

SAFETY DATA SHEET

According to EC regulations 1907/2006 (REACH), 1272/2008 (CLP) and 453/2010

Updated on: 01.03.2012

Cancels and replaces: 25.05.2011

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

1.1. Product identifier

Product Name **CARLYBIO**
REACH Registration No. No required

1.2. Relevant identified uses of the substance or mixture and uses advised against **Identified use(s):** Refrigerating and air conditioning system decontaminant
Uses advised against: Nothing know

1.3. Details of the supplier of the safety data sheet

CARLY
Zone Industrielle de Braille - 69380 Lissieu – France
www.carly-sa.com - Telephone: +33 (0) 478 476 120 - Fax: +33 (0) 478 473 698
E-mail address of person responsible for the Safety Data Sheet info@carly-sa.com

1.4. Emergency telephone number

Poison Centre INRS - Telephone: 01 45 42 59 59 in France
Emergency telephone - company +33 (0) 472 549 881 or +33 (0) 472 549 898 – Telephone numbers to be used only during the opening office hours from Monday to Friday.

SECTION 2: Hazards identification

The mixture is regulated according to Directive 1999/45/EC, their adaptations and annexes.

2.1. Classification of the substance or mixture According to Directive 1999/45/EC:
Xi – Irritant
Irritating to eyes and skin

2.2. Label elements According to Directive 1999/45/EC:
Warning statement Irritant

Hazard Pictogram



R Phrases R36/38 - Irritating to eyes and skin

S Phrases S2 - Keep out of reach of children
S23 - Do not breathe vapour
S24/25 - Avoid contact with skin and eyes
S35 - This material and its container must be disposed of in a safe way
S46 - If swallowed, seek medical advice immediately and show this container or label
S51 - Use only in well-ventilated areas.

Safety, health and environment classification are given by the following ingredients:
Benzalkonium chloride and Propan-2-ol.

2.3. Other hazards None to our knowledge.

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SECTION 3: Composition / Information on ingredients

3.2. Mixture

Chemical nature

Aqueous mixture of surfactants and alkaline agents

EC Classification No. 1272/2008/EC

Hazardous ingredients	CAS No.	EC No.	EINECS No.	Hazard pictograms Hazard statement	REACH Regulation No.	% W/W
Mixture of Benzalkonium chloride (<10% C8+C10, 50% C12, 19% C14, 9% C16, 8% C18)	68391-01-5 (majoritary)	-	269-919-4 (majoritary)	No required (mixture)	No required (mixture)	1 - 2%
Propan-2-ol	67-63-0	603-117-00-0	200-661-7	Flammable liquid- category 2 - H225 Eye irritation - category 2 - H319 Specific target organ toxicity - Single exposure - category 3 - H336	01-2119457558-25-xxxx	2 - 4 %

See section 16 for the full text for the H-Phrases above.

EC Classification No. 67/548/EEC

Hazardous ingredients	CAS No.	EC No.	EINECS No.	Hazard pictograms Hazard statement	REACH Regulation No.	% W/W
Mixture of Benzalkonium chloride (<10% C8+C10, 50% C12, 19% C14, 9% C16, 8% C18)	68391-01-5 (majoritary)	-	269-919-4 (majoritary)	C - Corrosive - R21/22 - R34 N - Dangerous for the Environment - R50	No required (mixture)	1 - 2%
Propan-2-ol	67-63-0	603-117-00-0	200-661-7	F - Easily flammable - R11 Xi - Irritant - R36 - R67	01-2119457558-25-xxxx	2 - 4 %

See section 16 for the full text for the R-Phrases above.

SECTION 4: First aid measures

In all case, where there is any doubt or if the symptoms persist, always consult a doctor.

4.1. Description of first aid measures

Inhalation: If the person feels unwell, move the affected person to the fresh air.

Skin contact: Wash immediately with plenty of water.

Eye contact: Rinse immediately and thoroughly, pulling the eyelids well away from the eye, at least 10 minutes. If irritation persists, consult an ophtalmologist.

Ingestion: Rinse out mouth with water. NEVER attempt to induce vomiting. Keep the person quite and resting, call a doctor, and show him the packaging or the label. Never give an unconscious person anything to drink.

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

Inhalation: There may be irritation of the throat and be coughing.

Skin contact: There may be irritation and redness.

Eye contact: There may be irritation and redness.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

4.3. Indication of immediate medical attention and special treatment needed

No immediate medical attention and no particular treatment are required in case of exposure.

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SECTION 5: Fire-fighting measures

- 5.1. Extinguishing Media** Suitable Extinguishing Media: All extinguishing media are suitable.
Unsuitable Extinguishing Media: None. In case of fire, use extinguishing media appropriated to surrounding areas.
- 5.2. Special hazards arising from the substance or mixture** Aqueous liquid, non-flammable does not present any particular risk in the event of a fire.
- 5.3. Advice for fire-fighters** Special protection equipments: Wear protective clothing to prevent contact with skin and eyes.
Additional indications: Do not dispose fire-fighting water in the environment.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures** Avoid contact with eyes and skin.
Wear glasses and gloves (against chemical aggression) during the operation.
- 6.2. Environmental precautions** For a spillage contain the spilled material by bunding.
Do not discharge into drains and rivers.
Do not allow product to spread into the environment.
Eliminate as stipulated in current local and national laws.
- 6.3. Methods and material for containment and cleaning up** Recovery: Use inert absorbent material.
Collect up the product and place it in a spare container correctly labeled.
Keep recovered product for subsequent disposal.

