-9)

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DNEL	<p>Workers - Inhalation; Long term systemic effects: 161.6 mg/m³</p> <p>Workers - Inhalation; Long term local effects: 10 mg/m³</p> <p>Workers - Inhalation; Short term Acute: 10 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 327.4 mg/kg bw/day</p> <p>General population - Inhalation; Long term systemic effects: 47.8 mg/m³</p> <p>General population - Inhalation; Long term local effects: 10 mg/m³</p> <p>General population - Inhalation; Short term Acute: 10 mg/m³</p> <p>General population - Dermal; Long term systemic effects: 196.4 mg/kg bw/day</p> <p>General population - Dermal; Short term local effects, Acute: 2.950 mg/cm²</p> <p>Workers - Dermal; Short term Acute, local effects: 2.950 mg/cm²</p> <p>General population - Oral; Long term systemic effects: 13.8 mg/kg bw/day</p>
PNEC	<ul style="list-style-type: none"> - Fresh water; 0.0024 mg/l - Marine water; 0.00024 mg/l - Intermittent release; 0.024 mg/l - STP; 580 mg/l - Sediment (Freshwater); 0.0256 mg/kg sediment dw - Sediment (Marinewater); 0.00256 mg/kg sediment dw - Soil; 0.00371 mg/kg soil dw

GERANIOL (CAS: 106-24-1)

DNEL	<p>Workers - Inhalation; Long term systemic effects: 161.6 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 12.5 mg/kg bw/day</p> <p>Workers - Dermal; Long term local effects: 11.8 mg/cm²</p> <p>General population - Inhalation; Long term systemic effects: 47.8 mg/m³</p> <p>General population - Dermal; Long term systemic effects: 7.5 mg/kg bw/day</p> <p>General population - Dermal; Long term local effects: 11.8 mg/cm²</p> <p>General population - Oral; Long term systemic effects: 13.75 mg/kg bw/day</p>
PNEC	<ul style="list-style-type: none"> - Fresh water; 0.0108 mg/l - Marine water; 0.00108 mg/l - Intermittent release; 0.108 mg/l - STP; 0.7 mg/l - Sediment (Freshwater); 0.115 mg/kg - Sediment (Marinewater); 0.0115 mg/kg - Soil; 0.0167 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

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Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The protection time of gloves for mixtures cannot be accurately estimated. The following recommendations are based on information available for component: [Hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics] Wear protective gloves made of the following material: Nitrile rubber. The selected gloves should have a breakthrough time of at least 8 hours. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The breakthrough time for any glove material may be different for different glove manufacturers. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended. The specific work activity/process may require a different specification to that described here.
Other skin and body protection	Wear apron or protective clothing in case of contact.
Hygiene measures	Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not eat, drink or smoke when using this product.
Respiratory protection	No specific requirements are anticipated under normal conditions of use. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Wear a respirator fitted with the following cartridge: Organic vapour + dust and mist filter. Combination filter, type A2/P2. Gas and combination filter cartridges should comply with European Standard EN14387. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Use approved respirator if air contamination is above an acceptable level.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	White.
Odour	Characteristic. Perfume. Cherry.
Odour threshold	No information available.
pH	pH (concentrated solution): 8.0 - 10.5
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.

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Flammability (solid, gas)	Not relevant. Liquid.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Relative density	0.89 - 0.96 @ 20°C
Solubility(ies)	Emulsible in water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	800 - 1500 cP @ 20°C 850 cP @ 40°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information Product does not separate on standing.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures. Product does not separate on standing.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Avoid freezing.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 61,022.12

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

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Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation

Serious eye damage/irritation Eye Irrit. 2 - H319 Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

Aspiration hazard Viscous liquid. Product does not separate on standing.

General information

To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated.

Inhalation

Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion

May cause discomfort. Nausea, vomiting.

Skin contact

Allergic rash. May cause skin sensitisation or allergic reactions in sensitive individuals.

Eye contact

May cause severe eye irritation.

Medical considerations

The following pre-existing or historic medical conditions of the worker may lead to an increased risk of adverse health effects following exposure to this product: Allergies.

Toxicological information on ingredients.

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,001.0

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Species	Rat
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	5,001.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	3,161.0
Species	Rabbit
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	3,161.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	5.7
Species	Rat
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
ATE inhalation (dusts/mists mg/l)	5.7
<u>Skin corrosion/irritation</u>	
Animal data	Repeated or prolonged contact may cause irritation, since the material may remove the natural greases in skin, resulting in dryness, cracking and possibly dermatitis.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	

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Aspiration hazard	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. May be fatal if swallowed and enters airways.
Inhalation	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Ingestion	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	May be slightly irritating to eyes.
Acute and chronic health hazards	Aspiration hazard if swallowed.

