

SAFETY DATA SHEET

according to Commission Regulation (EU) 2020/878 as amended



HVAC Internal Bioclean

Creation date 18th April 2023
Revision date Version 1.0

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

1.1. Product identifier

Substance / mixture HVAC Internal Bioclean mixture
Number 7142/17 z dnia 19.03.2019 r.

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

Mixture's intended use

Disinfection of surfaces in contact and not in contact with food, including evaporator surfaces and condensate trays in indoor units of air conditioning and air conditioning-ventilation devices, as well as air filters; the product exhibits bactericidal, fungicidal, sporicidal, and limited virucidal activity against enveloped viruses.

Main intended use

PP-BIO-2 Disinfectants and algaecides not intended for direct application to humans or animals

Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	Liquid Technologies Sp. z o.o.
Address	ul. Gdańska 13, Wrocław, 50-344 Poland
Identification number (CRN)	368412743
VAT Reg No	PL8982237296
Phone	+48 518 90 92 94
E-mail	info@ltchem.pl
Web address	www.ltchem.pl

Competent person responsible for the safety data sheet

Name	Liquid Technologies Sp. z o.o.
E-mail	info@ltchem.pl

1.4. Emergency telephone number

European emergency number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Aquatic Chronic 1, H410

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram



Signal word

Warning

Hazard statements

H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements

P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/container to properly labeled waste containers in accordance with national regulations.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 68424-85-1 EC: 270-325-2	alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))	≤0,5	Acute Tox. 4, H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	
Index: 605-019-00-3 CAS: 5392-40-5 EC: 226-394-6	2,6-Octadienal, 3,7-dimethyl-	<0,0001	Skin Irrit. 2, H315 Skin Sens. 1, H317	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. If irritation occurs, rinse the skin with a stream of water.

If in eyes

Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do.

If swallowed

Rinse out the mouth with clean water. In the event of issues, find medical help.

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

If inhaled

Not expected.

If on skin

Not expected.

If in eyes

Not expected.

If swallowed

Not expected.

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

Symptomatic treatment.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

DNEL

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Inhalation	3.96 mg/m ³	Chronic effects systemic		ECHA
Consumers	Dermal	5.7 mg/kg bw/day	Chronic effects systemic		ECHA

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8.2. Exposure controls

Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

It is not needed.

Skin protection

Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	green
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	8-9 (undiluted at 20 °C)
Kinematic viscosity	data not available
Solubility in water	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1,0 g/cm ³ at 20 °C
Relative vapour density	data not available
Particle characteristics	does not apply to mixtures

9.2. Other information

not available

SECTION 10: Stability and reactivity

10.1. Reactivity

not available

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

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10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Route of exposure	Parameter	Value	Exposure time	Species	Sex	Value determination
Oral	LD ₅₀	344 mg/kg		Rat (<i>Rattus norvegicus</i>)	F/M	
Dermal	LD ₅₀	3340 mg/kg	24 hours	Rabbit	F/M	

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Route of exposure	Parameter	Value	Exposure time	Species	Sex	Value determination
Oral	ATE	68760 mg/kg				Calculation of value

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Sensitization

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Route of exposure	Result	Method	Exposure time	Species	Sex
	Not sensitizing	OECD 406		Guinea-pig (<i>Cavia aperea f. porcellus</i>)	F/M

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Mutagenicity

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Result	Method	Exposure time	Specific target organ	Species	Sex
Negative	OECD 471			Bacteria (<i>Salmonella typhimurium</i>)	

Germ cell mutagenicity

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

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Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2. Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Harmful to aquatic life with long lasting effects.

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Parameter	Method	Value	Exposure time	Species	Environment
EC ₅₀	EU C.2 (92/69/EEC)	0.016 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water
EC ₅₀	OECD 201	0.049 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)	Fresh water
EC ₅₀	OECD 209	7.75 mg/l	3 hours	Bacteria	Fresh water
EC ₅₀	OECD 201	0.03 mg/l	96 hours	Algae (Pseudokirchneriella subcapitata)	Fresh water
EC ₅₀	EU C.2 (92/69/EEC)	0.0059 ppm	48 hours	Daphnia (Daphnia magna)	Fresh water
LC ₅₀	OECD 203	1.28 mg/l	96 hours	Fish (Cyprinus variegatus)	Salt water
LC ₅₀	OECD 203	0.515 mg/l	96 hours	Fish (Lepomis macrochirus)	Fresh water
LC ₅₀	OECD 203	0.28 mg/l	96 hours	Fish (Pimephales promelas)	Fresh water

Chronic toxicity

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Parameter	Method	Value	Exposure time	Species	Environment
NOEC	EPA OPP 72-4	0.0042 mg/l	21 days	Daphnia (Daphnia magna)	
NOEC	EPA OPP 72-4	0.0332 mg/l	96 hours	Fish (Pimephales promelas)	Fresh water

12.2. Persistence and degradability

Biodegradability

alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301B	95.5 %	28 days		Easily biodegradable
	OECD 301D	>60 %	28 days		Easily biodegradable

No data for the mixture.

12.3. Bioaccumulative potential

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alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]
Log Pow	0.5				
BCF	67.62				

No data for the mixture.

12.4. Mobility in soil

No data for the mixture.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling. The waste code should be assigned at the place of its production.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Packaging waste type code

15 01 02 plastic packaging

SECTION 14: Transport information

14.1. UN number or ID number

not subject to transport regulations

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not available

14.7. Maritime transport in bulk according to IMO instruments

not relevant

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SECTION 15: Regulatory information

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

Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products, as amended. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

A safety assessment for the mixture is not required.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to properly labeled waste containers in accordance with national regulations.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry

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LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
log K _{ow}	Octanol-water partition coefficient
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitization

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.