Absorb non-recoverable liquid with:
- dry sand
- saw-dust or an inert absorbent material
Do not discharge into drains or waterways without neutralizing.

Cleaning / decontamination: Wash with large amounts of water the contaminated area.
- 6.4. Reference to other sections** Individual protection equipment: see section 8.

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling** Avoid all excessive inhalation, prolonged contact with the skin, all contact with the eyes.
Do not eat and drink during use. Do not swallow.
Always wash your hands immediately after handling this product, and once again before leaving the workplace.
- 7.2. Conditions for safe storage, including any incompatibilities** Keep at room temperature (between 5 and 40°C)
Store: in a hermetically closed plastic container (original packaging), in cooled and well-ventilated area.
Storage life: stable under normal conditions.

Incompatible materials: Strong acids and oxidizing agents.
Do not mix with anionic and chlorine by-products.
- 7.3. Specific end use(s)** Primarily used for decontamination of refrigerating and air conditioning system: heat exchangers (condenser, evaporator) ; condensate pans.

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SECTION 8: Exposure controls / Personal protection

8.1. Control parameters

Occupational exposure limits

Propan-2-ol – CAS 67-63-0

France	VLCT-mg/m ³	VME-mg/m ³	VLE-ppm	VLE-mg/m ³
	-	-	400	980

8.2. Exposure controls

Technical measures of protection

Ensure that the area is sufficiently ventilated.

Personal protective equipment

- Respiratory protection: If the ventilation is suitable, it is not essential to wear respiratory equipment.
- Skin protection: Protective gloves are recommended (nitrile-rubber, neoprene, butyl)
- Eye/face protection: Safety goggles with waterproof side shields.
- Body protection: Suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General information

Form	Liquide
Appearance	Clear
Colour	Blue / purple
Odour	Eucalyptus
Odour threshold	No data available

Important information for health, safety and environment

pH at 20°C	8.0 ± 0.2
Melting point (°C)	> 0
Boiling point (°C)	> 90
Flash point (°C)	> 60
Evaporation rate	No data available
Solid/gas flammability (°C)	Not applicable
Explosive limit (% vol), lower	
upper	Not applicable
Vapour pressure (hPa) à 20°C	No data available
Relative vapour density (air=1)	No data available
Density altitude at 20°C	1000 kg/m ³
Solubility in water	Miscible in all proportions
Partition Coefficient (n-octanol/eau)	No data available
Auto ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity (mPa.s) at 20°C	No data available
Explosive properties	Not applicable
Combustive properties	Not applicable

9.2. Other information

No other relevant Physico-Chemical properties are known about this mixture to the best of our knowledge at this time.

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SECTION 10: Stability and reactivity

10.1. Reactivity	No dangerous reactions known under normal conditions of use
10.2. Chemical stability	Stable under normal conditions of storage and use (ambient temperature)
10.3. Possibility of hazardous reactions	No data available
10.4. Conditions to avoid	Heat
10.5. Incompatible materials	Strong acids and oxidizing agents Do not mix with anionic and chlorine by-products.
10.6. Hazardous decomposition products	Possible mixture decomposition at high temperature: toxic smoke formation

SECTION 11: Toxicological information

11.1. Information on toxicological effects	<p>We have no quantitative data about the mixture toxicity.</p> <p>Acute toxicity Benzalkonium chloride: DL50-oral-rat = 650mg/kg ; Propan-2-ol : DL50-oral-rat: 5280mg/kg ; CL50-inhalation-rat: 72.6mg/l ; DL50-dermale-rabbit: 12800mg/kg</p> <p>Corrosion / Irritation Benzalkonium chloride: Corrosive effect on skin and mucous membrane. Very corrosive on eyes. Propan-2-ol: No irritation on skin (rabbit) – Irritant for eyes (rabbit)</p> <p>Sensitisation Benzalkonium chloride: No data available. Propan-2-ol: No sensitising properties (Guinea pig, Buehler Test) Considering available data, the classification specifications are not fulfilled.</p> <p>Carcinogenic, mutagenic or toxic to reproduction Benzalkonium chloride and Propan-2-ol: No data available. Considering available data, the classification specifications are not fulfilled.</p> <p>Special toxicity to some organ targeted – unrepeatable or repeated exposure The mixture and these ingredients have reversible effects in the event of unrepeatable or repeated exposure.</p> <p>Toxicological information Irritant for eyes. Can cause dermatological problems with repeated or prolonged contact with the skin. On ingestion (in large quantities): Vomiting, digestive disorders.</p>
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SECTION 12: Ecological information

