SAFETY DATA SHEET

Revision Date: 06 October 2020 Version No: 2

1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product Identifier

Product Name: VANGUARD ALCAGEL® HAND SANITISER (70% ALCOHOL)

Product Codes:	100 ml:	H63035
	500 ml:	H63162
	1 L:	H63036
	2 L:	H63037
	5 L:	H63038

1.2 Relevant identified uses of the Mixture

Hand sanitiser

1.3 Details of the supplier of the Safety Data Sheet

Vanguard Chemicals (a division of)
Solar Medical & Chemical Ltd
B1a, Avondale Business Park
Avondale Way, Cwmbran,
NP44 1XE, UK
Tel: (+44) 01633 860818
Email: info@solarmedchem.co.uk

1.4 Emergency telephone number

(+44) 01633 860818 (09:00 – 17:00 Monday to Friday)

2. HAZARD IDENTIFICATION

2.1 Classification of the Mixture

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

Flam. Liq. 2; H225
Eye Irrit. 2; H319

2.1.2 Classification according to Directive 1999/45/EC

Flammable; R10
Irritating to eyes; R36

2.1.3 Additional information:

For full text of R-Phrases: See SECTION 16

2.2 Label Elements

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

Hazard pictograms

Signal Word: Danger

Hazard Statements:

H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation

Precautionary Statements:

P210:	Keep away from heat, sparks, open flames, hot surfaces and other ignition sources. No smoking.
P261:	Avoid breathing vapours
P301+P313	IF SWALLOWED: Seek medical advice
P305+P351+P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313:	If eye irritation persists, seek medical attention
P370 + P378	In case of fire, use foam carbon dioxide or dry powder

Supplemental Hazard Information:
Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Description of the mixture:

Substance Name	**CAS No.**	**EC No.**	**% concentration**
Ethanol	64-17-5	200-578-6	≥ 70 - <75%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation:	Remove to fresh air, rest in a position comfortable for breathing.
Following skin contact:	Rinse with water, seek medical attention for any allergic reaction.
Following eye contact:	Rinse with clean water, remove contact lenses if easy to do, continue rinsing thoroughly for at least 15 mins and seek optical attention.
Following ingestion:	Wash out mouth with water and seek medical attention. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms and effects, both acute and delayed will depend on concentration and length of exposure:

Following inhalation:	Vapours may cause drowsiness / dizziness
Following skin contact:	No specific symptoms: prolonged or excessively repeated contact may lead to removal of natural oils from the skin.
Following eye contact	Will cause temporary eye irritation
Following ingestion:	May cause discomfort if swallowed. Do not induce vomiting.

4.3 indication of any immediate medical attention and special treatment needed

Rinse with clean water

5. FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:
Use dry chemical powder, carbon dioxide, water spray or an alcohol resistant foam. Consult foam manufacturer for appropriate application rates and ratios. Water and water spray may only cool the fire, not extinguish the fire.
Unsuitable extinguishing media:
Ethanol is miscible in water and water alone may not put out an ethanol fire.

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. Avoid open flames, sparks and static discharges. Vapour may travel back a considerable distance to a source of ignition and flash back. Vapours may accumulate in low or confined areas. Runoff to sewers may create a fire hazard. Alcohols burn with a pale blue flame which may be hard to see under normal lighting conditions. Persons may only be able to feel the heat of the flame without seeing the flame.

5.3 Advice for Firefighters

Firefighters should wear approved self-contained breathing apparatus (SCBA) and firefighter personal gear. If possible, limit the amount of fuel available to the fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Apply an alcohol resistant foam. Containers may explode in heat or fire. Cool any surrounding bottles or boxes of sanitiser with water, remove if safe to do so and evacuate the area.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Protective Equipment

Use appropriate PPE. Avoid breathing vapours if any and ensure adequate ventilation. Avoid using tools which spark.

