SAFETY DATA SHEET AQUA-SOL SILICATE FREE

According to EC Regulation 1907/2006/EC - revision 2020/878

Revision No. 3.5

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

1.1. Product identifier

Product name	AQUA-SOL SILICATE FREE
Product Code	11004116K1 (CLP)
UFI:	0C13-202P-000R-TEJ8

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

Recommended use

Cleaner.

1.3. Details of the supplier of the safety data sheet

NCH UK & Ireland, Arrowmere House, Bilston, WV14 0QL Tel (UK): 01902 510200, Tel (Ireland): 042 939 5502

E-mail address	technical_uk@nch.com
Website address	www.ncheurope.com

1.4. Emergency telephone number

UK - 01902 510200 (available during Office Hours)

In Republic of Ireland (available from 8am to 10pm daily): 01 809 2166

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP/GHS) and its adaptations

Aerosols: Category 1

H222 - Extremely flammable aerosol

H229 - Pressurised container: May burst if heated

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS)

Hazard pictograms

Signal word DANGER

Hazard Statements

H222 - Extremely flammable aerosol

H229 - Pressurised container: May burst if heated

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P211 - Do not spray on an open flame or other ignition source

P251 - Do not pierce or burn, even after use

P271 - Use only outdoors or in a well-ventilated area

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P260 - Do not breathe mist/spray.

Keep out of reach of children.

For industrial and institutional use only.

2.3. Other hazards

No additional hazards identified.

The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.

SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS

3.2 Mixture

Chemical Name	CAS-No.	EC No.	EU - REACH reg number	Weight-%	EU - GHS/CLP Classification	Notes
BUTANE	106-97-8	203-448-7	01-2119474691-32	5 - < 10	Press. Gas (H280) Flam. Gas 1	K

					(H220)	

For any H statements mentioned in this section, see the full text in section 16.

EU Notes

Note K - The classification as a carcinogen or mutagen does not apply as the substance contains less than 0.1% w/w 1,3-butadiene

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice

If symptoms persist, call a physician. Avoid breathing vapours or mists.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth with water. If swallowed, do not induce vomiting - seek medical advice.

Inhalation

If exposed to high concentrations of the aerosol vapours, move to fresh air. If symptoms persist, call a physician.

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

Sensitisation

No information available.

Eye contact

May cause irritation as itching and redness.

Skin contact

Prolonged contact will dry and defat the skin and may cause irritation such as itching and redness.

Inhalation

Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.

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

Notes to physician

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use:. Dry powder. Alcohol-resistant foam. Water spray. Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons

Water jet.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours. Pressurized container. Extremely flammable. Keep product and empty container away from heat and sources of ignition.

5.3. Advice for firefighters

Firefighters should wear a self-contained breathing apparatus and full protective gear. Cool fire-exposed containers with water spray to prevent bursting.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes, and clothing. Prevent further leakage or spillage if safe to do so. See section 8. Remove all sources of ignition. Ventilate the area. Due to the nature of the aerosol packaging, a large spill is unlikely. For a small spill, wear appropriate protective clothing, ventilate the area, absorb with an inert material and transfer all material into a properly labeled container for disposal. Use care as spills may be slippery.

6.2. Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Methods for Cleaning up
For the non volatile residues:. Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections
Refer to sections 7, 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling
Avoid breathing vapours or mists. Do not eat, drink or smoke when using this product. Keep away from open flames, hot surfaces and sources of ignition. Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities
Keep away from heat and sources of ignition. Store in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

7.3. Specific end use(s)
No information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits
If vapours, fumes or mists are generated, their concentration in the workplace area should be kept to the lowest reasonable level. For substances.