12.1. Toxicity	<p>We have no quantitative data about ecological effect of mixture.</p> <p>Ecotoxic effects: Benzalkonium chloride: The lowest ecotoxic effect (CL50, CE50) known is 0.016mg/l - CE50 (Daphnia) : 0.016mg/l Propan-2-ol: CL50 (fish) – 96h : 9640mg/l ; CE50 (Daphnia) – 48h : 13299mg/l CE50 (algae) – 72h : >1000mg/l ; CE10 (bacteria) – 18h : 5175mg/l</p>
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SECTION 12: Ecological information (continued)

- 12.2. Persistence and degradability** Benzalkonium chloride: Easily biodegradable
Propan-2-ol: 95% after 21 days (OCDE 301E)
The mixture is easily biodegradable.
- 12.3. Bioaccumulative potential** Benzalkonium chloride: No data available
Propan-2-ol: Show no bioaccumulative
- 12.4. Mobility in soil** Benzalkonium chloride: No data available
Propan-2-ol: Moving in water-environment.
- 12.5. Results of PBT and vPvB assessment** No data available for Benzalkonium chloride and Propan-2-ol.
- 12.6. Other harmful effects** In case of manipulation and appropriate use, no ecological effect is feared for the mixture.
Not spread a large quantity in natural waters, waste water or soil.

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods**
- Product waste**
Chemical waste are special-waste and are regulated.
For the waste disposal, ask the authorities or contract out an approved company regarding disposal
- Packaging**
Carefully rinse the empty packaging, before recycling.

SECTION 14: Transport information

Mixture not classified as dangerous for the transport.

- 14.1. UN number** Not applicable
- 14.2. Proper Shipping Name** Not applicable
- 14.3. Transport hazard class(es)** Not applicable
- 14.4. Packing group** Not applicable
- 14.5. Environmental hazards** Not applicable
- 14.6. Special precautions for user** Not applicable
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable

The above regulatory prescriptions are those valid on the date of publication of this sheet.

However, given the possible evolution of transport regulations for hazardous materials, in case the present sheet is dating back to more than 12 months ago, it would be advisable to check their validity with your commercial agency.

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SECTION 15: Regulatory information

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

The mixture is subjected to "transitional" system, according to the Biocide Products Directive no. 98/8/EC.

- Registered by MEDDTL (French Ministry of Ecology, Sustainable Development, Transport and Housing) under the number 23606
- Contains 2.0g/100g quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides (CAS 68391-01-5 majoritary) – TP2
- INRS registration (French National Institute for Research and Safety).

The mixture is compliant with the French legislation on September 08, 1999, on the cleaning of foodstuff containers.

For foodstuff containers, a rinse with drinking water is compulsory.

15.2. Chemical safety assessment No Chemical Safety Report realized for this mixture.

SECTION 16: Other information

H-Statements used in Section 3

H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness

R-Phrases used in Section 3

R11 - Highly flammable

R21/22 - Harmful in contact with skin and if swallowed

R34 - Causes burns

R36 - Irritating to eyes

R50 - Very toxic to aquatic organisms

R67 - Vapours may cause drowsiness and dizziness

Legend

VLE – Term Exposure Limit

VME – Medium Term Exposure Limit

VLCT – Short Term Exposure Limit

TWA – Time Weighted Average

STEL – Short Term Exposure Limit

LD50 - Lethal Dose, 50%

LC50 - Lethal Concentration, 50%

EC50 – Effective Concentration, 50 %

OECD - Organisation for Economic Co-operation and Development

PBT – Persistent, Bioaccumulative and Toxic

vPvB – very Persistent and very Bioaccumulative

Product for professional use only.

For more information regarding the use of this product please refer to the technical information or contact the sales department in your region.

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SECTION 16: Other information (continued)

Update

This sheet was updated (refer to the date at the top of the first page)

This Safety Data Sheet was updated in accordance with Directive 1999/45/EC and 1272/2010/EC, the regulation 453/2010/EU (amendment on Annex II of 1907/2006/EC) and their adaptations.

The following sections contain revisions or new statements: 1 à 16.

All information and instructions provided in this Material Safety Data Sheet is based on the current state of scientific and technical knowledge at the date indicated on the present MSDS, but does not constitute a guarantee of the properties of the product and is not a contractual legal report.

The safety data sheet has been written in conformity with the article 31 and the Annex II of the UE REACH regulation, and the amendments concerning the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances and mixtures.

It is the responsibility of persons in receipt of this MSDS to ensure that all people who may use, handle, dispose or in any way come in contact with the product understands this information.

This sheet completes the technical sheets but it does not replace them. The information given is based on our knowledge of this product. It is given in good faith. This document should not be considered as a guarantee of specifications. The users attention is drawn to the risks possibly incurred by using the product for any other purpose than that for which it was intended. This document does not in any way excuse the user from knowing and applying all the regulations governing his activity for the handling, usage, application, storage, transport, and waste disposal of the product. It is the sole responsibility of the user to take all precautions required in handling the product. The mandatory regulations mentioned are only intended to help the user to fulfill his obligations regarding the use of hazardous products. This listing must not be considered as exhaustive. It does not exonerate the user from ensuring that other legal obligations than those mentioned do not exist, relating to the use and storage of the product for which he solely is responsible.

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