

1. PRODUCT IDENTIFICATION

Product Name: ALGENTECH™
 Product Code: ALGENTECH
 Manufacturer/Supplier: RubberTech™

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 respectively UN GHS



Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
 Eye Dam. 1 H318 Causes serious eye damage.



Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.
 Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



Acute Tox. 4 H302 Harmful if swallowed.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 respectively UN GHS

The product is labelled according to the CLP regulation.

Hazard Pictograms



GHS05



GHS07



GHS09

Signal word Danger

Hazard-determining components of labelling:

Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides

Hazard statements

H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
 P391 Collect spillage.

2.3 Other hazards none

3. COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous Components:

CAS: 68424-85-1 EINECS: 270-325-2	Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides Alternative CAS numbers: 85409-22-9, 63449-41-2 Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1) Acute Tox. 4, H302	10 - 25%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	5 - 10%
CAS: 90-43-7 EINECS: 201-993-5	biphenyl-2-ol Aquatic Acute 1, H400 (M=1); Aquatic Chronic 1, H410 (M=1) Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	3 - 5%

Additional information: Hazard statements see section 16.

4. FIRST-AID MEASURES

4.1 Description of first aid measures

Note: Personal protection for the First Aider.

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact

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

After eye contact: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an eye specialist immediately.

After swallowing:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
Bring vomiting person into recovery position.
Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Corrosive damage to gastro-intestinal tract.

Information for doctor: Probable mucosal damage may contraindicate the use of gastric lavage.

Danger Danger of gastric perforation.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with activated carbon.
Rinse eyes thoroughly with physiological saline.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents: Water spray jet, extinguishing powder, CO₂, foam.

Unsuitable extinguishing agents for reasons of safety: None

5.2 Special hazards arising from the substance or mixture

In case of fire, toxic incineration products may be released such as:

Carbon monoxide (CO)

Hydrogen chloride (HCl)

Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire fighting water separately. It must not enter drains.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

High risk of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

When selecting the protective suit attention has to be made to the complete and safe protection of skin and mucous membranes. Impermeable protective clothes, protective boots made of neoprene, complete face protection and nitrile-rubber-gloves with long tops should be worn.

6.2 Environmental precautions:

As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water.

Dam and absorb spillage with chemical binder.

Inform authorities in case of contamination of water or sewage system.

6.3 Methods and material for containment and cleaning up:

Collect large amounts in suitable container. Cover the rest with absorbent, mix intensively and collect mechanically. Dispose of contaminated material as waste according to item 13. Provide adequate ventilation.

Decontamination procedure: Quats are incompatible with anionic compounds, e. g. with anionic surfactants. If product is released unintentionally into waste water, drain the contaminated waste water and collect it in an appropriate container. Adjust with sodium lauryl sulphate solution (concentration twice as high as the active ingredient in the wastewater) to a mixture ratio of 1:1.

Request further instructions from the supplier. Polluted surfaces can be decontaminated with a 10% sodium lauryl sulphate solution.

6.4 Reference to other sections None**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Provide good room ventilation or local exhaust ventilation at the workplace.

Handle product in closed systems preferably.

Assess hazards arising from work equipment and work places.

Information about protection against explosion and fire:

Traces of flammable substances may collect in the voids of closed systems.

Keep ignition sources clear.

Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers:

Ensure sufficient ventilation.

Should be stored in the delivery-container preferably.

Keep containers tightly sealed.

Information about suitable materials for vessels and piping can be requested from our sales department Tel.: 087 094 8092

Information about storage in a common storage facility: none

Further information about storage conditions:

If the product solidifies at low temperatures, it can be restored by slowly warming the product. The effectiveness is not affected hereby.

Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

Minimum storage temperature: 10 °C

7.3 Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Components with critical values that require monitoring at the workplace:

67-63-0 propan-2-ol

PEL (USA)	980 mg/m ³ , 400 ppm Short-term value: 1225 mg/m ³ , 500 ppm
REL (USA)	Long-term value: 980 mg/m ³ , 400 ppm
TLV (USA)	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI

Additional information: Information valid at the time of review of safety data sheet.

8.2 Exposure controls

Technical protective equipment:

In case of contamination devices to rinse eyes or skin immediately under running water must be available.

Personal protective equipment

General protective and hygienic measures:

Avoid contact with the eyes and the skin.

Wash hands during work breaks and at the end of the shift.

Use skin cream for skin protection.

Provide skin protection plan.

Respiratory protection: Not required



Hand protection: Chemical protective gloves (EN ISO 374-1:2016)

Check the condition of protective gloves after each use for any damages like holes, cuts or tears. Do not wear protective gloves longer than necessary.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves Nitrile rubber, NBR

Penetration time of glove material:

Thickness: 0.4 mm; break-through time: 480 min; material: Nitrile; permeation: level 6

Gloves made of the following materials are not suitable:

Gloves for mechanical protection do not provide protection against chemicals.



