Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

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

· **1.1 Product identifier**

· **Trade name: Liquid Elements Nanomite**
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture**
Maintenance product
Glass sealant

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
AREA 52 GmbH
Thüngenfeld 4
D-58256 Ennepetal
Germany
tel. +49-(0)2333-3068945

e-mail: info@liquidelements.de
· **Further information obtainable from:** Product safety department
· **1.4 Emergency telephone number:** tel.: +49 (0)2333-3068945 (Monday to friday: 8:00 - 17:00)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS05 corrosion

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

GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labelling:**
2-butoxyethanol
Siloxanes and Silicones, 3-[(2-aminoethyl)amino]propyl Me, di-Me
· **Hazard statements**
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

Trade name: Liquid Elements Nanomite

(Contd. of page 1)

P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / eye protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P310	Immediately call a POISON CENTER/doctor/producer.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.
P501	Dispose of contents/container to an authorised waste disposal contractor or licensed local authority disposal / landfill site.

· ***Additional information:*** *Void*
· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:***
The product contains substances which are classified as PBT (PBT: persistent, bioaccumulative, toxic) and/or as vPvB (very persistent, very bioaccumulative) according to annex XIII of regulation (EC) 1907/2006.
· ***vPvB:***
The product contains substances which are classified as PBT (PBT: persistent, bioaccumulative, toxic) and/or as vPvB (very persistent, very bioaccumulative) according to annex XIII of regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients

· ***3.2 Mixtures***
· ***Description:*** *Mixture of substances listed below with nonhazardous additions.*

· ***Dangerous components:***

CAS: 111-76-2 EINECS: 203-905-0 Index number: 603-014-00-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	70-<80%
CAS: 71750-79-3 EC number: 615-336-9	Siloxanes and Silicones, 3-[(2-aminoethyl)amino]propyl Me, di-Me Skin Corr. 1B, H314; Eye Dam. 1, H318	10-<20%
CAS: 556-67-2 EINECS: 209-136-7 Index number: 014-018-00-1 Reg.nr.: 01-2119529238-36	octamethylcyclotetrasiloxane Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 4, H413	0.1-<1%

· ***SVHC***

556-67-2	octamethylcyclotetrasiloxane

· ***Additional information:*** *For the wording of the listed hazard phrases refer to section 16.*

SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***General information:***
If symptoms persist consult doctor.
Immediately remove any clothing soiled by the product.
· ***After inhalation:***
Fresh air. If pain persists, get medical attention.
In case of unconsciousness place patient stably in side position for transportation.
· ***After skin contact:*** *Immediately wash with water and soap and rinse thoroughly.*
· ***After eye contact:***
Rinse opened eye for several minutes under running water. Then consult a doctor.
Protect unharmed eye.
· ***After swallowing:***
Rinse out mouth with water.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 Version number 1 Revision: 20.02.2019

Trade name: Liquid Elements Nanomite

(Contd. of page 2)

Do not induce vomiting; call for medical help immediately.
In case of spontaneous vomiting, keep the head below hip level to prevent aspiration of the product.
· **4.2 Most important symptoms and effects, both acute and delayed**
Headache
Dizziness
Nausea
· **4.3 Indication of any immediate medical attention and special treatment needed**
Treatment after assessment of medical condition by a physician. Present safety data sheet or label.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** *Full water jet*
· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Silicium dioxide
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
· **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Particular danger of slipping on leaked/spilled product.
· **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Observe the usual precautionary measures for handling chemicals.
Avoid contact with eyes and skin.
Clean skin after contact with substance.
Ensure good ventilation/exhaustion at the workplace.
Observe use instructions.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

Trade name: Liquid Elements Nanomite

(Contd. of page 3)

· ***Information about fire - and explosion protection:***
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** *Store only in unopened original receptacles.*
· ***Information about storage in one common storage facility:***
Observe regulations / technical rules for the assembly of flammable liquids.
Store away from oxidising agents.
· ***Further information about storage conditions:*** *Store in dry conditions at 10 - 25 °C.*
· ***Storage class:*** *8 A (Germany)*
· ***7.3 Specific end use(s)*** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· ***Additional information about design of technical facilities:*** *No further data; see item 7.*

· ***8.1 Control parameters***

· ***Ingredients with limit values that require monitoring at the workplace:***	
111-76-2 2-butoxyethanol	
IOELV	*Short-term value: 246 mg/m³, 50 ppm* *Long-term value: 98 mg/m³, 20 ppm* *Skin*

· ***Additional information:*** *The lists valid during the making were used as basis.*

· ***8.2 Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Observe the usual precautionary measures for handling chemicals.
Avoid contact with the eyes and skin.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.
Wash hands before breaks and at the end of work.
· ***Respiratory protection:***
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.
· ***Recommended filter device for short term use:*** *Filter A*
· ***Protection of hands:***
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Protective gloves according EN 374.
Check the permeability prior to each anewed use of the glove.
· ***Material of gloves***
Butyl rubber, BR
Recommended thickness of the material: ≥ 0.7 mm
Penetration time: ≥ 480 minutes (Permeation according to EN 374 Part 3: Level 6)
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· ***Penetration time of glove material***
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 Version number 1 Revision: 20.02.2019

Trade name: Liquid Elements Nanomite

(Contd. of page 4)

· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Liquid
Colour:	Colourless
· **Odour:**	Glycolic
· **Odour threshold:**	Not determined.
· **pH-value:**	Not applicable.
· **Change in condition**	
Melting point/freezing point:	Not determined.
Initial boiling point and boiling range:	171 °C
· **Flash point:**	> 67 °C (read across)
· **Flammability (solid, gas):**	Not applicable.
· **Ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature:**	Not determined.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	1.1 Vol %
Upper:	10.6 Vol %
· **Oxidising properties**	Not applicable.
· **Vapour pressure:**	Not determined.
· **Density at 20 °C:**	0.9 - 0.95 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
water:	Partly miscible.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	70-<80 %
Solids content:	Not determined.
· **9.2 Other information**	No further relevant information available.

