

SAFETY DATA SHEET

Quantum Multi-Surface Cleaner

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

1.1. Product identifier

Product name	Quantum Multi-Surface Cleaner
Product number	ZGBMULTCLEN05L
Internal identification	B50932, 30076

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

Identified uses	Car maintenance product. Cleaning agent. Household and Institutional Hard Surface Cleaner
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	Skin Corr. 1A - H314 Eye Dam. 1 - H318
Environmental hazards	Not Classified

Human health The product is strongly irritating to eyes and skin. Prolonged contact may cause burns.

2.2. Label elements

Pictogram



Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage.

Quantum Multi-Surface Cleaner

Precautionary statements	<p>P260 Do not breathe vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</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>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p> <p>P102 Keep out of reach of children.</p>
Contains	2-BUTOXYETHANOL, DISODIUM SILICATE PENTAHYDRATE, Tetrapotassium Pyrophosphate, SODIUM HYDROXIDE
Detergent labelling	< 5% anionic surfactants, < 5% EDTA and salts thereof, < 5% non-ionic surfactants, < 5% perfumes, < 5% phosphates, Contains CITRAL, BENZISOTHIAZOLINONE

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2-BUTOXYETHANOL	1-5%
CAS number: 111-76-2 EC number: 203-905-0 REACH registration number: 01-2119475108-36-XXXX	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	
DISODIUM SILICATE PENTAHYDRATE	1-5%
CAS number: 10213-79-3 EC number: 229-912-9 REACH registration number: 01-2119449811-37-XXXX	
Classification Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	

Quantum Multi-Surface Cleaner

Tetrapotassium Pyrophosphate 1-5%		
CAS number: 7320-34-5	EC number: 230-785-7	REACH registration number: 01-2119489369-18-XXXX
Classification Eye Irrit. 2 - H319		
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		
PROPYLENE GLYCOL <1%		
CAS number: 57-55-6	EC number: 200-338-0	REACH registration number: 01-2119456809-23-XXXX
Classification Not Classified		
GERANYL ACETATE <1%		
CAS number: 105-87-3	EC number: 203-341-5	
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411		
CAMPHENE <1%		
CAS number: 79-92-5	EC number: 201-234-8	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Flam. Sol. 2 - H228 Eye Irrit. 2 - H319 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

Quantum Multi-Surface Cleaner

BENZYL SALICYLATE		<1%
CAS number: 118-58-1	EC number: 204-262-9	REACH registration number: 01-2119969442-31-XXXX
Classification		
Eye Irrit. 2 - H319		
Skin Sens. 1 - H317		
Aquatic Chronic 2 - H411		
3, 7, 11-Trimethyl-2, 6, 10-dodecatrien-1-ol		<1%
CAS number: 4602-84-0	EC number: 225-004-1	
Classification		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Skin Sens. 1 - H317		
4-ALLYL-2-METHOXYPHENOL		<1%
CAS number: 97-53-0	EC number: 202-589-1	REACH registration number: 01-2119971802-33-XXXX
Classification		
Eye Irrit. 2 - H319		
Skin Sens. 1B - H317		

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	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause chemical burns in mouth and throat.
Skin contact	Skin irritation. May cause serious chemical burns to the skin.

Quantum Multi-Surface Cleaner

Eye contact Severe irritation, burning and tearing.

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

Notes for the doctor Treat symptomatically.

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 Irritating gases or vapours.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions 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. Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid freezing. Keep only in the original container.

Quantum Multi-Surface Cleaner

Storage class Chemical storage.

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

2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m³

Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m³

Sk

Tetrapotassium Pyrophosphate

No exposure limit value known.

SODIUM HYDROXIDE

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

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

GERANYL ACETATE

No exposure limit value known.

CAMPHENE

No exposure limit value known.

BENZYL SALICYLATE

No exposure limit value known.

3, 7, 11-Trimethyl-2, 6, 10-dodecatrien-1-ol

No exposure limit value known.

4-ALLYL-2-METHOXYPHENOL

No exposure limit value known.

WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

Ingredient comments WEL = Workplace Exposure Limits

2-BUTOXYETHANOL (CAS: 111-76-2)

DNEL

Industry - Dermal; Short term : 89 mg/kg/day

Industry - Inhalation; Short term : 663 mg/m³

Industry - Dermal; Long term : 75 mg/kg/day

Industry - Inhalation; Long term : 98 mg/m³

Consumer - Dermal; Short term : 44.5 mg/kg/day

Consumer - Oral; Short term : 13.4 mg/kg/day

Consumer - Inhalation; Short term : 123 mg/m³

Consumer - Inhalation; Long term : 49 mg/m³

Quantum Multi-Surface Cleaner

- PNEC**
- Fresh water; 8.8 mg/l
 - Marine water; 0.88 mg/l
 - Soil; 3.13 mg/kg soil dw
 - Intermittent release; 9.1 mg/l
 - Sediment (Freshwater); 34.6 mg/kg sediment dw
 - Sediment (Marinewater); 3.46 mg/kg sediment dw
 - STP; 463 mg/l

DISODIUM SILICATE PENTAHYDRATE (CAS: 10213-79-3)

- Ingredient comments** No exposure limits known for ingredient(s).
- DNEL**
- Workers - Inhalation; Long term systemic effects: 6.22 mg/m³
 - Workers - Dermal; Long term systemic effects: 1.49 mg/kg bw/day
 - General population - Inhalation; Long term systemic effects: 1.55 mg/m³
 - General population - Dermal, Oral; Long term systemic effects: 0.74 mg/kg bw/day
- PNEC**
- Fresh water; 7.5 mg/l
 - Marine water; 1 mg/l
 - Intermittent release; 7.5 mg/l
 - STP; 1000 mg/l

Tetrapotassium Pyrophosphate (CAS: 7320-34-5)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 44.08 mg/m³
 - General population - Inhalation; Long term systemic effects: 10.87 mg/m³
- PNEC**
- Fresh water; 0.05 mg/l
 - Marine water; 0.005 mg/l
 - Intermittent release; 0.5 mg/l
 - STP; 50 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

Sulfonic Acids, C14-C16-Alkane Hydroxy and C14-C16-Alkene, Sodium Salts (CAS: 68439-57-6)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 152.22 mg/m³
 - General population - Inhalation; Long term systemic effects: 45.04 mg/m³
 - General population - Oral; Long term systemic effects: 12.95 mg/kg bw/day
- PNEC**
- Fresh water; 0.024 mg/l
 - Marine water; 0.0024 mg/l
 - Intermittent release; 0.0197 mg/l
 - STP; 4 mg/l
 - Sediment (Freshwater); 0.767 mg/kg sediment dw
 - Sediment (Marinewater); 0.0767 mg/kg sediment dw
 - Soil; 1.21 mg/kg soil dw

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (CAS: 64-02-8)

Quantum Multi-Surface Cleaner

DNEL Workers - Inhalation; Long term local effects: 1.5 mg/m³
 Workers - Inhalation; Short term Acute: 1.5 mg/m³
 General population - Inhalation; Long term local effects: 0.6 mg/m³
 General population - Oral; Long term systemic effects: 25 mg/kg bw/day

PNEC - Fresh water; 2.2 mg/l
 - Marine water; 0.22 mg/l
 - Intermittent release; 1.2 mg/l
 - STP; 43 mg/l
 - Soil; 0.72 mg/kg soil dw

CITRAL (CAS: 5392-40-5)

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

SODIUM SULPHATE (CAS: 7757-82-6)

DNEL Workers - Inhalation; Long term systemic effects: 22.4 mg/m³
 Workers - Dermal; Long term systemic effects: 3.2 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 5.4 mg/m³
 General population - Dermal, Oral; Long term systemic effects: 1.6 mg/kg bw/day

PNEC - Fresh water; 22 mg/l
 - Marine water; 2.2 mg/l
 - Intermittent release; 11.5 mg/l
 - STP; 800 mg/l
 - Sediment (Freshwater); 17.2 mg/kg sediment dw
 - Sediment (Marinewater); 1.72 mg/kg sediment dw
 - Soil; 2.61 mg/kg soil dw

