

VULKAN MAX - 1117083

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : VULKAN MAX
Product code : 1117083.
UFI : QJRS-E66T-X30J-F4S3

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

For professional use only

PT3 biocide :	Disinfectant for veterinary uses
PT 4 biocide	Disinfectant for food and feed industry
PT 2 biocide	Disinfectant for surfaces not intended to be in contact with food

1.3. Details of the supplier of the safety data sheet

Registered company name : HUVEPHARMA SA.
Address : 34 rue Jean Monnet , Z.I. d'Etriché, Segré .49500.SEGRE-EN-ANJOU BLEU.France.
Telephone : +33 (0) 2 41 92 11 11. Fax : +33 (0) 2 41 61 04 59.
E-mail : info.france@huvepharma.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : France - INRS / ORFILA <http://www.centres-antipoison.net> .

Other emergency numbers

Belgium : National Poisons Control Center : 70 245 245
Bulgaria : Emergency Medicine N.I. Pirogov'' : +35 9 2 9154 233
Czech Republic : Toxikologické informacní středisko : +42 0 224 919 293 / +420 224 915 402
Denmark : Giftlinjen : 82 12 12 12
Germany : Giftnotruf der Charité : 030 / 19240
Greece : National Poison Information Center : (0030) 2107793777
Hungary : Információs szolgálat akut mérgezés esetén : (+36-80) 201-199
Ireland : Poisons Information Centre, Beaumont Hospital : 01 8092566 / 01 8379964
Italy : Ospedale Niguarda Ca'Granda : 02 661 010 29
Netherlands : National Poisons Information Center : 030-2748888
Poland : Poisons information Centre : (00 48)(58) 47 82 22 / (00 48)(58) 31 65 16
Portugal : Portugal CIAV inha telefónica exclusiva: +351 800 250 250
Romania : Biroul RSI si Informare Toxicologica : 021 318 36 06
Slovakia : National Toxicological Information Center : +421 2 5477 4166
Espana : Teléfono de emergencias: + 34 91 562 04 20 (Solo emergencias toxicológicas. Información en español (24h/365 días)
24h emergency consultation telephone in China :010-62129530
United Kingdom : NHS 111
Austria : Notruf 0-24 Uhr: 01 406 43 43

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Substance that is corrosive to metals, Category 1 (Met. Corr. 1, H290).
Acute oral toxicity, Category 4 (Acute Tox. 4, H302).
Acute inhalation toxicity, Category 4 (Acute Tox. 4, H332).
Skin corrosion, Category 1B (Skin Corr. 1B, H314).
Serious eye damage, Category 1 (Eye Dam. 1, H318).
Respiratory sensitisation, Category 1 (Resp. Sens. 1, H334).
Corrosive to the respiratory tract (EUH071).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).

VULKAN MAX - 1117083

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

2.2. Label elements

Biocidal mixture (see section 15).
Mixture for spray application.

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS05



GHS07



GHS08



GHS09

Signal Word :

DANGER

Product identifiers :

EC 270-325-2

EC 203-856-5

QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES
GLUTARAL

Hazard statements :

H290

May be corrosive to metals.

H302 + H332

Harmful if swallowed or if inhaled.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H410

Very toxic to aquatic life with long lasting effects.

EUH071

Corrosive to the respiratory tract.

Precautionary statements - Prevention :

P234

Keep only in original packaging.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P264

Wash ... thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...

Precautionary statements - Response :

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].

P304 + P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338

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

P310

Immediately call a POISON CENTER/doctor/...

P390

Absorb spillage to prevent material damage.

Precautionary statements - Disposal :

P501

Dispose of contents/container according to local regulation

2.3. Other hazards

The mixture contains substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

VULKAN MAX - 1117083

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 68424-85-1 EC: 270-325-2 REACH: 01-2119970550-39-xxxx QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 1		10 <= x % < 25
CAS: 111-30-8 EC: 203-856-5 REACH: 01-2119455549-26-xxxx GLUTARAL	GHS06, GHS05, GHS09, GHS08 Dgr Acute Tox. 3, H301 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 1, H330 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Chronic 2, H411	[1] [6]	10 <= x % < 25
CAS: 7173-51-5 EC: 230-525-2 DIDECYLDIMETHYLAMMONIUM CHLORIDE	GHS06, GHS05, GHS09 Dgr Met. Corr. 1, H290 Acute Tox. 3, H301 Skin Corr. 1B, H314 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 1		0 <= x % < 2.5

Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 68424-85-1 EC: 270-325-2 REACH: 01-2119970550-39-xxxx QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES		oral: ATE = 344 mg/kg BW
CAS: 111-30-8 EC: 203-856-5 REACH: 01-2119455549-26-xxxx GLUTARAL	STOT SE 3: H335 C>= 0.5%	inhalation: ATE = 0.28 mg/1 4h (dust/mist) oral: ATE = 200 mg/kg BW
CAS: 7173-51-5 EC: 230-525-2 DIDECYLDIMETHYLAMMONIUM CHLORIDE		dermal: ATE = 3342 mg/kg BW oral: ATE = 238 mg/kg BW

Nanoform

This mixture does not contain nanoparticles

Information on ingredients :

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are available.