EU

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

Trade name: Liquid Elements Nanomite

(Contd. of page 5)

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions** Reaction with strong oxidizing agents.
· **10.4 Conditions to avoid**
Avoid impact, friction, heat, sparks, naked flame and other sources of ignition. Avoid electrostatic charging.
· **10.5 Incompatible materials:**
strong oxidizing agents
strong acids
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Harmful if swallowed, in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**		
111-76-2 2-butoxyethanol		
Oral	LD50	1,480 mg/kg (rat)
Dermal	LD50	1,060 mg/kg (rabbit)
Inhalative	LC50/8 h	10-20 mg/m³ (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
· **Serious eye damage/irritation**
Causes serious eye damage.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Repeated dose toxicity** No further relevant information available.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
No further relevant information available.
· **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.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
111-76-2 2-butoxyethanol	
EC50	911 mg/l (algae) (72 h)
	1,550 mg/l (daphnia magna) (48 h)
LC50	>100-1,700 mg/l (fish)

· **12.2 Persistence and degradability** The solvent is biodegradable
· **12.3 Bioaccumulative potential** Bioaccumulation potentially possible.
· **12.4 Mobility in soil** No further relevant information available.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

Trade name: Liquid Elements Nanomite

(Contd. of page 6)

· ***Additional ecological information:***
· ***General notes:***
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:***
The mixture contains substances which are classified as persistent, bioaccumulative, toxic (PBT) and/or as very persistent, very bioaccumulative (vPvB).
· ***vPvB:***
The mixture contains substances which are classified as persistent, bioaccumulative, toxic (PBT) and/or as very persistent, very bioaccumulative (vPvB).
· ***12.6 Other adverse effects*** *No further relevant information available.*

SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
· ***Recommendation***
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Dispose of in accordance with all applicable local and national regulations.

· ***European waste catalogue***	
*07 02 16**	*waste containing hazardous silicones*
*15 01 10**	*packaging containing residues of or contaminated by hazardous substances*

· ***Uncleaned packaging:***
· ***Recommendation:***
Dispose of in accordance with all applicable local and national regulations.
Non contaminated packagings may be recycled.

SECTION 14: Transport information

· ***14.1 UN-Number***	
· ***ADR, IMDG, IATA***	*UN3267*
· ***14.2 UN proper shipping name***	
· ***ADR***	*3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Siloxanes and Silicones, 3-[(2-aminoethyl)amino]propyl Me, di-Me)*
· ***IMDG, IATA***	*CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Siloxanes and Silicones, 3-[(2-aminoethyl)amino]propyl Me, di-Me)*
· ***14.3 Transport hazard class(es)***	
· ***ADR, IMDG, IATA***	
· ***Class***	*8 Corrosive substances.*
· ***Label***	*8*
· ***14.4 Packing group***	
· ***ADR, IMDG, IATA***	*II*
· ***14.5 Environmental hazards:***	
· ***Marine pollutant:***	*No*
· ***14.6 Special precautions for user***	*Warning: Corrosive substances.*

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

Trade name: Liquid Elements Nanomite

(Contd. of page 7)

· **Danger code (Kemler):**	80
· **EMS Number:**	F-A,S-B
· **Segregation groups**	Alkalis
· **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)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **Transport category**	2
· **Tunnel restriction code**	E
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **UN "Model Regulation":**	UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (SILOXANES AND SILICONES, 3-[(2-AMINOETHYL)AMINO]PROPYL ME, DI-ME), 8, II

SECTION 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 of the ingredients is listed.

· **National regulations:**

· **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed, if applicable.

· **Other regulations, limitations and prohibitive regulations**
The product has to be fitted with a child resistant closure.
The product has to be fitted with a tactile warning.

· **Substances of very high concern (SVHC) according to REACH, Article 57**	
556-67-2	octamethylcyclotetrasiloxane

· **15.2 Chemical safety assessment:**
A Chemical Safety Assessment has not been carried out, because it is not necessary for mixtures.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 10.07.2019 *Version number 1* *Revision: 20.02.2019*

Trade name: Liquid Elements Nanomite

(Contd. of page 8)

H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H361f Suspected of damaging fertility.
H413 May cause long lasting harmful effects to aquatic life.

· ***Classification according to Regulation (EC) No 1272/2008***
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· ***Department issuing SDS:***
Chemisches Labor & Consulting - Dr. Ulrich Bönig
Simonshöfchen 55, D-42327 Wuppertal
Germany
Tel.: +49-(0)202-7387557
· ***Contact:*** *Mr. Boenig, PhD.*
· ***Abbreviations and acronyms:***
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008
REACH: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
EC50: effective concentration, 50 percent
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
VCI: Verband der chemischen Industrie, Deutschland (German chemical industry association)
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – 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
Repr. 2: Reproductive toxicity – Category 2
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4