

SAFETY DATA SHEET**QUANTUM GLASS CLEANER****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name QUANTUM GLASS CLEANER
Product number ZGBGLASCLEA05L, ZGBGLASCLEN750
Internal identification B50905, 30052, 30066

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

Identified uses Glass 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

1.4. Emergency telephone number

Emergency telephone Tel:

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification****Physical hazards**

Flam. Liq. 3 - H226

Health hazards

Eye Irrit. 2 - H319

Environmental hazards

Not Classified

Classification (67/548/EEC or 1999/45/EC)

R10.

Human health

The product contains small amounts of organic solvents.

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

QUANTUM GLASS CLEANER

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash contaminated skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with national regulations.

P102 Keep out of reach of children.

Contains

PROPAN-2-OL

Detergent labelling

< 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**

PROPAN-2-OL	5-10%
CAS number: 67-63-0 EC number: 200-661-7 REACH registration number: 01-2119457558-25-XXXX	
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 Xi;R36 R67
Eye Irrit. 2 - H319	
STOT SE 3 - H336	
2-BUTOXYETHANOL	1-5%
CAS number: 111-76-2 EC number: 203-905-0 REACH registration number: 01-2119475108-36-XXXX	
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn;R20/21/22 Xi;R36/38
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	

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SODIUM LAURYL ETHER SULPHATE <1%	
CAS number: 9004-82-4 EC number: —	
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318	Classification (67/548/EEC or 1999/45/EC) Xi;R38,R41.
BENZALDEHYDE <1%	
CAS number: 100-52-7 EC number: 202-860-4	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Irrit. 2 - H319 STOT SE 3 - H335	Classification (67/548/EEC or 1999/45/EC) Xn;R20/22. Xi;R36/37.
PROPYLENE GLYCOL <1%	
CAS number: 57-55-6 EC number: 200-338-0 REACH registration number: 01-2119456809-23-XXXX	
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -
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	Classification (67/548/EEC or 1999/45/EC) F;R11 Xi;R36 R66 R67
SODIUM HYDROXIDE <1%	
CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-2119457892-27-XXXX	
Classification Skin Corr. 1A - H314 Eye Dam. 1 - H318	Classification (67/548/EEC or 1999/45/EC) C;R35
Heliotropine <1%	
CAS number: 120-57-0 EC number: 204-409-7	
Classification Skin Sens. 1B - H317	Classification (67/548/EEC or 1999/45/EC) R43.
UNDECA-1,4-LACTONE <1%	
CAS number: 104-67-6 EC number: 203-225-4	
Classification Aquatic Chronic 3 - H412	Classification (67/548/EEC or 1999/45/EC) N;R51/53.

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BUTYLATED HYDROXYTOLUENE <1%	
CAS number: 128-37-0 EC number: 204-881-4 REACH registration number: 01-2119565113-46-XXXX	
M factor (Acute) = 1 M factor (Chronic) = 1	
Classification Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC or 1999/45/EC) N;R50/53.
Ethyl methylphenylglycidate <1%	
CAS number: 77-83-8 EC number: 201-061-8	
Classification Skin Sens. 1B - H317 Aquatic Chronic 2 - H411	Classification (67/548/EEC or 1999/45/EC) N;R51/53. R43.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

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. Never give anything by mouth to an unconscious person. Get medical attention if any discomfort continues.

Inhalation

Place unconscious person on their side in the recovery position and ensure breathing can take place. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Do not induce vomiting.

Skin contact

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention if any discomfort continues.

Eye contact

Remove any contact lenses and open eyelids wide apart. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Ingestion

May cause unconsciousness, blindness and possibly death.

Skin contact

May cause irritation.

Eye contact

Irritating and may cause redness and pain.

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

Notes for the doctor

No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with the following media: Alcohol-resistant foam. Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

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

The product is flammable. Heating may generate flammable vapours. Thermal decomposition or combustion products may include the following substances: Toxic 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.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

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

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Keep combustible materials away from spillage. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

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

Keep away from heat, sparks and open flame. Avoid spilling. Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

QUANTUM GLASS CLEANER

Store in tightly-closed, original container in a dry and cool place. Store under well-ventilated conditions at a temperature below 25°C.

Storage class

Flammable liquid 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

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³
Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

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

SODIUM LAURYL ETHER SULPHATE

No exposure limit value known.

BENZALDEHYDE

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

ETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm
Short-term exposure limit (15-minute): WEL 400 ppm

SODIUM HYDROXIDE

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

Heliotropine

No exposure limit value known.

UNDECA-1,4-LACTONE

No exposure limit value known.

BUTYLATED HYDROXYTOLUENE

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

Ethyl methylphenylglycidate

No exposure limit value known.

WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

Ingredient comments

WEL = Workplace Exposure Limits

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PROPAN-2-OL (CAS: 67-63-0)

DNEL Industry - Inhalation; Long term systemic effects: 500 mg/m³
Consumer - Dermal; Long term systemic effects: 319 mg/kg/day
Consumer - Oral; Long term systemic effects: 26 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 89 mg/m³
Industry - Dermal; Long term systemic effects: 888 mg/kg/day

PNEC - Fresh water; 140.9 mg/l
- Marine water; 140.9 mg/l
- Intermittent release; 140.9 mg/l
- Sediment (Freshwater); 552 mg/kg
- Sediment (Marinewater); 552 mg/kg
- STP; 2251 mg/l
- Soil; 28 mg/kg

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

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

SODIUM LAURYL ETHER SULPHATE (CAS: 9004-82-4)

DNEL No DNEL available.

PNEC No PNEC available.

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

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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

ETHYL ACETATE (CAS: 141-78-6)

DNEL Workers - Inhalation; Long term systemic effects: 734 mg/m³
Workers - Inhalation; Short term Acute: 1468 mg/m³
Workers - Inhalation; Long term local effects: 734 mg/m³
Workers - Inhalation; Short term Acute: 1468 mg/m³
Workers - Dermal; Long term systemic effects: 63 mg/kg bw/day
General population - Inhalation; Long term systemic effects: 367 mg/m³
General population - Inhalation; Short term Acute: 734 mg/m³
General population - Inhalation; Long term local effects: 367 mg/m³
General population - Inhalation; Short term Acute: 734 mg/m³
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

SODIUM HYDROXIDE (CAS: 1310-73-2)

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

Heliotropine (CAS: 120-57-0)

DNEL Workers - Inhalation; Long term systemic effects: 3.5 mg/m³
Workers - Dermal; Long term systemic effects: 0.5 mg/kg bw/day
General population - Inhalation; Long term systemic effects: 0.87 mg/m³
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

QUANTUM GLASS CLEANER**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

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

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

BUTYLATED HYDROXYTOLUENE (CAS: 128-37-0)

DNEL Workers - Inhalation; Long term systemic effects: 3.5 mg/m³
 Workers - Dermal; Long term systemic effects: 0.5 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 0.86 mg/m³
 General population - Dermal, Oral; Long term systemic effects: 0.25 mg/kg bw/day

PNEC - Fresh water; 0.000199 mg/l
 - Marine water; 0.0000199 mg/l
 - Intermittent release; 0.00199 mg/l
 - STP; 0.17 mg/l
 - Sediment (Freshwater); 0.996 mg/l
 - Sediment (Marinewater); 0.00996 mg/l
 - Soil; 0.04769 mg/l

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Ethyl methylphenylglycidate (CAS: 77-83-8)

DNEL	Workers - Inhalation; Long term systemic effects: 2.45 mg/m ³ Workers - Dermal; Long term systemic effects: 0.7 mg/kg bw/day General population - Inhalation; Long term systemic effects: 0.61 mg/m ³ General population - Dermal, Oral; Long term systemic effects: 0.35 mg/kg bw/day
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

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

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.

Hand protection

No specific hand protection recommended. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2.

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

Clear liquid.

Colour

Blue.

Odour

Mild. Perfume.

pH

pH (concentrated solution): 8.0 to 10.5

Melting point

Below minus 5°C

QUANTUM GLASS CLEANER

Flash point

49°C CC (Closed cup).

Relative density

0.980 @ 20°C

Solubility(ies)

Completely soluble in water.

Viscosity

1.3 cSt @ 20°C

9.2. Other information**Refractive index**

1.344

Volatile organic compound

This product contains a maximum VOC content of 80.0 g/litre.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability**Stability**

No particular stability concerns.

10.3. Possibility of hazardous reactions

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with the following materials: Acids. Oxidising agents.

10.5. Incompatible materials**Materials to avoid**

Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects**Toxicological effects**

Materials used in this product have been shown to be of very low toxicity, but best practice dictates that prolonged exposure should be avoided.

Other health effects

There is no evidence that the product can cause cancer.

Acute toxicity - oral**ATE oral (mg/kg)**

66.666.66666667

Acute toxicity - dermal**ATE dermal (mg/kg)**

66666.66666667

Acute toxicity - inhalation**ATE inhalation (vapours mg/l)**

666.66666667

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Skin corrosion/irritation

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

Serious eye damage/irritation

Irritating to eyes: Category 2.

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

No harmful effects expected from quantities likely to be ingested by accident.

Skin contact

Repeated exposure may cause skin dryness or cracking.

Eye contact

May cause temporary eye irritation.

Acute and chronic health hazards

Not expected to be a health hazard when used under normal conditions.

Route of entry

Inhalation Skin absorption Ingestion. Skin and/or eye contact

Target organs

Central nervous system Eyes Gastro-intestinal tract Kidneys Liver Respiratory system, lungs Blood

Medical symptoms

Irritation of eyes and mucous membranes. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Visual disturbances, including blurred vision.

Toxicological information on ingredients.