Emergency Procedures

Cordon off area to other personnel. Notify police and fire brigade immediately if bulk carrying. Eliminate all sources of ignition. Turn leaking containers lead-side up to prevent escape of liquid.

6.2 Environmental precautions

Do not discharge into surface water drains or rivers.

6.3 Methods and materials for containment and cleaning up

Absorb with dry earth or sand and dispose of in accordance with local regulations.

6.4 Reference to other sections

See section 8 and 13 for more information on exposure and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use in a well-ventilated place. Do not allow to enter surface water drains. Prevent spills

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well ventilated place, out of the reach of children. Keep away from sources of ignition and heat.

7.3 Specific end use(s)

Use only as directed on the label or container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

Ethanol OEL: 1000 ppm, 1920mg/m^3 8 hrs TWA

8.2 Exposure Controls

Eye and Face	Avoid contact with the eyes. Wear goggles
Hands:	Hand protection not required for intended use. PPE requirements for exposed long periods, in which case vinyl, latex or nitrile gloves should be worn.
Other Skin:	Not required unless PPE requirement is required for exposed long periods
Respiratory	Avoid inhalation in confined areas or for prolonged periods

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid
Colour	Colourless
Odour	Alcoholic
Odour Threshold	No data available
pH	6.5 – 8.0

Melting Point / Freezing Point	No data available
Initial Boiling Point	<100°C
Flash point	24°C
Evaporation Rate	No data available
Flammability	Highly flammable liquid and vapour
Upper /lower flammability or explosive limits	No data available
Vapour Pressure	No data available
Vapour density	(Ethanol): 0.8692 g/cm³ (@20 °C)
Relative density	No data available
Solubility	Ethanol is soluble in water
Partition coefficient: N-octanol / water	0.31
Auto-ignition temperature	(Ethanol): 362°C
Decomposition temperature	No data available
Viscosity	Pourable liquid @ 20°C
Explosive properties	N/A
Oxidising properties	N/A

9.2 Other Information
No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity
Non-reactive under recommended storage conditions

10.2 Chemical Stability
Stabile under normal ambient temperature conditions (-40°C to +40°C) and recommended use. .

10.3 Possibility of Hazardous Reactions
Potential for reactions with strong oxidising agents. The presence of oxygen above 20.9% will cause an increased fire risk.

10.4 Conditions to Avoid
Avoid heat, flames and other sources of ignition.

10.5 Incompatible Materials
Strong oxidising agents

10.6 Hazardous decomposition products
Thermal decomposition or combustion will liberate carbon oxides and other toxic gases or vapours.

11. TOXICOLOGICAL INFORMATION

No information regarding interactions between the ingredients in the mixture is available. Therefore, information shown overleaf relates to the relevant substance; Ethanol (CAS 64-17-5) used in the mixture.

Acute Toxicity:	Oral LD_{50}: > 6200 mg/kg (rat) Dermal LD_{50}: < 20,000 mg/kg (rabbit) Inhalation LD_{50}: < 8000 mg/L (4h) (Rat)
Skin Corrosion / Irritation:	Non irritating
Serious eye damage / irritation	Slightly irritating
Respiratory or skin sensitisation:	After inhalation: Not sensitising Guinea pig maximisation test: Not sensitising
Germ cell mutagenicity	No indications of human germ cell mutagenicity exist
Carcinogenicity	No indication of human carcinogenicity
Reproductive toxicity	No indications of human reproductive toxicity exist
CMR Effects	No indication of human carcinogenicity
STOT-Single exposure	N/A
STOT – Repeated exposure	N/A
Aspiration hazard:	N/A
Other Adverse Events	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Vapours may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness. Prolonged inhalation of high concentrations may damage respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. Harmful: possible risk of irreversible effects through inhalation Swallowing concentrated chemical may cause severe internal injury. Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication. Skin contact: Prolonged contact may cause dryness of the skin. Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Eye contact: Extreme irritation of eyes and mucous membranes, including burning and tearing. Risk of corneal damage.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No specific information is available for this mixture, therefore the following information regarding the relevant substance (Ethanol; CAS 64-17-5) is provided, even though it may be below the concentration limit and represent minimal or no toxicity to the environment.