Chemical Name	European Union	The United Kingdom	France	Germany	Austria
BUTANE		STEL: 750 ppm STEL: 1810 mg/m^3 TWA: 600 ppm TWA: 1450 mg/m^3	VME: 800 ppm VME: 1900 mg/m^3	AGW: 1000 ppm AGW: 2400 mg/m^3 Spitzenbegr.: 4000 ppm Spitzenbegr.: 9600 mg/m^3 MAK: 1000 ppm MAK: 2400 mg/m^3	STEL: 1600 ppm STEL: 3800 mg/m^3 TWA: 800 ppm TWA: 1900 mg/m^3

Chemical Name	Spain	Portugal	Italy	The Netherlands	Switzerland
BUTANE	TVA: 1000 ppm	TWA: 1000 ppm			STEL: 3200 ppm STEL: 7200 mg/m^3 TWA: 800 ppm TWA: 1900 mg/m^3 TWA: 1000 ppm

Chemical Name	Denmark	Finland	Norway	Sweden	Czech
BUTANE	TWA: 500 ppm TWA: 1200 mg/m^3	HTP (8h): 800 ppm HTP (8h): 1900 mg/m^3 HTP (15min): 1000 ppm HTP (15min): 2400 mg/m^3	TWA: 250 ppm TWA: 600 mg/m^3		

Chemical Name	Poland	Ireland
BUTANE	NDSCh: 3000 mg/m^3 NDS: 1900 mg/m^3	TWA: 1000 ppm STEL: 3000 ppm

8.2. Exposure controls
Engineering Measures
Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment
Use personal protection equipment as per Regulation (EU) 2016/425.
Respiratory Protection
In case of inadequate ventilation wear respiratory protection. Conforming to EN 14387 (organic vapours). When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hand Protection
Wear suitable protective gloves conforming to EN 374. Type of gloves suggested :. Solvent-resistant gloves (butyl-rubber). Fluorinated rubber. Polyvinyl alcohol. For break through times, refer to glove manufacturers recommendations.
Eye Protection
Safety glasses if the method of use presents the likelihood of eye contact. Approved to EN 166.
General hygiene considerations
Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practise. Wash hands before before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties
Information below relates to typical values and does not constitute a specification.

Appearance	Foam - White / Pale blue	**Specific Gravity**	0.93
Physical State	Liquid / Foam	**Solubility**	Soluble in water
Odour	Slight amine	**Autoignition Temperature**	No information available.
pH	10.8	**Viscosity**	Fluid
Melting Point/Range	Not applicable.	**Explosive properties**	No information available
Boiling Point/Range	-10 °C	**Oxidizing Properties**	No information available.
Flash Point	< -50 °C	**VOC Content (%)**	8.1 %
Evaporation Rate	No information available.		
Flammability Limits in Air %	No information available.		
Vapour pressure	No information available.		
Vapor Density	No information available.		

9.2. Other information
No other information available

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity
Not considered as highly reactive. See further information below.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
The mixture itself will not dangerously react or polymerise to create hazardous conditions in normal use.
10.4. Conditions to avoid
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from open flames, hot surfaces, and sources of ignition.
10.5. Incompatible materials
Strong oxidising agents.
10.6. Hazardous decomposition products
None under normal storage conditions and use.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Product Information
The product itself has not been tested.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
BUTANE			= 658 g/m^3 (Rat) 4 h

Sensitisation
No information available.
Skin contact
Prolonged contact will dry and defat the skin and may cause irritation such as itching and redness.
Inhalation
Inhalation of mists may result in irritation to the respiratory tract. May cause headaches, dizziness, drowsiness and nausea.
Eye contact
May cause irritation as itching and redness.
Carcinogenicity
There are no known carcinogenic substances in this product.
Mutagenic Effects
There are no known mutagenic substances in this product.
Reproductive Effects
There are no known substances in this product with effects on reproduction.
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

11.2 Information on Other Hazards
The product does not contain substances that have been identified as an endocrine disruptor

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity
Product Information
The product itself has not been tested.
Ecotoxicity effects
pH values above 10.5 may be fatal to fish and other aquatic organisms.