Eye protection: Face shield/visor (EN 166:2001)

Use visor in combination with goggle.



Body protection: Protective clothing (EN ISO 13688:2013)

Full head, face and neck protection

Risk management measures

The operators shall be instructed adequately.

The workplace shall be inspected regularly by competent personnel e.g. the safety representative.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Colour: Yellowish / Clear
Odour: Alcoholic
Odour threshold: Not relevant for safety

Important health, safety and environmental information:

This product does not sustain combustion (S 3525 - Test L.2 UN Recommendations on the transport of dangerous goods). There is no need to classify with H 226 (annex I, item 2.6.4.5 CLP).

pH-value: ca. 8

Change in condition

Melting point/freezing point: Not determined

Initial boiling point and boiling range: Not determined

Flash point: 39 °C (ISO 13736 - S 3536)

Flammability (solid, gas): Not applicable

Auto ignition temperature: Not determined

Decomposition temperature: Not determined.

Self-inflammability: Product is not self-igniting.

Explosive properties: Product is not explosive. However, formation of explosive air/gas mixtures is possible.

Critical values for explosion:

Lower: 2.0 Vol % (CAS: 67-63-0)

Upper: 1 2.0 Vol % (CAS: 67-63-0)

Oxidising properties None

Vapour pressure at 20 °C: 48 hPa (CAS: 67-63-0)

Density at 20 °C: 0.980 ± 0.010 g/cm³

Relative density (D₄²⁰): Not determined

Vapour density: Not relevant for safety

Evaporation rate: Not relevant for safety

Solubility in / Miscibility with

Water: Fully miscible

Partition coefficient: n-octanol/water: see section 12

Viscosity:

dynamic: Not determined

9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

The evaluation of the relevant available information does not show an indication of any metal corrosive property.

10.2 Chemical stability

Conditions to be avoided:

Before handling, the product should not be diluted or mixed with other chemicals, in order to avoid any negative influences on the ingredient(s).

Minimum shelf life:

24 months from production date, if stored at a temperature of about 20°C.

- 10.3 Possibility of hazardous reactions** No dangerous reactions known.
- 10.4 Conditions to avoid** No further relevant information available.
- 10.5 Incompatible materials:** Anionic compounds
- 10.6 Hazardous decomposition products:** None, if storage and handling is done according to specification.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Acute toxicity estimates (ATE) or LD ₅₀ /LC ₅₀ values:		
oral	ATE	1,985 mg/kg (calculated)
dermal	ATE	> 5,000 mg/kg (calculated)
inhalative	ATE mist/dust	> 5 mg/l, 4h (calculated)

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/irritation:

Causes serious eye damage.

Sensitisation:

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

Results of studies:	
68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides	
OECD 406	(Guinea pig) not sensitising - S 480
90-43-7 biphenyl-2-ol	
OECD 406	(Guinea pig) not sensitising - literature

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:	
68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
EC ₁₀ / 72 h	0.0025 mg/l (Selenastrum capricornutum) (OECD 201) S 470
EC ₅₀ / 72 h	0.02 mg/l (Selenastrum capricornutum) (OECD 201) S 470
EC ₅₀ / 48 h	0.016 mg/l (Daphnia) Dossier (REACH)
LC ₅₀ / 96 h (static)	0.85 mg/l (rainbow trout) (OECD 203) S 469
NOEC / 21 d	0.025 mg/l (Daphnia) (OECD 211) S 575
NOEC / 28 d 0.	0322 mg/l (fathead minnow) (U.S. EPA FIFRA 72-4) Dossier (REACH)
90-43-7 biphenyl-2-ol	
EC ₅₀ / 72 h	3.57 mg/l (Pseudokirchneriella subcapitata) (OECD 201) literature
EC ₅₀ / 48 h	2.7 mg/l (Daphnia) literature
LC ₅₀ / 96 h	4.5 mg/l (Danio rerio) literature
NOEC / 21 d	0.009 mg/l (Daphnia) (OECD 211) literature
	0.036 mg/l (fathead minnow) literature
NOEC / 72 h	0.468 mg/l (Pseudokirchneriella subcapitata) (OECD 201) literature

Evaluation:

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

Toxicity on activated sludge organisms:	
68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
EC ₂₀ / 0.5 h	5 mg/l (OECD 209) S 2020
90-43-7 biphenyl-2-ol	
EC ₅₀ / 3 h	56 mg/l (Activated Sludge) (OECD 209) Dossier (REACH)

Evaluation:

Depending on concentration, toxic effects on activated sludge organisms are possible.

12.2 Persistence and degradability

Degree of elimination:

Rapid degradability of organic substances:	
68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
OECD 301 D Closed-Bottle-Test	> 60 % S 472
90-43-7 biphenyl-2-ol	
OECD 301 B CO ₂ -Evolution	> 70 % literature

Evaluation: The component(s) is (are) rapidly degradable.

Behaviour in sewage treatment plants:	
68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
OECD 303 A: Activated Sludge Units	> 90 % S 1272

Evaluation: The substances are biodegradable/eliminable in activated sludge units.

12.3 Bioaccumulative potential

BCF / LogKow:	
68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
OECD 305 Bioconcentration factor	79 (Fish) Dossier (REACH)
OECD 107 LogKow (Shake Flask Method)	2.88 (n-octanol/water) S 2522
90-43-7 biphenyl-2-ol	
OECD 107 LogKow (Shake Flask Method)	3.18 (n-octanol/water) literature
Bioconcentration factor BCF	22 literature
OECD 117 Log Kow Partition Coefficient	3.18 (n-octanol/water) literature

Evaluation: Not worth-mentioning accumulating in organisms

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: This mixture does not contain substances that meet the PBT-criteria of REACH, annex XIII.

vPvB: This mixture does not contain substances that meet the vPvB-criteria of REACH, annex XIII.

12.6 Other adverse effects none

12.7 Additional information

Metals and their compounds (Directive 2006/11/EC): None

European Water Framework Directive (2000/60/EC):

The product does not contain any priority substances according WFD that require a water monitoring.

Absorbable organic halogen compounds (AOX - DIN EN ISO 9562 H 14):

The product does not contain substances, which can influence the AOX of waste water.

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Recommendation Hazardous waste. Separate waste disposal to be applied.

Contaminated packaging:

Recommendation:

Packaging can be reused or recycled after cleaning.

Cleaning liquid can be fed to a biological wastewater treatment plant.

Recommended cleaning agent: Water, if necessary with cleaning agent.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA UN1760

14.2 UN proper shipping name

ADR CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides), ENVIRONMENTALLY HAZARDOUS

IMDG CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides), MARINE POLLUTANT

IATA CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides)

14.3 Transport hazard class(es)

ADR

Class 8 (C9) Corrosive substances.
Label 8

MDG

Class 8 Corrosive substances.
Label 8

IATA

Class 8 Corrosive substances.
Label 8

14.4 Packing group

ADR, IMDG, IATA II

14.5 Environmental hazards:

Marine pollutant: Yes
Symbol (fish and tree)

Special marking (ADR): Symbol (fish and tree)

14.6 Special precautions for user

Warning: Corrosive substances.
Kemler Number: 80
EMS Number: F-A,S-B
Stowage Category B
Stowage Code SW2 Clear of living quarters.

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

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ)

Excepted quantities (EQ)

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

Transport category

Tunnel restriction code

IMDG

Limited quantities (LQ)

Excepted quantities (EQ)

2

E

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

IATA

Remarks:

Packing Instructions / max. net weight:
Passenger aircraft: 851 / 1 L; Cargo aircraft:
855 / 30 L

UN "Model Regulation":

UN 1760 CORROSIVE LIQUID, N.O.S.
(QUATERNARY AMMONIUM
COMPOUNDS,
BENZYL (C12 - C16) ALKYL DIMETHYL,
CHLORIDES), 8, II, ENVIRONMENTALLY
HAZARDOUS

15. REGULATORY INFORMATION

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I none

Qualifying quantity of dangerous substances for the application of lower-tier requirements: 100 t

Qualifying quantity of dangerous substances for the application of upper-tier requirements: 200 t

Information about limitation of use:

Take note of Directive 94/33/EC on the protection of young people at work.

Take note of Directive 92/85/EC on the safety and health of pregnant women at work.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This data is based on our current knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

Training hints

Further information regarding the directions for use can be found in the Product Data Sheet.

Classification according to Regulation (EC) No 1272/2008

The classification includes the relevant available information about the mixture or the substances contained therein.

The evaluation of the available information within the scope of classification refers to the forms and aggregate states in which the mixture has been placed on the market and will be used most likely.

ABBREVIATIONS:

Flam. Liq. 2: Flammable liquids - Category 2
Acute Tox. 4: Acute toxicity - oral - Category 4
Skin Corr. 1B: Skin corrosion/irritation - Category 1B
Skin Irrit. 2: Skin corrosion/irritation - Category 2
Eye Dam. 1: Serious eye damage/eye irritation - Category 1
Eye Irrit. 2: Serious eye damage/eye irritation - Category 2
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

Key literature references and sources for data:

Data source(s): Biocidal product dossier(s)

Own studies (reference to S-number).

*** Data altered since the previous version.**