TRISODIUM NITRILOTRIACETATE (CAS: 5064-31-3)

DNEL Industry - Inhalation; Short term systemic effects: 5.25 mg/m³
 Industry - Inhalation; Short term local effects: 5.25 mg/m³
 Industry - Inhalation; Long term systemic effects: 3.2 mg/m³
 Consumer - Inhalation; Short term systemic effects: 1.75 mg/m³
 Consumer - Oral; Long term systemic effects: 0.3 mg/kg bw/day
 Workers - Inhalation; Short term Acute: 9.6 mg/m³
 General population - Inhalation; Short term Acute: 2.4 mg/m³
 General population - Oral; Short term Acute: 0.9 mg/kg bw/day

Quantum Multi-Surface Cleaner

- PNEC**
- Fresh water; 0.93 mg/l
 - Marine water; 0.093 mg/l
 - Intermittent release; 0.8 mg/l
 - STP; 270 mg/l
 - Sediment (Freshwater); 3.64 mg/kg
 - Sediment (Marinewater); 0.364 mg/kg
 - Soil; 0.182 mg/kg

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

- DNEL**
- Workers - Inhalation; Long term systemic effects: 33.3 mg/m³
 - Workers - Dermal; Short term local effects, Acute: 0.222 mg/cm²
 - General population - Inhalation; Long term systemic effects: 8.33 mg/m³
 - General population - Dermal; Short term local effects, Acute: 0.111 mg/cm²
 - 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

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

GERANYL ACETATE (CAS: 105-87-3)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 62.59 mg/m³
 - Workers - Dermal; Long term systemic effects: 35.5 mg/kg bw/day
 - General population - Inhalation; Long term systemic effects: 15.4 mg/m³
 - General population - Dermal; Long term systemic effects: 17.75 mg/kg bw/day
 - General population - Oral; Long term systemic effects: 8.9 mg/kg bw/day

- PNEC**
- Fresh water; 0.00372 mg/l
 - Marine water; 0.000372 mg/l
 - Intermittent release; 0.0372 mg/l
 - STP; 8 mg/l
 - Sediment (Freshwater); 0.442 mg/kg sediment dw
 - Sediment (Marinewater); 0.0442 mg/kg sediment dw
 - Soil; 0.0859 mg/kg soil dw

GERANIOL (CAS: 106-24-1)

Quantum Multi-Surface Cleaner

DNEL

Workers - Inhalation; Long term systemic effects: 161.6 mg/m³
 Workers - Dermal; Long term systemic effects: 12.5 mg/kg bw/day
 Workers - Dermal; Long term local effects: 11.8 mg/cm²
 General population - Inhalation; Long term systemic effects: 47.8 mg/m³
 General population - Dermal; Long term systemic effects: 7.5 mg/kg bw/day
 General population - Dermal; Long term local effects: 11.8 mg/cm²
 General population - Oral; Long term systemic effects: 13.75 mg/kg bw/day

PNEC

- 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

CAMPHENE (CAS: 79-92-5)

DNEL

Workers - Inhalation; Long term, Short term systemic effects, Acute: 110.19 mg/m³
 Workers - Dermal; Long term systemic effects: 0.21 mg/kg bw/day
 Workers - Dermal; Short term Acute: 1.25 mg/kg bw/day
 General population - Inhalation; Long term, Short term systemic effects, Acute: 54.3 mg/m³
 General population - Dermal, Oral; Long term systemic effects: 0.1 mg/kg bw/day
 General population - Dermal, Oral; Short term Acute: 0.625 mg/kg bw/day

PNEC

- Fresh water; 0.00072 mg/l
- Marine water; 0.000072 mg/l
- Intermittent release; 0.00072 mg/l
- STP; 10 mg/l
- Sediment (Freshwater); 0.0262 mg/kg sediment dw
- Sediment (Marinewater); 0.00262 mg/kg sediment dw
- Soil; 0.0211 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