12.2. Persistence and degradability
Ecotoxicological properties are substance specific, i.e. bioaccumulation, persistence and degradability. The information is given, where available and appropriate, for substance(s) of the mixture. 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.
12.3. Bioaccumulative potential
Bioaccumulation unlikely due to the high volatility of the product. Component information below.

Chemical Name	log Pow
BUTANE	2.89

12.4. Mobility in soil
Soluble in water.
12.5. Results of PBT and vPvB assessment
The components in this formulation do not meet the criteria for classification as PBT or vPvB. As defined under the regulation EC 1907/2006.
12.6 Endocrine disrupting properties
The product does not contain substances that have been identified as an endocrine disruptor
12.7 Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from Residues / Unused Products
Dispose of in accordance with local regulations.
Contaminated Packaging
Empty containers should be taken for local recycling, recovery or waste disposal. Recycle according to official regulations. Do not expose to heat, flames, sparks or other sources of ignition. Do not pierce or burn, even after use.
EWC waste disposal No
The following EWC/ AVV waste codes may be applicable:
16 05 04* gases in pressure containers (including halons) containing dangerous substances
15 01 10* packaging containing residues of or contaminated by dangerous substances
Other Information
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific

SECTION 14. TRANSPORT INFORMATION

14.1, 14.2, 14.3, 14.4.
IMDG/IMO

UN-No	UN1950
UN proper shipping name	Aerosols, Flammable
Hazard Class	2.1
EmS	F-D, S-U

ADR / RID

UN-No	UN1950
Hazard Class	2.1
Classification Code	5F
Limited Quantity	1 L
Transport Cat. (Tunnel Restriction Code)	2 (D)

IATA/ICAO

UN-No	UN1950
Hazard Class	2.1
ERG Code	10P

14.5. Environmental hazards
The mixture is not environmentally hazardous for transport
14.6. Special precautions for user
No special precautions.
14.7 Maritime transport in bulk according to IMO instruments
Packaged product, not typically transported in IBC's
Additional information
Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
This mixture was classified in compliance with EC Regulation 1272/2008 (CLP) and its adaptations.
. .
Labelling for contents (REGULATION (EC) No 648/2004 - 907/2006):
< 5% non-ionic surfactants,

15.2. Chemical safety assessment
No chemical safety assessment has been carried out for this mixture by the supplier

SECTION 16. OTHER INFORMATION

Text of H statements mentioned in Section 3
H220 - Extremely flammable gas.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
On the basis of test data. H222 - Extremely flammable aerosol.
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New formulation SDS sections updated 2 15 3 16

Abbreviations
REACH: Registration Evaluation Authorisation Restriction of Chemicals
EU: European Union
EC: European community
EEC: European Economic Community
UN: United Nations
CAS: Chemical Abstracts Service
PBT: Persistent Bioaccumulative Toxic
vPvB: very Persistent very Bioaccumulative
LC50: Lethal concentration, 50 percent
LD50 : Lethal dose, 50 percent
EC50: Effective concentration, 50 percent
LogPow: LogP octanol/water
VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (Administrative order relating to substances hazardous to water - Germany)
WGK: Wassergefahrdungsklasse (Water Hazard Class - Germany).
AVV: Abfallverzeichnis-Verordnung (Waste Code - Germany)
ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European agreement governing the international carriage of dangerous goods by road)
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
RID: Reglement international concernant le transport des merchandises dangereuses par chemin der fer (Regulations concerning the International carriage of Dangerous goods by rail)
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
ERG: Emergency Response Guidebook
IUCLID / RTECS International Uniform Chemical Information Database / Registry of Toxic Effects of Chemical Substances
GHS: Globally Harmonised System of classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
VOC: Volatile Organic Chemical
w/w: weight for weight
DMSO: Dimethyl sulphoxide
OECD: Organization for Economic Cooperation and Development
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
Further Information
Component test results displayed in sections 11 and 12 are typically supplied by Chemadvisor and assembled from publicly available literature literature sources e.g. IUCLID / RTECS
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations

Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet