

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

1.1. Product identifier

Product form : Aqueous solution
Product name : CARLYBIO
Type of product : Biocide

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Refrigerating and air conditioning system decontaminant (heat exchangers, condensate pans...)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

CARLY
ZI de Braille
69380 LISSIEU - FRANCE
T +33 (0)4 78 47 61 20 - F +33 (0)4 78 47 36 98
info@carly-sa.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number
UNITED KINGDOM	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Show CLP information + DPD classification in section 2.1

Skin Irrit. 2 H315
Eye Irrit. 2 H319
Aquatic Chronic 2 H411

Full text of H-phrases: 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) :



GHS07

GHS09

Signal word (CLP) : Warning
Hazard statements (CLP) : H315 - Causes skin irritation
H319 - Causes serious eye irritation
H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (CLP) : P102 - Keep out of reach of children
P264 - Wash Hands and forearms thoroughly after handling
P273 - Avoid release to the environment
P280 - Wear eye protection, protective gloves
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

CARLYBIO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (Reach) – (EU) No. 2015/830

P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3. Other hazards

No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-propanol	(CAS No) 67-63-0 (EC no) 200-661-7 (EC index no) 603-117-00-0 (REACH-no) 01-2119457558-25	2 - 3	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) 01-2119965180-41	1 - 2	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=100000) Aquatic Chronic 1, H410 (M=100000)

Full text of H-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Wash immediately with lots of water.
First-aid measures after inhalation	: Remove the victim into fresh air.
First-aid measures after skin contact	: Do not apply (chemical) neutralizing agents. Remove clothing while washing. Wash immediately with lots of water.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Immediately consult a doctor/medical service. Call Poison Information Centre (www.big.be/antigif.htm). Do not give chemical antidote.

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

Symptoms/injuries after inhalation	: Dry/sore throat. Cough.
Symptoms/injuries after skin contact	: Skin irritation.
Symptoms/injuries after eye contact	: Irritation of the eye tissue.
Chronic symptoms	: Dry skin.

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	: Non-flammable. Non combustible. EXTINGUISHING MEDIA FOR SURROUNDING FIRES: Adapt extinguishing media to the environment.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not applicable.
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5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Face-shield. See "Material-Handling" to select protective clothing.
Emergency procedures	: Mark the danger area. Wash contaminated clothes.

6.1.2. For emergency responders

Protective equipment	: Wear protective gloves/protective clothing/eye protection/face protection.
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6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapour with water curtain. Take account of toxic/corrosive precipitation water. Heat exposure: dilute toxic gas/vapour with water spray.
- Methods for cleaning up : Take up liquid spill into inert absorbent material, e.g.: sand/earth. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

Waste has to be evacuated according to the section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin, eyes and clothing.
- Hygiene measures : Always wash hands after handling the product. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage temperature : 5 - 40 °C
- Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.
- Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids.
- Storage area : Keep container tightly closed in a cool, well-ventilated place.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : Store in original container.

7.3. Specific end use(s)

Disinfectant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-propanol (67-63-0)		
United Kingdom	Local name	Propan-2-ol
United Kingdom	WEL TWA (mg/m³)	999 mg/m³
United Kingdom	WEL TWA (ppm)	400 ppm
United Kingdom	WEL STEL (mg/m³)	1250 mg/m³
United Kingdom	WEL STEL (ppm)	500 ppm

8.2. Exposure controls

- Materials for protective clothing : Wear suitable protective clothing
- Hand protection : Gloves. Butyl rubber. Nitrile rubber (NBR)
- Eye protection : Chemical goggles or safety glasses.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear
- Colour : Green
- Odour : Lemon
- Odour threshold : No data available
- pH : 8,5 +/- 0,5

CARLYBIO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (Reach) – (EU) No. 2015/830

Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 0 °C
Freezing point	: No data available
Boiling point	: 98°C (ISO4925)
Flash point	: > 60 °C
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1000 kg/m³ 20°C
Solubility	: Completely soluble.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: <500 mPa.s, 5°C (ASTM2983)
Explosive properties	: Not applicable
Oxidising properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available.

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.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

No additional information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-propanol (67-63-0)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	12870 mg/kg
LC50 inhalation rat (mg/l)	73 mg/l/4h
LC50 inhalation rat (ppm)	2935 ppm/4h
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1)	
LD50 oral	426 mg/kg bodyweight
LD50 dermal	2300 mg/kg bodyweight
ATE oral	500,000 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

CARLYBIO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (Reach) – (EU) No. 2015/830