Quantum Multi-Surface Cleaner

- 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)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 161.6 mg/m³
 - Workers - Inhalation; Long term local effects: 10 mg/m³
 - Workers - Inhalation; Short term Acute: 10 mg/m³
 - Workers - Dermal; Long term systemic effects: 327.4 mg/kg bw/day
 - General population - Inhalation; Long term systemic effects: 47.8 mg/m³
 - General population - Inhalation; Long term local effects: 10 mg/m³
 - General population - Inhalation; Short term Acute: 10 mg/m³
 - General population - Dermal; Long term systemic effects: 196.4 mg/kg bw/day
 - General population - Dermal; Short term local effects, Acute: 2.950 mg/cm²
 - Workers - Dermal; Short term Acute, local effects: 2.950 mg/cm²
 - General population - Oral; Long term systemic effects: 13.8 mg/kg bw/day

- PNEC**
- 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

BENZYL SALICYLATE (CAS: 118-58-1)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 3.17 mg/m³
 - Workers - Dermal; Long term systemic effects: 0.9 mg/kg bw/day
 - General population - Inhalation; Long term systemic effects: 0.78 mg/m³
 - General population - Dermal; Long term systemic effects: 0.45 mg/kg bw/day
 - General population - Oral; Long term systemic effects: 0.45 mg/kg bw/day

- PNEC**
- Fresh water; 0.00103 mg/l
 - Marine water; 0.000103 mg/l
 - Intermittent release; 0.0103 mg/l
 - STP; 10 mg/l
 - Sediment (Freshwater); 0.584 mg/kg sediment dw
 - Sediment (Marinewater); 0.0584 mg/kg sediment dw
 - Soil; 0.021 mg/kg soil dw

4-ALLYL-2-METHOXYPHENOL (CAS: 97-53-0)

- DNEL**
- Workers - Inhalation; Long term systemic effects: 21.2 mg/m³
 - Workers - Dermal; Long term systemic effects: 6 mg/kg bw/day
 - General population - Inhalation; Long term systemic effects: 5.22 mg/m³
 - General population - Dermal, Oral; Long term systemic effects: 3 mg/kg bw/day

Quantum Multi-Surface Cleaner

PNEC

- Fresh water; 0.00113 mg/l
- Marine water; 0.000113 mg/l
- Intermittent release; 0.0113 mg/l
- Sediment (Freshwater); 0.081 mg/kg sediment dw
- Sediment (Marinewater); 0.0081 mg/kg sediment dw
- Soil; 0.0155 mg/kg soil dw

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Contact lenses should not be worn when working with this chemical. Use safety glasses (with side shields), consistent with EN 166 or equivalent.

Hand protection

Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Use gloves with insulation for thermal protection (EN 407), when needed. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Provide eyewash station and safety shower. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin.

Hygiene measures

Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product.

Respiratory protection

No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

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

Colour	Clear to slightly hazy pink.
Odour	Lemon.
pH	pH (diluted solution): 12.6-12.9 @ 10% solution in water

Quantum Multi-Surface Cleaner

Relative density	1.055-1.065 @ 20°C
Solubility(ies)	Completely soluble in water. Miscible with the following materials: Alcohols. Almost insoluble in the following materials: Hydrocarbons.

9.2. Other information

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 and when used as recommended.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 29,378.46

Acute toxicity - dermal

ATE dermal (mg/kg) 50,000.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 275.0

General information	To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated.
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
Ingestion	May cause discomfort if swallowed.
Skin contact	Irritating to skin. Prolonged contact may cause burns.
Eye contact	Causes serious eye irritation. Prolonged contact may cause burns.
Acute and chronic health hazards	Not expected to be a health hazard when used under normal conditions.
Route of exposure	Skin and/or eye contact

Quantum Multi-Surface Cleaner

Target organs	Eyes Skin Respiratory system, lungs Gastro-intestinal tract
Medical symptoms	Irritation of eyes and mucous membranes. Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

Toxicological information on ingredients.

2-BUTOXYETHANOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,414.0

Species Guinea pig

ATE oral (mg/kg) 1,414.0

Acute toxicity - dermal

ATE dermal (mg/kg) 2,000.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

Skin corrosion/irritation

Extreme pH Slightly irritating. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating. Rabbit

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

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 No evidence of reproductive toxicity in animal studies.

Inhalation Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Ingestion Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

Quantum Multi-Surface Cleaner

Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	Irritation of eyes and mucous membranes.
Route of exposure	Ingestion Inhalation
Target organs	Brain Respiratory system, lungs Mucous membranes
Medical symptoms	Skin irritation. Irritation of eyes and mucous membranes. High concentration of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

DISODIUM SILICATE PENTAHYDRATE

Toxicological effects All symptoms of acute toxicity are due to high alkalinity.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,152.0

Species Rat

Notes (oral LD₅₀) Conclusive data but not sufficient for classification.

Acute toxicity - dermal

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

Species Rabbit

ATE dermal (mg/kg) 5,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 2.7

Species Rat

Notes (inhalation LC₅₀) Conclusive data but not sufficient for classification.

Skin corrosion/irritation

Animal data Corrosive to skin. Causes severe burns.

Serious eye damage/irritation

Serious eye damage/irritation Causes burns. Corrosive to eyes.

Respiratory sensitisation

Respiratory sensitisation Conclusive data but not sufficient for classification.

Skin sensitisation

Skin sensitisation Conclusive data but not sufficient for classification.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Carcinogenicity

Quantum Multi-Surface Cleaner

Carcinogenicity	Conclusive data but not sufficient for classification.
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
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Conclusive data but not sufficient for classification.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Inhalation - May cause respiratory irritation.
Target organs	Respiratory system, lungs
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Conclusive data but not sufficient for classification.
<u>Aspiration hazard</u>	
Aspiration hazard	Conclusive data but not sufficient for classification.

Tetrapotassium Pyrophosphate

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	2,440.0
Species	Rat
Notes (oral LD₅₀)	
ATE oral (mg/kg)	2,440.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	2,001.0
Species	Rabbit
ATE dermal (mg/kg)	2,001.0
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Data lacking.
<u>Skin corrosion/irritation</u>	
Animal data	Conclusive data but not sufficient for classification.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Eye: Causes serious eye irritation.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Conclusive data but not sufficient for classification.
<u>Skin sensitisation</u>	
Skin sensitisation	Conclusive data but not sufficient for classification.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Negative.

Quantum Multi-Surface Cleaner

Genotoxicity - in vivo	Data lacking.
<u>Carcinogenicity</u>	
Carcinogenicity	Conclusive data but not sufficient for classification.
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
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Conclusive data but not sufficient for classification.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Conclusive data but not sufficient for classification.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Conclusive data but not sufficient for classification.
<u>Aspiration hazard</u>	
Aspiration hazard	Conclusive data but not sufficient for classification.
<u>Eye contact</u>	
Eye contact	Causes serious eye irritation.

SODIUM HYDROXIDE

<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Causes severe burns.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes burns.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin 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.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	

Quantum Multi-Surface Cleaner

Reproductive toxicity - fertility 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 No data available.

Skin contact Strong caustic effect on skin and mucous membranes.

Eye contact Strong caustic effect.

CITRAL

Skin corrosion/irritation

Animal data Rabbit Irritating.

Skin sensitisation

Skin sensitisation Sensitising.

d-LIMONENE

Skin corrosion/irritation

Animal data Moderately irritating.

Skin sensitisation

Skin sensitisation Sensitising.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment. The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Ecological information on ingredients.

2-BUTOXYETHANOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1464 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1800 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 911 mg/l, Pseudokirchneriella subcapitata
NOEC, 72 hours: 88 mg/l, Pseudokirchneriella subcapitata

DISODIUM SILICATE PENTAHYDRATE

Quantum Multi-Surface Cleaner

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 210 mg/l, Brachydanio rerio (Zebra Fish)
EC₅₀, 48 hours: 1700 mg/l,

Tetrapotassium Pyrophosphate

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, Daphnia magna
NOEC, 48 hours: 100 mg/l, Daphnia magna

Acute toxicity - aquatic plants Read Across Data., Effect on growth., EC₅₀, 72 hours: >100 mg/l, Desmodemus subspicatus
Read Across Data., Effect on growth., NOEC, 72 hours: 100 mg/l, Desmodemus subspicatus

Acute toxicity - microorganisms Read Across Data., EC₅₀, 3 hours: >1000 mg/l, Activated sludge
Read-across data., NOEC, 3 hours: 1000 mg/l, Activated sludge

SODIUM HYDROXIDE

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 40.4 mg/l, Ceriodaphnia Sp.

d-LIMONENE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.720 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.36 mg/l, Daphnia magna

Acute toxicity - aquatic plants NOEC, 72 hours: 1.6 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms EC₅₀, 3 hours: 209 mg/l, Activated sludge

Chronic aquatic toxicity

M factor (Chronic) 1

Chronic toxicity - aquatic invertebrates EC₅₀, 16 days: 0.115 mg/l, Freshwater invertebrates

12.2. Persistence and degradability

Persistence and degradability The surfactant(s) contained in this product complies(comply) 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.

Ecological information on ingredients.

2-BUTOXYETHANOL

Quantum Multi-Surface Cleaner

Persistence and degradability The product is readily biodegradable.

DISODIUM SILICATE PENTAHYDRATE

Persistence and degradability Soluble silicates are inorganic substances that when diluted they rapidly depolymerise into molecular structures similar to natural dissolved silica.

Tetrapotassium Pyrophosphate

Persistence and degradability No data available.

SODIUM HYDROXIDE

Persistence and degradability The substances in this product are readily biodegradable.

12.3. Bioaccumulative potential

Ecological information on ingredients.

2-BUTOXYETHANOL

Partition coefficient log Pow: < 2 : 0.8

DISODIUM SILICATE PENTAHYDRATE

Bioaccumulative potential The product is not bioaccumulating.

Tetrapotassium Pyrophosphate

Bioaccumulative potential The product is not bioaccumulating.

SODIUM HYDROXIDE

Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil

Mobility The product is soluble in water.

Ecological information on ingredients.

2-BUTOXYETHANOL

Mobility The product is soluble in water.

Henry's law constant 0.0098 Pa m³/mol @ °C

DISODIUM SILICATE PENTAHYDRATE

Mobility Not applicable.

Tetrapotassium Pyrophosphate

Mobility No data available.

12.5. Results of PBT and vPvB assessment

Quantum Multi-Surface Cleaner

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

Ecological information on ingredients.

2-BUTOXYETHANOL

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

DISODIUM SILICATE PENTAHYDRATE

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

Tetrapotassium Pyrophosphate

Results of PBT and vPvB assessment PBT assessment does not apply.

SODIUM HYDROXIDE

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

Ecological information on ingredients.

DISODIUM SILICATE PENTAHYDRATE

Other adverse effects The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3266
UN No. (IMDG)	3266
UN No. (ICAO)	3266
UN No. (ADN)	3266

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS DISODIUM SILICATE PENTAHYDRATE, SODIUM HYDROXIDE)

Quantum Multi-Surface Cleaner

Proper shipping name (IMDG) CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS DISODIUM SILICATE PENTAHYDRATE, SODIUM HYDROXIDE)

Proper shipping name (ICAO) CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS DISODIUM SILICATE PENTAHYDRATE, SODIUM HYDROXIDE)

Proper shipping name (ADN) CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS DISODIUM SILICATE PENTAHYDRATE, SODIUM HYDROXIDE)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C5
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

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

SECTION 15: Regulatory information

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

National regulations Control of Pollution (Special Waste) Regulations 1980 (as amended).
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

Quantum Multi-Surface Cleaner

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).
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.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	HS&E Manager.
Revision date	29/06/2018
Revision	3
Supersedes date	16/06/2015
SDS number	20547
SDS status	Approved.
Hazard statements in full	H228 Flammable solid. H290 May be corrosive to metals. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. 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.

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.