C9-11 ALCOHOL ETHOXYLATE 6.5MEO

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,200.0

Species Rat

ATE oral (mg/kg) 1,200.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Data lacking.

Skin corrosion/irritation

Animal data Slightly irritating.

Serious eye damage/irritation

Serious eye damage/irritation May cause irreversible eye damage.

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Data lacking.

Genotoxicity - in vivo Data lacking.

Carcinogenicity

Carcinogenicity Data lacking.

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Reproductive toxicity

Reproductive toxicity - fertility Data lacking.

Specific target organ toxicity - single exposure

STOT - single exposure Data lacking.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Data lacking.

Aspiration hazard

Aspiration hazard No data available.

Inhalation Irritation of nose, throat and airway.

Ingestion May cause stomach pain or vomiting.

Skin contact There may be mild irritation at the site of contact.

Eye contact Risk of serious damage to eyes.

1,2-BENZISOTHIAZOL-3(2H)-ONE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,020.0

Species Rat

ATE oral (mg/kg) 1,020.0

Carcinogenicity

IARC carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

Inhalation Dust may irritate the respiratory system. May be harmful if inhaled.

Ingestion Harmful if swallowed.

Skin contact Causes skin irritation. May be harmful if absorbed through skin.

Eye contact Causes burns.

SECTION 12: Ecological Information

Ecotoxicity Not considered toxic to fish. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS

Acute aquatic toxicity

Acute toxicity - fish LL₅₀, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

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Acute toxicity - aquatic invertebrates	EL50, 48 hours: >1000 mg/l,
Acute toxicity - aquatic plants	EL50, 72 hours: >1000 mg/l, Pseudokirchneriella subcapitata

C9-11 ALCOHOL ETHOXYLATE 6.5MEO

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	EC ₅₀ , 96 hours: 8.5 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 5.3 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product contains inorganic substances which are not biodegradable. The other substances in the product are slowly biodegradable.

Ecological information on ingredients.

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS

Persistence and degradability	The product is readily biodegradable.
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C9-11 ALCOHOL ETHOXYLATE 6.5MEO

Persistence and degradability	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.
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12.3. Bioaccumulative potential

Bioaccumulative potential	Soluble in water, low potential for bioaccumulation.
Partition coefficient	No information available.

Ecological information on ingredients.

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS

Bioaccumulative potential	No data available on bioaccumulation.
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C9-11 ALCOHOL ETHOXYLATE 6.5MEO

Bioaccumulative potential	The product is not bioaccumulating.
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12.4. Mobility in soil

Mobility	The product contains substances which are water-soluble and may spread in water systems. The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.
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Ecological information on ingredients.

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS

Mobility	The product contains substances which are insoluble in water and which may spread on water surfaces.
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C9-11 ALCOHOL ETHOXYLATE 6.5MEO

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Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

HYDROCARBONS, C11-C14, ISOALKANES, CYCLICS, <2% AROMATICS

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

C9-11 ALCOHOL ETHOXYLATE 6.5MEO

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

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. The packaging must be empty (drop-free when inverted).

Waste class Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

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

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

SECTION 15: Regulatory information

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

National regulations This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.
Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

EU legislation Dangerous Substances Directive 67/548/EEC.
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).

Guidance Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.
CHIP for everyone HSG228.
Approved Classification and Labelling Guide (Sixth edition) L131.

Authorisations (Title VII Regulation 1907/2006) No specific authorisations are known for this product.

Restrictions (Title VIII Regulation 1907/2006) No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IATA: International Air Transport Association.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.</p> <p>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>LC₅₀: Lethal Concentration to 50 % of a test population.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> <p>Kow: Octanol-water partition coefficient.</p> <p>EC₅₀: 50% of maximal Effective Concentration.</p>
Classification procedures according to Regulation (EC) 1272/2008	Eye Irrit. 2 - H319, EUH208, EUH066: Calculation method., Expert judgement.
Revision comments	Revised formulation.
Issued by	HS&E Manager.
Revision date	29/06/2018
Revision	5
Supersedes date	12/08/2016
SDS status	Approved.
Hazard statements in full	<p>EUH208 Contains 1,2-BENZISOTHIAZOL-3(2H)-ONE. May produce an allergic reaction.</p> <p>H225 Highly flammable liquid and vapour.</p> <p>H226 Flammable liquid and vapour.</p> <p>H290 May be corrosive to metals.</p> <p>H302 Harmful if swallowed.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H312 Harmful in contact with skin.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H400 Very toxic to aquatic life.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.