

SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **Liquid Guard**

Creation date: **23.5.2018** · Revision: **18.10.2018** · Version: **1**



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

1.1. Product identifier

Product name

Liquid Guard



chemius.net/RIZ62

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

Relevant identified uses

Antimicrobial compound.

Uses advised against

No information.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Signo Nano-Care UK Ltd
PO Box 225 Oswestry
Shropshire SY10 1DL
Tel.: +44 1691654282
Fax: +44 1691654282

1.4. Emergency telephone number

Emergency

08454 24 24 24

Supplier

Poison centre in Berlin (Giftnotruf Berlin): +49 (0)30 30686 790

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



H411 Toxic to aquatic life with long lasting effects. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection. P404 Store in a closed container.

P501 Dispose of contents/container in accordance with local regulation.

2.2.2. Contains:

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2.2.3. Special provisions

Special hazards are not known or expected.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard****2.3. Other hazards**

No information.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

For mixtures see 3.2.

3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	REACH Registration No.
Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride	27668-52-6 248-595-8 -	1-<3	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	-
methanol	67-56-1 200-659-6 603-001-00-X	0,5<-1	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 STOT SE 1; H370	-

SECTION 4. FIRST AID MEASURES**4.1. Description of first aid measures**General notes

When in doubt or if symptoms do not disappear seek medical help. Show the Safety data sheet and label to the physician. Never give anything by mouth to an unconscious person. Place patient stably in side position for transportation.

Following inhalation

Remove patient to fresh air-move out of dangerous area. If symptoms persist seek medical attention.

Following skin contact

Wash affected skin areas thoroughly with plenty of water and soap! Take off all contaminated clothing. If feeling unwell seek medical help.

Following eye contact

Remove contact lenses. Immediately flush eyes with running water, keeping eyelids open. If irritation persist, seek professional medical attention.

Following ingestion

Do not induce vomiting. In case of doubt or if feeling unwell seek medical help. Show the physician the Safety Data Sheet or label. Never give anything by mouth to an unconscious person.

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

Excessive exposure to spray mist, fog, or vapour may cause respiratory irritation.

Skin contact

Contact with skin may cause irritation (redness, itching).

Eye contact

Contact with eyes can cause irritation (redness, tearing, pain).

Ingestion

May cause abdominal discomfort.

May cause nausea/vomiting and diarrhea.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard****4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES**5.1. Extinguishing media**Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixtureHazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

5.3. Advice for firefightersProtective actions

In case of fire or heating do not breathe fumes/vapours. Cool containers at risk with water spray jet. If possible remove containers from endangered area.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective clothing for fire-fighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated extinguishing agents must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel****Protective equipment**

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition; No smoking! Prevent access to unprotected personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing. Do not use open fire and keep away all sources of ignition.

6.1.2. For emergency responders

Use personal protective equipment.

6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If larger amounts are released call fire brigade or information centre.

6.3. Methods and material for containment and cleaning up**6.3.1. For containment**

Stem the spill if this does not pose risks. Limit spillages with non-combustible absorbents, e.g. sand, earth, vermiculite, diatomaceous earth.

6.3.2. For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Ventilate the premises. Prevent release into the sewer, water, basements or confined areas.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard**6.3.3. Other information

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6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7. HANDLING AND STORAGE**7.1. Precautions for safe handling**7.1.1. Protective measures**Measures to prevent fire**

Ensure adequate ventilation. Keep away from sources of ignition - No smoking.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

7.1.2. Advice on general occupational hygiene

Do not eat, drink or smoke while working. Do not breathe vapours/mist. Use good personal hygiene practices-wash hands at breaks and when done working with material. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash before re-use. Wear suitable protective equipment; see chapter 8.

7.2. Conditions for safe storage, including any incompatibilities7.2.1. Technical measures and storage conditions

Store in accordance with local regulations. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feedingstuffs. Keep away from sources of ignition - No smoking. Keep in a cool, dry and well ventilated place.

7.2.2. Packaging materials

Store in original container.

7.2.3. Requirements for storage rooms and vessels

Close opened containers after use. Put the container upright to prevent from leaking. Do not store in unlabelled containers.