[6] Substances of very high concern (SVHC).

VULKAN MAX - 1117083

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

In the event of inhalation of spray mist, seek medical attention immediately, showing the packaging or label.

In the event of an allergic reaction, seek medical attention.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

In the event of an allergic reaction, seek medical attention.

In the event of swallowing :

Do not give the patient anything orally.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

Information for the doctor :

Product formula is notified to INRS

Formula declared at the anti-poison center

N/A

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO₂)

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)
- hydrogen chloride (HCl)

VULKAN MAX - 1117083

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of asthma, allergies and/or chronic or periodical breathing difficulties should not, under any circumstances, use these mixtures.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Remove contaminated clothing and protective equipment before entering eating areas.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not inhale vapours.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool place away from(incompatible materials)

Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from food and drink, including those for animals.

Store away from light, heat and frost

Packaging

Keep strictly in original packaging

VULKAN MAX - 1117083

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
111-30-8			0.05 ppm	SEN; A4	

- Germany - AGW (BAuA - TRGS 900, 08/08/2019) :

CAS	VME :	VME :	Excess	Notes
111-30-8		0.05 ppm 0.2 mg/m ³		2(I)

- France (INRS - ED984 / 2020-1546) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
111-30-8	0.1	0.4	0.2	0.8	-	65.66

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
111-30-8	0.05 ppm 0.2 mg/m ³	0.05 ppm 0.2 mg/m ³		Sen	

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

GLUTARAL (CAS: 111-30-8)

Final use:

Exposure method:
 Potential health effects:
 DNEL :

Workers.

Inhalation.
 Long term local effects.
 0.25 mg of substance/m³

QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Final use:

Exposure method:
 Potential health effects:
 DNEL :

Workers.

Dermal contact.
 Long term systemic effects.
 5.7 mg/kg body weight/day

Exposure method:
 Potential health effects:
 DNEL :

Inhalation.
 Long term systemic effects.
 3.96 mg of substance/m³

Predicted no effect concentration (PNEC):

GLUTARAL (CAS: 111-30-8)

Environmental compartment:
 PNEC :

Soil.
 0.03 mg/kg

Environmental compartment:
 PNEC :

Fresh water.
 0.0025 mg/l

Environmental compartment:
 PNEC :

Sea water.
 0.00025 mg/l

Environmental compartment:
 PNEC :

Intermittent waste water.
 0.006 mg/l

Environmental compartment:
 PNEC :

Fresh water sediment.
 5.27 mg/kg

Environmental compartment:
 PNEC :

Marine sediment.
 0.527 mg/kg

VULKAN MAX - 1117083

Environmental compartment: Waste water treatment plant.
PNEC : 0.8 mg/l

QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Environmental compartment: Soil.
PNEC : 7 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.0009 mg/l

Environmental compartment: Sea water.
PNEC : 0.00096 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.00016 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 12.27 mg/kg

Environmental compartment: Marine sediment.
PNEC : 13.09 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 0.4 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

When spraying, wear a face shield in accordance with standard EN166.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

Breakthrough time : \geq 8 hours

Thickness : 0,35 mm (nitrile)

Thickness 0,5 mm (butyle)

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use.

VULKAN MAX - 1117083

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

Suitable type of protective boots :

In the event of minor spatter, wear protective boots or half-boots against chemical risks in accordance with standard EN13832-2.

In the event of prolonged contact, wear boots or half-boots with liquid-chemical-resistant and waterproof soles and uppers in accordance with standard EN13832-3.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling vapors.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

- A2 (Brown)

Particle filter according to standard EN143 :

- P2 (White)

If using the product by spraying wear appropriate respiratory material

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state : Fluid liquid.

Colour

green

Odour

Odour threshold : Not stated.

Melting point

Melting point/melting range : Not specified.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not specified.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash point interval : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not specified.

Decomposition temperature

Decomposition point/decomposition range : Not specified.

pH

pH : 2.80 +/-0.5.
Strongly acidic.

pH (aqueous solution) : a 1 % : 5.5 -6.0

Kinematic viscosity

Viscosity : 7,6 mm²/s a 20°C
Method for determining the viscosity :
OCDE Guideline 114 (Viscosity of liquids).

VULKAN MAX - 1117083

Solubility

Water solubility : Soluble.
Method for determining the water solubility :

CIPAC MT41

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Not relevant.

Density and/or relative density

Density : 1.047 +/- 0.002
Method for determining the density :
OCDE Guideline 109 (Density of liquids and solids).

Relative vapour density

Vapour density : Not stated.