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

2-propanol (67-63-0)	
LC50 fishes 1	4200 mg/l (96 h, RASBORA HETEROMORPHA, FLOW-THROUGH SYSTEM)
LC50 other aquatic organisms 1	4600 mg/l (24 h, DAPHNIA MAGNA)
EC50 Daphnia 1	> 10000 mg/l (48 h, DAPHNIA MAGNA)
EC50 other aquatic organisms 1	1800 mg/l (72 h, ALGAE, CELL NUMBERS)
LC50 fish 2	9640 mg/l (96 h, PIMEPHALES PROMELAS, FLOW-THROUGH SYSTEM)
LC50 other aquatic organisms 2	1099 mg/l (48 h, CRANGON CRANGON, STATIC SYSTEM)
EC50 Daphnia 2	13299 mg/l (48 h, DAPHNIA MAGNA)
EC50 other aquatic organisms 2	> 1000 mg/l (72 h, SCENEDESMUS SUBSPICATUS, GROWTH)
Threshold limit other aquatic organisms 1	141 mg/l (384 h, DAPHNIA MAGNA)
Threshold limit other aquatic organisms 2	1050 mg/l (16 h, PSEUDOMONAS PUTIDA, TOXICITY TEST)
Threshold limit algae 1	1800 mg/l (168 h, SCENEDESMUS QUADRICAUDA, TOXICITY TEST)
Threshold limit algae 2	1000 mg/l (192 h, MICROCYSTIS AERUGINOSA, TOXICITY TEST)
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1)	
LC50 fishes 1	0,28 mg/l
CE50 Daphnia magna	0.016 mg/l (48 h)
CE50 crustacés	0.016 mg/l (48 h)
CE50 Algae	0,03 mg/l (72 h)

12.2. Persistence and degradability

2-propanol (67-63-0)	
Biochemical oxygen demand (BOD)	1,19 g O ₂ /g substance
Chemical oxygen demand (COD)	2,23 g O ₂ /g substance
ThOD	2,40 g O ₂ /g substance
BOD (% of ThOD)	49 % ThOD

12.3. Bioaccumulative potential

CARLYBIO	
Bioaccumulative potential	No bioaccumulation data available.
2-propanol (67-63-0)	
Log Pow	0,05

12.4. Mobility in soil

2-propanol (67-63-0)	
Surface tension	0,021 N/m (25°C)

12.5. Results of PBT and vPvB assessment

No additional information available.

12.6. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Regional legislation (waste) : Disposal must be done according to official regulations.
- Waste treatment methods : Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
- Sewage disposal recommendations : Avoid any discharge of the product into waste water.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. (ADR) : 3082

CARLYBIO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (Reach) – (EU) No. 2015/830

UN-No.(IATA)	: 3082
UN-No. (IMDG)	: 3082
UN-No.(ADN)	: 3082

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IATA)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (ADN)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (ADR)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS ; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides), 9, III, (E)

14.3. Transport hazard class(es)

Class (ADR)	: 9
Classification code (ADR)	: M6
Class (IATA)	: 9
Class (IMDG)	: 9
Class (ADN)	: 9
Classification code (ADN)	: M6
Danger labels (ADR)	: 9



Hazard labels (IATA)	: 9
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Danger labels (IMDG)	: 9
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Danger labels (ADN)	: 9
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14.4. Packing group

Packing group (ADR)	: III
Packing group (IATA)	: III
Packing group (IMDG)	: III
Packing group (ADN)	: III

14.5. Environmental hazards

Dangerous for the environment	: Yes
Marine pollutant	: Yes



Other information	: No supplementary information available.
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14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.)	: 90
Classification code (ADR)	: M6

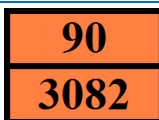
CARLYBIO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (Reach) – (EU) No. 2015/830

Orange plates

:



Special provision (ADR) : 274, 335, 601
Transport category (ADR) : 3
Tunnel restriction code (ADR) : E
Limited quantities (ADR) : 5L
Excepted quantities (ADR) : E1
EAC code : •3Z

14.6.2. Transport by sea

Special provision (IMDG) : 274, 335
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
Packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP2, TP29
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F
Stowage category (IMDG) : A
MFAG-No : 171

14.6.3. Air transport

CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
PCA packing instructions (IATA) : 964
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA max net quantity (IATA) : 450L
PCA Excepted quantities (IATA) : E1
Special provision (IATA) : A97, A158
ERG code (IATA) : 9L

14.6.4. Inland waterway transport

Special provision (ADN) : 274, 335, 61
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0
Carriage prohibited (ADN) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

Biocide regulation UE 528/2012

Type of product (Biocide) 2 - Disinfectants and algaecides not intended for direct application to humans or animals

Component	CAS No	%
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	1.8%

CARLYBIO

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (Reach) – (EU) No. 2015/830

Seveso Information : /

15.1.2. National regulations
No additional information available.

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information
Indication of changes:
Physical and chemical properties (Section 9).

Full text of H- and EUH-phrases::

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
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. Liq. 2	Flammable liquids, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
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

SDS (REACH Annex II)
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