7.2.4. Storage class

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7.2.5. Further information on storage conditions

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7.3. Specific end use(s)**Recommendations**

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Industrial sector specific solutions

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**8.1.1. Occupational Exposure limit values

Name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m ³ (ppm)	mg/m ³	ml/m ³ (ppm)	mg/m ³		
Methanol (67-56-1)	200	266	250	333	Sk	

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard****8.1.2. Information on monitoring procedures**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

8.1.3. DNEL/DMEL values

No information.

8.1.4. PNEC values

No information.

8.2. Exposure controls**8.2.1. Appropriate engineering control****Substance/mixture related measures to prevent exposure during identified uses**

Do not breathe vapours/aerosols. Use good personal hygiene practices-wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in the area with increased concentration. Keep away from food, drink and animal feedingstuffs.

8.2.2. Personal protective equipment**Eye and face protection**

Safety glasses with side protection (EN 166).

Hand protection

Protective gloves (EN 374). The penetration time is determined by the protective glove manufacturer and should be followed. Follow the manufacturer's instructions for use, storage, maintenance and glove changing. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Skin protection

At high risk of skin exposure are chemical suits (EN ISO 6530:2005) and boots may be required (EN ISO 20345:2012).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387).

Thermal hazards

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8.2.3. Environmental exposure controls**Substance/mixture related measures to prevent exposure**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

-	Physical state:	liquid
-	Colour:	colourless
-	Odour:	characteristic

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard**



Important health, safety and environmental information

-	pH	No information.
-	Melting point/Freezing point	No information.
-	Initial boiling point/boiling range	No information.
-	Flash point	No information.
-	Evaporation rate	No information.
-	Flammability (solid, gas)	No information.
-	Explosion limits (vol%)	No information.
-	Vapour pressure	No information.
-	Vapour density	No information.
-	Density	No information.
-	Solubility	No information.
-	Partition coefficient	No information.
-	Auto-ignition temperature	No information.
-	Decomposition temperature	No information.
-	Viscosity	No information.
-	Explosive properties	No information.
-	Oxidising properties	No information.

9.2. Other information

-	Remarks:	
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SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended transport or storage conditions.

10.2. Chemical stability

Product is stable under normal conditions according to handling and storage.

10.3. Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions.

10.4. Conditions to avoid

No special precautions required. Consider the directions for use and storage.

10.5. Incompatible materials

Not known.

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours dangerous for health are spread.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

11.1.1. Acute toxicity

Additional information

Not classified for acute toxicity.

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard**11.1.2. Skin corrosion/irritation, serious eye damage/irritation**Additional information**

The product is not classified as irritating to skin and eyes.

11.1.3. Respiratory or skin sensitisation**Additional information**

Not classified as sensitizing.

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity**Carcinogenicity**

No information.

(Germ cell) mutagenicity

No information.

Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

11.1.5. STOT - single and repeated exposure**Additional information**

STOT RE (repeated exposure): not classified. STOT SE (single exposure): not classified.

11.1.6. Aspiration hazard**Additional information**

Aspiration hazard: Not

SECTION 12. ECOLOGICAL INFORMATION

Classified.

12.1. Toxicity12.1.1. Acute (short-term) toxicity

No information.

12.1.2. Chronic (long-term) toxicity

No information.

12.2. Persistence and degradability12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

12.2.2. Biodegradation

No information.

12.3. Bioaccumulative potential12.3.1. Partition coefficient

No information.

12.3.2. Bioconcentration factor (BCF)

No information.

12.4. Mobility in soil12.4.1. Known or predicted distribution to environmental compartments

No information.

SAFETY DATA SHEET according to Regulation

1907/2006



Product name: **Liquid Guard**

12.4.2. Surface tension

No information.

12.4.3. Adsorption/Desorption

No information.

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

No information.

12.7. Additional information

For product

Toxic to aquatic life with long lasting effects.

Do not allow to enter ground water, water course or sewage system.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorized collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - should be handled in the same manner as the contents.

13.1.2. Waste treatment-relevant information

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13.1.3. Sewage disposal-relevant information

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13.1.4. Other disposal recommendations

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SECTION 14. TRANSPORT INFORMATION

14.1. UN number

UN 3082

14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride)

14.3. Transport hazard class(es)

9

14.4. Packing group

III



SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard****14.5. Environmental hazards**

Additional labeling: Dangerous for the
environment IMDG: MARINE POLLUTANT

14.6. Special precautions for user**Limited quantities**

5 L

Tunnel restriction code

(-)

IMDG EmS

F-A, S-F

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

Goods may not be carried in bulk in bulk containers, containers or vehicles.

SECTION 15. REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATIONIndication of changes

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Abbreviations andacronyms

ATE - Acute Toxicity Estimate
 ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN - "European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways"
 CEN - European Committee for Standardisation
 C&L - Classification and Labelling
 CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
 CAS# - Chemical Abstracts Service number
 CMR - Carcinogen, Mutagen, or Reproductive Toxicant
 CSA - Chemical Safety Assessment
 CSR - Chemical Safety Report
 DMEL - Derived Minimal Effect
 Level DNEL - Derived No Effect Level
 DPD - Dangerous Preparations Directive
 1999/45/EC DSD - Dangerous Substances Directive
 67/548/EEC DU - Downstream User
 EC - European Community
 ECHA - European Chemicals Agency
 EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
 EEA - European Economic Area (EU + Iceland, Liechtenstein)

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard**



and Norway)

SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard**

EEC - European Economic Community
 EINECS - European Inventory of Existing Commercial
 Substances ELINCS - European List of notified Chemical
 Substances
 EN - European Standard
 EQS - Environmental Quality
 Standard EU - European Union
 Euphrac - European Phrase Catalogue
 EWC - European Waste Catalogue (replaced by LoW – see
 below) GES - Generic Exposure Scenario
 GHS - Globally Harmonized System
 IATA - International Air Transport Association
 ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by
 Air IMDG - International Maritime Dangerous Goods
 IMSBC - International Maritime Solid Bulk
 Cargoes IT - Information Technology
 IUCLID - International Uniform Chemical Information
 Database IUPAC - International Union for Pure Applied
 Chemistry
 JRC - Joint Research Centre
 Kow - octanol-water partition coefficient
 LC50 - Lethal Concentration to 50 % of a test population
 LD50 - Lethal Dose to 50% of a test population (Median Lethal
 Dose) LE - Legal Entity
 LoW - List of Wastes (see
<http://ec.europa.eu/environment/waste/framework/list.htm>) LR - Lead
 Registrant
 M/I - Manufacturer /
 Importer MS - Member
 States
 MSDS - Material Safety Data
 Sheet OC - Operational
 Conditions
 OECD - Organization for Economic Co-operation and
 Development OEL - Occupational Exposure Limit
 OJ - Official Journal
 OR - Only Representative
 OSHA - European Agency for Safety and Health at
 work PBT - Persistent, Bioaccumulative and Toxic
 substance PEC - Predicted Effect Concentration
 PNEC(s) - Predicted No Effect Concentration(s)
 PPE - Personal Protection Equipment
 (Q)SAR - Qualitative Structure Activity Relationship
 REACH - "Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No
 1907/2006" RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
 RIP - REACH Implementation
 Project RMM - Risk Management
 Measure
 SCBA - Self-Contained Breathing
 Apparatus SDS - Safety data sheet
 SIEF - Substance Information Exchange Forum
 SME - Small and Medium sized Enterprises
 STOT - Specific Target Organ Toxicity
 (STOT) RE - Repeated
 Exposure (STOT) SE - Single
 Exposure
 SVHC - Substances of Very High Concern
 UN - United Nations
 vPvB - Very Persistent and Very Bioaccumulative

Key literature references and sources for
data

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SAFETY DATA SHEET according to Regulation

1907/2006

Product name: **Liquid Guard**List of relevant H phrases

- H225 Highly flammable liquid and vapour.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H370 Causes damage to organs.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.



- Provided correct labelling of the product
- Compliance with the local legislation
- Provided correct classification of the product
- Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this

SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as ~~guaranteeing specific properties~~