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

Printing date 04.06.2019 *Version number 1* *Revision: 31.05.2019*

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

· **1.1 Product identifier**

· **Trade name: Liquid Elements Quarz Clean Nano Glass cleaner**
· **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** Glass Cleaner

· **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**
Not classified as H226 because negative results have been obtained in the sustained combustibility test L.2 with a comparable mixture (Regulation (EC) 1272/2008).
The product is not classified, according to the CLP regulation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Additional information:** Void
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:**
The product does not contain any PBT (PBT: persistent, bioaccumulative, toxic) substance or does not fulfil criteria for PBT according to annex XIII of regulation (EC) 1907/2006 (< 0,1 %).
· **vPvB:**
The product does not contain any vPvB (vPvB: very persistent, very bioaccumulative) substance or does not fulfil criteria for vPvB according to annex XIII of regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

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

· **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43	ethanol Flam. Liq. 2, H225 Eye Irrit. 2, H319	2-<7%
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	1-<5%

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· ***Regulation (EC) No 648/2004 on detergents / Labelling for contents***

preservation agents (PHENOXYETHANOL, BUTYLBENZISOTHIAZOLINONE, LAURYLAMINE DIPROPYLENEDIAMINE, METHYLCHLOROISOTHIAZOLINONE, METHYLISOTHIAZOLINONE), perfumes

· ***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.*
· ***After inhalation:*** *Fresh air. If pain persists, get medical attention.*
· ***After skin contact:*** *Immediately wash with water and soap and rinse thoroughly.*
· ***After eye contact:***
Immediately flush eyes with plenty of water with lids lifted. If symptons persist, seek medical advice.
· ***After swallowing:***
Rinse out mouth and drink plenty of water.
If symptoms persist consult doctor.
· ***4.2 Most important symptoms and effects, both acute and delayed*** *No further relevant information available.*
· ***4.3 Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:***
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)
· ***5.3 Advice for firefighters***
· ***Protective equipment:***
Do not inhale explosion gases or combustion gases.
Mouth respiratory protective device.
· ***Additional information***
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Wear protective clothing.
Ensure adequate ventilation
· ***6.2 Environmental precautions:***
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
· ***6.3 Methods and material for containment and cleaning up:***
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.

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SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Observe the usual precautionary measures for handling chemicals.
Avoid contact with eyes.
Avoid close or long term contact with the skin.
· ***Information about fire - and explosion protection:*** *Keep ignition sources away - Do not smoke.*

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** *No special requirements.*
· ***Information about storage in one common storage facility:*** *Not required.*
· ***Further information about storage conditions:*** *Store in dry conditions at 10 - 25 °C.*
· ***Storage class:*** *10 - 13 (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.
Avoid close or long term contact with the skin.
Wash hands before breaks and at the end of work.
· ***Respiratory protection:***
Not necessary if room is well-ventilated.
Use suitable respiratory protective device when high concentrations are present.
· ***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***
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.5 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.

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· ***Eye protection:*** *Goggles recommended during refilling*
· ***Body protection:*** *Light weight protective clothing*

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Liquid
Colour:	Green
· **Odour:**	perfumed
· **Odour threshold:**	Not determined.
· **pH-value:**	5 - 7
· **Change in condition**	
Melting point/freezing point:	Not determined.
Initial boiling point and boiling range:	> 78 °C
· **Flash point:**	> 35 °C (read across)
· **Flammability (solid, gas):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Oxidising properties**	Not applicable.
· **Vapour pressure:**	Not determined.
· **Density at 20 °C:**	~ 0.99 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Fully miscible.
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	< 10 %
Water:	> 90 %
Solids content:	Not determined.
· **9.2 Other information**	No further relevant information available.

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 according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.

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· ***10.4 Conditions to avoid*** *No further relevant information available.*
· ***10.5 Incompatible materials:*** *No further relevant information available.*
· ***10.6 Hazardous decomposition products:*** *No dangerous decomposition products known.*

SECTION 11: Toxicological information

· ***11.1 Information on toxicological effects***
· ***Acute toxicity*** *Based on available data, the classification criteria are not met.*

· **LD/LC50 values relevant for classification:**		
64-17-5 ethanol		
Oral	LD50	10,470 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	117-125 mg/l (rat) (OECD 403)
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*** *Based on available data, the classification criteria are not met.*
· ***Serious eye damage/irritation*** *Based on available data, the classification criteria are not met.*
· ***Respiratory or skin sensitisation*** *Based on available data, the classification criteria are not met.*

· **Repeated dose toxicity**		
64-17-5 ethanol		
Oral	90-day feeding study	1,730 mg/kg (rat) (OECD 408)

· ***CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)***
· ***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.*

· **Germ cell mutagenicity**	
64-17-5 ethanol	
Ames test	negative (bacterial reverse mutation assay)

· ***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:**	
64-17-5 ethanol	
EC50	9,000 mg/l (algae) (Chlorella pyrenoidosa (10 d))
LC50	12,340 mg/l (daphnia magna) (48 h)
	4,600 mg/l (fish) (96 h, Leuciscus idus melanotus)
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
The contained surfactants are easily biodegradable

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· ***12.3 Bioaccumulative potential*** *No further relevant information available.*
· ***12.4 Mobility in soil*** *No further relevant information available.*
· ***Additional ecological information:***
· ***General notes:***
The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*
· ***12.6 Other adverse effects*** *No further relevant information available.*

SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
· ***Recommendation***
Smaller quantities can be disposed of with household waste.
Dispose of in accordance with all applicable local and national regulations.

· ***European waste catalogue***	
20 01 30	*detergents other than those mentioned in 20 01 29*
15 01 02	*plastic packaging*

· ***Uncleaned packaging:***
· ***Recommendation:***
Dispose of in accordance with all applicable local and national regulations.
Non contaminated packagings may be recycled.
· ***Recommended cleansing agents:*** *Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

· ***14.1 UN-Number***	
· ***ADR, ADN, IMDG, IATA***	*Void*
· ***14.2 UN proper shipping name***	
· ***ADR, ADN, IMDG, IATA***	*Void*
· ***14.3 Transport hazard class(es)***	
· ***ADR, ADN, IMDG, IATA***	
· ***Class***	*Void*
· ***14.4 Packing group***	
· ***ADR, IMDG, IATA***	*Void*
· ***14.5 Environmental hazards:***	
· ***Marine pollutant:***	*No*
· ***14.6 Special precautions for user***	*Not applicable.*
· ***14.7 Transport in bulk according to Annex II of Marpol and the IBC Code***	*Not applicable.*
· ***Transport/Additional information:***	*Product with comparable composition does not support combustion according to method L.2 (sustained combustibility test).*

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· ***UN "Model Regulation":*** *Void*

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.
· ***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***
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
· ***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.
Bridging principles

· ***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:***
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. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2