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD50 mg/kg)

5,840

Species

Rat Rat

ATE oral (mg/kg)

5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD50 mg/kg)

16.4

Species

Rabbit Rabbit

ATE dermal (mg/kg)

12874.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC50 vapours mg/l)

25.5

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Species

Rat

ATE inhalation (vapours mg/l)

25.5

Skin corrosion/irritation

Animal data

Not irritating.

Serious eye damage/irritation

Rabbit eyes: Severe eye irritation.

Respiratory sensitisation

Not available.

Skin sensitisation

Not considered to be a skin sensitizer

Germ cell mutagenicity

Genotoxicity - in vitro

Negative.

Genotoxicity - in vivo

Negative.

Reproductive toxicity

Reproductive toxicity - fertility

Does not interfere with fertility.

Reproductive toxicity - development

No evidence of reproductive toxicity in animal studies.

Specific target organ toxicity - single exposure

STOT - single exposure

Inhalation: May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male/female mice (thyroid) by mechanisms of action that are not relevant to humans. Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard if swallowed. The fluid can enter the lungs and cause damage (chemical pneumonitis, possibly fatal).

Inhalation

Drowsiness, dizziness, disorientation, vertigo.

Ingestion

No specific health hazards known.

Skin contact

No specific health hazards known.

Eye contact

Irritating to eyes. Splashes in eyes may cause strong pain. Vapour acts as irritant.

Acute and chronic health hazards

Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

2-BUTOXYETHANOL

Acute toxicity - oral

QUANTUM GLASS CLEANER**ATE oral (mg/kg)**

2,000.0

Acute toxicity - dermal**ATE dermal (mg/kg)**

2000.0

Acute toxicity - inhalation**ATE inhalation (vapours mg/l)**

20.0

Skin corrosion/irritation**Extreme pH**

Slightly irritating. Rabbit

Serious eye damage/irritation

Slightly irritating. Rabbit

Respiratory sensitisation

Based on available data the classification criteria are not met.

Skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity**Genotoxicity - in vitro**

Negative.

Genotoxicity - in vivo

Negative.

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.

Skin contact

Repeated exposure may cause skin dryness or cracking.

Eye contact

Irritation of eyes and mucous membranes.

Route of entry

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.

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Ecotoxicity

The product is not expected to be hazardous to 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.

PROPAN-2-OL

Acute toxicity - fish

LC₅₀, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates

EC₅₀, 24 hours: 9714 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC₅₀, 72 hours: > 1000 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms

EC₅₀, : > 1000 mg/l, Activated sludge

2-BUTOXYETHANOL

Acute toxicity - fish

LC₅₀, 96 hours: >100 mg/l, Fish

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC₅₀, : 900 mg/l, Scenedesmus subspicatus

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.

PROPAN-2-OL

Persistence and degradability

The product is expected to be biodegradable.

Biodegradation

- Degradation (%) 95%: 21 days

2-BUTOXYETHANOL

Persistence and degradability

The product is readily biodegradable.

12.3. Bioaccumulative potential

The product shows little or no tendency to bioaccumulate, and poses no long term threat to wildlife.

Ecological information on ingredients.

PROPAN-2-OL

The product is not bioaccumulating.

Partition coefficient

log Pow: 0.05

2-BUTOXYETHANOL

Partition coefficient

log Pow: < 2 : 0.8

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12.4. Mobility in soil

Mobility

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

Ecological information on ingredients.

PROPAN-2-OL

Mobility

The product is soluble in water.

Adsorption/desorption coefficient

Soil - Koc: ~ 1.1 @ °C

Henry's law constant

0.00000338 atm m³/mol @ 25°C

2-BUTOXYETHANOL

Mobility

The product is soluble in water.

Henry's law constant

0.0098 Pa m³/mol @ °C

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

PROPAN-2-OL

This substance is not classified as PBT or vPvB according to current EU criteria.

2-BUTOXYETHANOL

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

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. The packaging must be empty (drop-free when inverted).

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)	1987
UN No. (IMDG)	1987
UN No. (ICAO)	1987
UN No. (ADN)	1987

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ALCOHOLS, N.O.S. (PROPAN-2-OL)
Proper shipping name (IMDG)	ALCOHOLS, N.O.S. (PROPAN-2-OL)

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Proper shipping name (ICAO) ALCOHOLS, N.O.S. (PROPAN-2-OL)

Proper shipping name (ADN) ALCOHOLS, N.O.S. (PROPAN-2-OL)

14.3. Transport hazard class(es)

ADR/RID class 3
ADR/RID classification code F1
ADR/RID label 3
IMDG class 3
ICAO class/division 3
ADN class 3

Transport labels**14.4. Packing group**

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-E, S-D
ADR transport category 3
Emergency Action Code •3Y
Hazard Identification Number (ADR/RID) 30
Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 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).

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

QUANTUM GLASS CLEANER

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 15/12/2014

Revision 2

Supersedes date 01/09/2012

SDS status Approved.

Risk phrases in full

R10 Flammable.

R11 Highly flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R22 Harmful if swallowed.

R36 Irritating to eyes.

R36/38 Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

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.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Disclaimer

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.