9.2. Other information

Surface tension : 32.5 mN/m (25°C OECD115:1995)

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

Mixture which by chemical action can corrode and even destroy metals.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :

- frost

10.5. Incompatible materials

Keep away from :

- oxidising agents

- reducing agents

- strong bases

- sodium hypochlorite

- nitrates

- peroxides

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)

- carbon dioxide (CO₂)

chlorinated derivatives

SECTION 11 : TOXICOLOGICAL INFORMATION

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

Harmful if swallowed.

Harmful by inhalation.

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure between three minutes and one hour.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

VULKAN MAX - 1117083

May be corrosive to the respiratory tract

May cause hypersensitivity of the respiratory tracts with effects taking the form of asthma, rhinitis/conjunctivitis or alveolitis.

May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)

Oral route : LD50 = 238 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 = 3342 mg/kg
Species : Rabbit

GLUTARAL (CAS: 111-30-8)

Oral route : LD50 = 200 mg/kg
Species : Rat

Inhalation route (Dusts/mist) : LC50 = 0.28 mg/l
Species : Rat
Duration of exposure : 4 h

QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Oral route : LD50 = 344 mg/kg
Species : Rat

11.1.2. Mixture

Respiratory or skin sensitisation :

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 67-63-0 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)

Fish toxicity : LC50 = 0.19 mg/l
Factor M = 1
Species : Pimephales promelas
Duration of exposure : 96 h

NOEC = 0.032 mg/l

Crustacean toxicity : EC50 = 0.062 mg/l
Factor M = 10
Species : Daphnia magna
Duration of exposure : 48 h

NOEC = 0.01 mg/l
Factor M = 1
Species : Daphnia magna
Duration of exposure : 21 days
OECD Guideline 211 (Daphnia magna Reproduction Test)

Algae toxicity : ECr50 = 0.026 mg/l
Factor M = 10

VULKAN MAX - 1117083

Species : *Phaeodactylum tricornutum*
Duration of exposure : 72 h

QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)

Fish toxicity : LC50 = 0.515 mg/l
Factor M = 1

Crustacean toxicity : EC50 = 0.016 mg/l
Factor M = 10

Algae toxicity : ECr50 = 0.03 mg/l
Factor M = 10

NOEC = 0.009 mg/l
Factor M = 1

GLUTARAL (CAS: 111-30-8)

Fish toxicity : LC50 = 64 mg/l
Species : *Cyprinodon variegatus*
Duration of exposure : 96 h

NOEC > 1 mg/l
Duration of exposure : 48 h

Crustacean toxicity : EC50 = 6 mg/l
Species : Others
Duration of exposure : 48 h

Algae toxicity : ECr50 = 1.2 mg/l
Species : *Desmodesmus subspicatus*
Duration of exposure : 72 h

NOEC = 0.025 mg/l
Species : *Desmodesmus subspicatus*
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

GLUTARAL (CAS: 111-30-8)
Biodegradability : Rapidly degradable.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES (CAS: 68424-85-1)
Biodegradability : Rapidly degradable.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)
REACH Method C.5 (Degradation - Biochemical oxygen demand)

Biodegradability : Rapidly degradable.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

VULKAN MAX - 1117083

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

16 05 08 * discarded organic chemicals consisting of or containing dangerous substances

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 - ICAO/IATA 2021).

14.1. UN number or ID number

1903

14.2. UN proper shipping name

UN1903=DISINFECTANT, LIQUID, CORROSIVE, N.O.S.

(quatarnary ammonium compounds, benzyl- c12-16-alkyldimethyl, chlorides)

14.3. Transport hazard class(es)

- Classification :



8

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :



14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C9	III	8	80	5 L	274	E1	3	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	8	-	III	5 L	F-A. S-B	223 274	E1	Category A	-

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	III	852	5 L	856	60 L	A3 A803	E1
	8	-	III	Y841	1 L	-	-	A3 A803	E1

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

VULKAN MAX - 1117083

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(quaternary ammonium compounds, benzyl- c12-16-alkyldimethyl, chlorides)

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

- Container information:

No data available.

- Particular provisions :

No data available.

- Labelling for biocidal products (Regulation (UE) n° 528/2012) :

Name	CAS	%	Product-type
DIDECYLDIMETHYLAMMONIUM CHLORIDE	7173-51-5	16.70 g/kg	02
			03
			04
GLUTARAL	111-30-8	136.50 g/kg	02
			03
			04
QUATERNARY AMMONIUM COMPOUNDS, BENZYL- C12-16-ALKYLDIMETHYL, CHLORIDES	68424-85-1	152.80 g/kg	02
			03
			04

Product-type 2 : Disinfectants and algacides not intended for direct application to humans or animals.

Product-type 3 : Veterinary hygiene.

Product-type 4 : Food and feed area.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

VULKAN MAX - 1117083

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
NOEC : The concentration with no observed effect.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
ATE : Acute Toxicity Estimate
BW : Body Weight
DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
UFI : Unique formulation identifier.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TMP : French Occupational Illness table
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefährdungsklasse (Water Hazard Class).
GHS05 : Corrosion
GHS07 : Exclamation mark
GHS08 : Health hazard
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.