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ZAIQ-RF(HH)-01-19

# Safety Data Sheet



**Applicant name:** Lionser Medical Disinfectant (Hangzhou) Co., Ltd.

**Product Name:** Gelica® Quaternary Ammonium Salt Disinfectant

**Edit date:** 2020-04-03

**Edit institution:** Technology Center of Hangzhou Customs District

**Approver:** 检验检测部 李



1. Unless other wise stated, this test report is only responsible for the sample(s).
2. This test report can not be reproduced,except in full,without prior written permission of the lab.

**1. Identification of substance**

Product Name	Gelica® Quaternary Ammonium Salt Disinfectant
Trade Name	Gelica® Quaternary Ammonium Salt Disinfectant
Chemical Name	None
Recommended Use	1. Disinfection of the surface of hospital objects. 2. Disinfection of surfaces of public places, families and other objects. 3. Disinfection of filter (net), radiator and other surfaces of household air conditioner and automobile air conditioner.
Manufacturer	Lionser Medical Disinfectant (Hangzhou) Co., Ltd.
Address	No.1, Langsuo Road, Jiande, Zhejiang / 311607
Phone Number	+86-571-64793003
Fax Number	+86-571-64793014
WEB	None
Emergency Phone Number	+86-571-64793002 or call your nearest poison control centre

**2. Hazards identification**

GHS classification	Hazardous to the aquatic environment, acute hazard 3 Hazardous to the aquatic environment, long-term hazard 3
GHS Pictograms	—
Signal words	—
Hazard statements	H402:Harmful to aquatic life H412:Harmful to aquatic life with long lasting
Precautionary Statement Prevention	P273:Avoid release to the environment.
Precautionary Statement Response	—
Precautionary Statement Storage	—
Precautionary Statement Disposal	P501:Dispose of contents/container in according with local regulation.
Other hazards which do not result in classification	Not available.

**3. Composition/information on ingredients**

**Substances**

**Mixtures**

**Component Information**

Component	CAS number	EINECS number	Mass(%)
Purified water	7732-18-5	231-791-2	99.79%wt
Dodecyl dimethyl benzyl ammonium chloride	139-07-1	205-351-5	0.10%wt
Di octyl dimethyl ammonium chloride	5538-94-3	226-901-0	0.06%wt
Di decyl dimethyl ammonium bromide	2390-68-3	219-234-1	0.05%wt

4. First-aid measures	
NOTE TO PHYSICIAN	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
After inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Get immediate medical attention.
After skin contact	Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. If irritation persists, get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
After eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention immediately.
After ingestion	Rinse mouth. Give one or two glasses of water to drink. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Loosen tight clothing such as a collar, tie, belt or waistband. Do not use mouth-to-mouth method if victim ingested the substance. Seek immediate medical attention.
Most important symptoms/effects, acute and delayed	No data available.
5. Fire-fighting measures	
Suitable extinguishing agents	Water spray, alcohol-resistant foam, carbon dioxide, dry chemical powder, sandy soil.
Special hazards caused by the material, its products of combustion or flue gases	The decomposition products depend on temperature, air supply and other substances. Decomposition products may include but are not limited to: carbon monoxide and carbon dioxide, nitrogen oxides (NOx), hydrogen bromide gas, hydrogen chloride gas.
Protective equipment for fire-fighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
6. Accidental release measures	
Person-related safety precautions	Ensure adequate ventilation. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away.
Measures for environmental protection	Prevent further leakage or spillage if safe to do so. Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting	Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation. Clean contaminated surface thoroughly.

**Additional information** See Section 7 for information on safe handling  
 See section 8 for information on personal protection equipment.  
 See Section 13 for information on disposal.

**7. Handling and storage**

**Handling**

**Information for safe handling** Avoid contact with skin and eyes.  
 Avoid formation of dust and aerosols.  
 In case of insufficient ventilation, wear suitable respiratory equipment.

**Information about protection against explosions and fires** Keep away from heat, sources of ignition - No smoking.

**STORAGE**

**Requirements to be met by storerooms and containers** Keep away from light and airtight, and store in a dry place lower than 25 °C.

Use of explosion-proof lighting, ventilation facilities.

**Information about storage in one common storage facility** Store away from incompatible substances such as strong oxidizing agents, alkalis, strong acids, etc.

**Further information about storage conditions** Storage area should be equipped with appropriate variety and quantity of fire equipment, emergency treatment equipments and suitable materials for leakage.

**8. Exposure controls/personal protection**

**Limit Values for Exposure**

<b>Component</b>	<b>CAS number</b>	<b>ACGIH TLV-TWA</b>	<b>ACGIH TLV-STEL</b>	<b>NIOSH REL-TWA</b>	<b>NIOSH REL-STEL</b>
Dodecyl dimethyl benzyl ammonium chloride	139-07-1	N.E.	N.E.	N.E.	N.E.
Di octyl dimethyl ammonium chloride	5538-94-3	N.E.	N.E.	N.E.	N.E.
Di decyl dimethyl ammonium bromide	2390-68-3	N.E.	N.E.	N.E.	N.E.

**Appropriate engineering controls** Use adequate ventilation to keep airborne concentrations low.  
 Provide safety shower and eyewash facility.

**General protective and hygienic measures** Do not get this material in contact with eyes. Handle in accordance with good industrial hygiene and safety practice.  
 Wash hands before breaks and at the end of workday.

**Personal protective equipment** Splash goggles, gloves, protective clothing and a respirator.

**Breathing equipment** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Protection of hands** Wear appropriate chemical resistant gloves.

