



Quantum Aircon Cleaner

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

1.1. Product identifier

Product form : Mixture
Product name : Quantum Aircon Cleaner
Product code : ZGB410015

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Cleaning of the air conditioning system including the evaporator and the interior of motorvehicles.
Function or use category : Aerosol propellants

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Volkswagen Group UK Limited
Yeomans Drive
Blakeland
MK14 5AN - UK
T +44 (0) 800 333666

1.4. Emergency telephone number

Emergency number : Hazchem line: 0044 (0) 7970 779978

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol 1 H222;H229
Aquatic Acute 1 H400

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS09

Signal word (CLP) : Danger

Hazardous ingredients : Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Hazard statements (CLP) : H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H400 - Very toxic to aquatic life.

Precautionary statements (CLP) : P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P273 - Avoid release to the environment.

Allergenic fragrances > 0,01%:

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CITRONELLOL
GERANIOL
LINALOOL
BENZYL ALCOHOL

Detergent Regulation : Labelling of contents:(Regulation (EC) No. 648/2004 of 31 March 2004 on detergents):

Component	%
aliphatic hydrocarbons	<5%
disinfectants	
perfumes	
CITRONELLOL	
GERANIOL	
LINALOOL	
BENZYL ALCOHOL	

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	% w	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Butane n-	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (EC Index-No.) 601-004-00-0 (REACH-no) 01-2119474691-32	25 - 50	Flam. Gas 1, H220
Ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5 (REACH-no) 01-2119457610-43	25 - 50	Flam. Liq. 2, H225 Eye Irrit. 2, H319
Propane	(CAS-No.) 74-98-6 (EC-No.) 200-827-9 (EC Index-No.) 601-003-00-5 (REACH-no) 01-2119486944-21	10 - 25	Flam. Gas 1, H220
Propan-2-ol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0 (REACH-no) 01-2119457558-25	1 - 2.5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	(CAS-No.) 68424-85-1 (EC-No.) 270-325-2 (REACH-no) 01-2119983287-23	0.3	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

Name	Product identifier	Specific concentration limits
Ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5 (REACH-no) 01-2119457610-43	(C >= 50) Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Check the vital functions. Victim conscious with laboured breathing: half-seated. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Keep watching the victim. Keep the victim calm, avoid physical strain. Give psychological aid. Prevent cooling by covering the victim (no warming up). Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact

: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.

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- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : If swallowed, rinse mouth. Call a POISON CENTER/doctor if you feel unwell. As it is a spray can packaging it is most unlikely that large quantities will be swallowed.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Alcohol resistant foam. ABC-powder. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol. Heating may cause a fire or explosion. Gas/vapour spreads at floor level: ignition hazard.

Explosion hazard : Heating may cause an explosion. May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Cool closed containers exposed to fire with water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves and eye/face protection. protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

Emergency procedures : Mark the danger area. Stop engines and no smoking. Keep upwind. No naked flames, sparks, and do not smoke. Use spark-/explosionproof appliances and lighting system. Prevent flow to low areas. Large spills/in confined spaces: consider evacuation. Wash contaminated clothes.

6.1.2. For emergency responders

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information : Ventilate area.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Meet the legal requirements. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Presents no particular risk when handled in accordance with good occupational hygiene practice.

Hygiene measures : Use good personal hygiene practices. IF ON SKIN: Gently wash with plenty of soap and water. Wash contaminated clothing before reuse.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Storage temperature	: ≤ 45 °C
Heat and ignition sources	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Information on mixed storage	: Keep away from strong acids and strong oxidizers.
Storage area	: Meet the legal requirements. Protect from heat and direct sunlight. Ventilation along the floor. Fireproof storeroom.
Special rules on packaging	: Labelling according to. Meet the legal requirements.
Packaging materials	: Aerosol.

7.3. Specific end use(s)

Use biocides safely. Always read the label and product information before use. See product bulletin for detailed information.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Butane n- (106-97-8)

Belgium	Limit value (ppm)	1000 ppm
Hungary	AK-érték	2350 mg/m ³
Hungary	CK-érték	9400 mg/m ³

Ethanol (64-17-5)

Belgium	Limit value (mg/m ³)	1907 mg/m ³
Belgium	Limit value (ppm)	1000 ppm
Hungary	AK-érték	1900 mg/m ³
Hungary	CK-érték	7600 mg/m ³

Propane (74-98-6)

Belgium	Limit value (ppm)	1000 ppm
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Propan-2-ol (67-63-0)

Belgium	Limit value (mg/m ³)	500 mg/m ³
Belgium	Limit value (ppm)	200 ppm
Belgium	Short time value (mg/m ³)	1000 mg/m ³
Belgium	Short time value (ppm)	400 ppm
France	VLE (mg/m ³)	980 mg/m ³
France	VLE (ppm)	400 ppm

Ethanol (64-17-5)

DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1900 mg/m ³
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	950 mg/m ³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	950 mg/m ³
Long-term - systemic effects, oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m ³
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.63 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	580 mg/l

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Propan-2-ol (67-63-0)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	888 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	500 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	89 mg/m ³
Long-term - systemic effects, dermal	319 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	140.9 mg/l
PNEC aqua (marine water)	140.9 mg/l
PNEC aqua (intermittent, freshwater)	140.9 mg/l
PNEC aqua (intermittent, marine water)	140.9 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	552 mg/kg dwt
PNEC sediment (marine water)	552 mg/kg dwt
PNEC (Soil)	
PNEC soil	28 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	160 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	2251 mg/l

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide good ventilation in process area to prevent formation of vapour. Does not require any specific or particular technical measures.

Personal protective equipment

: Protective clothing. Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.



Hand protection

: PVC (Polyvinyl chloride). Nitrile rubber. Neoprene. Time of penetration is to be checked with the glove producer. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer.

Other information

: Breakthrough time : >30'. Thickness of the glove material >0.1mm.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Aerosol.
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: No data available
pH	:
Relative evaporation rate (butylacetate=1)	: No data available
refraction index	: 1.365
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 78 - 100 °C
Flash point	: 13 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available

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Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density @20°C	: 790 kg/m ³
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic @40°C	: < 1 mm ² /s
Viscosity, dynamic @40°C	: No data available
Viscosity	:
Viscosity Index	:
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 99.125 %
Additional information	: Physical and chemical properties of the active product without gas. The physical and chemical data in this section are typical values for this product and are not intended as product specifications.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Extremely flammable aerosol. Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

On burning: release of harmful/irritant gases/vapours. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Ethanol (64-17-5)

LD50 oral rat	10470 mg/kg @95%
LC50 inhalation rat (mg/l)	117 - 125 mg/l/4h Sprague-Dawley
ATE CLP (oral)	10470 mg/kg bodyweight
ATE CLP (vapours)	117 mg/l/4h
ATE CLP (dust,mist)	117 mg/l/4h

Propan-2-ol (67-63-0)

LD50 oral rat	5840 mg/kg bodyweight Sherman
LD50 dermal rabbit	13900 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 25 mg/l
ATE CLP (oral)	5840 mg/kg bodyweight
ATE CLP (dermal)	13900 mg/kg bodyweight

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1)

LD50 oral rat	344 mg/kg
ATE CLP (oral)	344 mg/kg bodyweight

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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: May have a narcotic effect at high concentrations.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: This product contains hazardous components for the aquatic environment.
Ecology - water	: Very toxic to aquatic life.

Ethanol (64-17-5)

LC50 fish 1	96h 14200 mg/l Pimephales promelas
LC50 other aquatic organisms 1	48h 5012 mg/l Ceriodaphnia dubia

Propan-2-ol (67-63-0)

LC50 fish 1	96h 9640 mg/l pimephales promelas
EC50 Daphnia 1	24h 9714 mg/l daphnia magna
LOEC (chronic)	1000 mg/l @8d algae

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1)

LC50 fish 1	96h 0.28 mg/l Pimephales promelas
EC50 Daphnia 1	48h 0.016 mg/l Daphnia magna
ErC50 (algae)	72h 0.049 mg/l Pseudokirchneriella subcapitata
NOEC (chronic)	21d 0.0042 mg/l Daphnia Magna
NOEC chronic fish	34d 0.032 mg/l Pimephales promelas

12.2. Persistence and degradability

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Persistence and degradability	The surfactant(s) contained in this preparation 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.
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Ethanol (64-17-5)

Persistence and degradability	biodegradable. Readily biodegradable in water.
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Propan-2-ol (67-63-0)

Persistence and degradability	Readily biodegradable.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No data available.
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Ethanol (64-17-5)

Log Kow	-0.35
Bioaccumulative potential	Slightly bioaccumulative.

Propan-2-ol (67-63-0)

Log Pow	0.05
Log Kow	< 4
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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Propan-2-ol (67-63-0)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not pierce or burn, even after use. Remove to an authorized waste treatment plant.

European List of Waste (LoW) code : 20 01 19* - pesticides
15 01 11* - metallic packaging containing a dangerous solid porous matrix (e.g. asbestos), including empty pressure containers

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1950

14.2. UN proper shipping name

Proper Shipping Name (ADR) : AEROSOLS

Transport document description (ADR) : UN 1950 AEROSOLS, 2.1, (D), ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

Class (ADR) : 2

Subsidiary risk (IMDG) : 2.1

Subsidiary risk (IATA) : 2.1

Danger labels (ADR) : 2.1



14.4. Packing group

Not applicable

14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (ADR) : 5F

Special provisions (ADR) : 190, 327, 344, 625

Transport category (ADR) : 2

Tunnel restriction code (ADR) : D

Limited quantities (ADR) : 1I

14.6.2. Transport by sea

EmS-No. (1) : F-D, S-U

14.6.3. Air transport

Instruction "cargo" (ICAO) : 203

Instruction "passenger" (ICAO) : 203/Y203

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

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list $\geq 0,1$ % / SCL

Contains no REACH Annex XIV substances

VOC content : 99.125 %

Allergenic fragrances > 0,01%:

CITRONELLOL	0.04%
GERANIOL	0.01%
LINALOOL	0.01%
BENZYL ALCOHOL	0.04%

15.1.2. National regulations

Water hazard class (WGK) : 2 - significant hazard to water

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1	Flammable gases, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product