**Eye/Face protection** Use safety glasses with side shields or safety goggles as

Body protection mechanical barrier for prolonged exposure.  
 Full set of anti chemical reagent overalls, flame retardant antistatic protective clothing, choose body protection according to the amount and concentration of the dangerous substance at the work place.

Note:1. N.E. means not established.

**9. Physical and chemical properties**

Physical state	Clear liquid
Colour	Colourless
Odour	Alcoholic
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability	No data available
Lower and upper explosion limit/ flammability limit	No data available
Flash point	>100 °C (Closed cup)
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	6.0~8.0 (Concentration: compound quaternary ammonium salt 0.18%~0.22%; Temperature: 25 °C)
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient: n-octanol/water(log value)	No data available
Vapour pressure	No data available
Density and/or relative density	1.0 (20 °C)
Relative vapour density (air=1)	No data available
Particle characteristics	Not applicable

**10. Stability and reactivity**

Reactivity	No data available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid (e.g. static discharge, shock or vibration)	Heat and flame and spark. The extreme temperatures and direct sunlight.
Incompatible materials	Avoid contact with strong oxidizing agents, alkalis, strong

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acids, etc.  
 Hazardous decomposition products The decomposition products depend on temperature, air supply and other substances. Decomposition products may include but are not limited to: carbon monoxide and carbon dioxide, nitrogen oxides (NOx), hydrogen bromide gas, hydrogen chloride gas.

**11. Toxicological information**

Routes of Entry: Dermal contact, eye contact, inhalation, ingestion.

Acute Toxicity

Dodecyl dimethyl benzyl ammonium chloride (CAS 139-07-1)	LD50 (Oral, rat): 400 mg/kg LC50 (Inhalation, rat): N/A LD50 (Dermal, rabbit): N/A
Di octyl dimethyl ammonium chloride (CAS 5538-94-3)	LD50 (Oral, rat): N/A LC50 (Inhalation, rat): N/A LD50 (Dermal, rabbit): N/A
Didecyl dimethyl ammonium bromide (CAS 2390-68-3)	LD50 (Oral, rat): N/A LC50 (Inhalation, rat): N/A LD50 (Dermal, rabbit): N/A

Skin corrosion/Irritation Not classified

Serious eye damage/irritation Not classified

Respiratory or skin sensitization Not classified

Germ cell mutagenicity Not classified

Carcinogenicity Not classified

Reproductive toxicity Not classified

STOT-single exposure Not classified

STOT-repeated exposure Not classified

Aspiration hazard Not classified

Chronic Effects Not classified

Further Information None.

**12. Ecological information**

Ecotoxicity

Aquatic Toxicity

Test & Species

96 Hr LC50 fish: N/A

48 Hr EC50 Daphnia: N/A

72 Hr EC50 Algae: N/A

Persistence and degradability Not available

Bioaccumulative potential Not available

Mobility in soil Not available

Additional Information Harmful to aquatic life with long lasting effects.

**13. Disposal considerations**

**WASTE DISPOSAL INSTRUCTIONS**

Contact a qualified professional waste disposal service to dispose of this material.  
 Dispose of in accordance with local environmental regulations or local authority requirements.

**14. Transport information**

The Recommendation of Transport of Dangerous Goods(TDG)

UN Number

Proper Shipping Name

Class/Division

The product is not regulated by TDG.

Package Group

The product is non-dangerous goods.

Subsidiary risk

labelling pictogram

Maritime transport IMDG/

Being same with TDG/No

Marine pollutant (Yes/No)

Air transport ICAO-TI and

Being same with TDG

IATA-DGR

**15. Regulatory information**

**European/International Regulations**

**OSHA:**

Hazardous by definition of Hazard Communication Standard(29CFR 1910.1200).

**EINECS Status:**

The main components of this chemical are included in EINECS inventory.

**EPA TSCA Status:**

The main components of this chemical (Except Di decyl dimethyl ammonium bromide) are included in TSCA inventory.

**Canadian**

**DSL(Domestic**

**Substances List):**

The main components of this chemical (Except Di decyl dimethyl ammonium bromide) are included in DSL.

**HMIS(Hazardous**

**Material Identification**

**System Ratings):**

Health: 0

Flammability: 0

Physical hazard: 0

Personal protection: G

(4. Severe Hazard; 3. Serious Hazard; 2. Moderate Hazard; 1. Slight Hazard; 0. Minimal Hazard)

Not listed.

**WHMIS (Canadian**

**Workplace Hazardous**

**Material Identification**

**System Ratings):**

**GB 12268-2012 List of dangerous goods**

This product is not a dangerous goods on the GB 12268-2012 list of dangerous goods.

**16. other information**

Employers should use this information only as a supplement to other information

gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

This Material Safety Data Sheet was based on the "Globally Harmonized System of Classification and Labelling of Chemicals", "Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations", "INTERNATIONAL MARITIME DANGEROUS GOODS CODE", "International Air Transport Association Dangerous Goods Regulations", the National Standards and other related dangerous chemicals management laws, regulations and standards, which are periodically updated and changed. To make dangerous goods / hazardous chemicals comply with the relevant requirements of the latest management, regularly update is recommended.

This Material Safety Data Sheet has been compiled in both English and Chinese. For any discrepancies, the Chinese version shall prevail.

**Abbreviations and acronyms**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail  
IMDG: International Maritime Code for Dangerous Goods  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
EC50: Effective concentration, 50 percent

**Edit Date**

03.04.2020

**Update and Revise**

Original edition

**Edit Standard**

*Globally Harmonized System of Classification and Labelling for Chemicals Part 1.5*

**Revised Institution**

Technology Center of Hangzhou Customs District