Ethanol is not classified as environmentally hazardous, however this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Acute Toxicity

Fish (*Leuciscus idus* [Golden orfe]	LC_{50} 48 hours: > 100mg/L
Aquatic Invertebrates (*Daphnia magna*)	EC_{50} 48 hours: > 100mg/L
Aquatic Plants (*Selenastrum capricornutum*)	EC_{50} 48 hours: > 100mg/L

12.2 Persistence and degradability

The product is biodegradable. It oxidises rapidly by photochemical reactions in air. Integrated environmental half-life expected to be 1 - <10 days.

Dominant loss process – biodegradation.

12.3 Bioacumulative potential

Does not bioaccumulate significantly. Partition coefficient: 0.31

12.4 Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. The product is water soluble and may spread in water systems. The product will dissolve rapidly in water. Large volumes may penetrate soil and could contaminated ground water.

12.5 Results of PBT or vPvB substances

This product does not contain any substances classified as PBT or vPvB

12.6 Other adverse effects

The product contains ethanol (CAS: 64-17-5), a volatile organic compound, which has a photochemical ozone creation potential.

12.7 Additional information

Not applicable

13. DIPSPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Ensure empty containers are rinsed out and disposed of safely. Do not allow product to enter land or surface water drains. Dispose of in accordance with local regulations. Do not mix with other waste materials.

14. TRANSPORT INFORMATION

14.1	**UN Number**	UN 1987
14.2	**Shipping Name**	Vanguard Alcagel® Hand Sanitiser (70% Alcohol)
14.3	**Transport Hazard Class**	Alcohols (Ethanol), N.O.S

14.4	**Packing Group**	III

14.5	**Environmental Hazard**	Alcohols (Ethanol), N.O.S
14.6	**Special Precautions for User**	No information
14.7	**Transport in bulk according to Annex II of Marpol 73/78 and the IBC code**	No information

15. REGULATORY INFORMATION

15.1 Safety, health and environment regulation / legislation specific to the substance or mixture

EU Legislation:

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directive 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006.

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 (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC including amendments

15.2 Chemical Safety Assessment

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

16. OTHER INFORMATION

(i) Indication of changes

Not applicable

(ii) Abbreviations and acronyms

CLP	- Classification, Labelling and Packaging
ECHA	- European Chemicals Agency
N/A	- Not applicable
OEL	- Occupational Exposure Limit
PPE	- Personal Protective Equipment
PBT	- Persistent, bioaccumulative and toxic
TWA	- Time weighted average
vPvB	- Very persistent and very bioaccumulative
VOC	- Volatile Organic Compounds
%W/V	- Percentage weight / volume

(iii) Key literature references and sources of data

ECHA Guidance on the application of CLP Criteria (Version 5.0; July 2017)
ECHA Guidance on the compilation of safety data sheets (Version 3.1, Nov 2015)

ECHA (Ethanol) Substance Infocard

(iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 (CLP)

Classification according to Regulation (EC) Nr 1272/2008	Classification Procedure
Flam. Liq.2, H225	Substantially similar mixtures
Eye Irrit. 2; H319	Substantially similar mixtures

(v) Full text of statements referred to in section 2 and 3:

Hazard Statements in Full	H225:	Highly flammable liquid and vapour
	H319	Causes serious eye irritation
R Phrases in Full	R10	Flammable
	R36	Irritating to eyes

(vi) Training advice

Not applicable

(vii) Further Information:

Vanguard Alcagel® Hand Sanitiser (70% Alcohol) passes the requirements of BS EN 1276: 2019 and BS EN 1500: 2013.

The data contained in this Safety Data Sheet has been supplied for the purposes of protecting the health and safety of all those involved with the handling, use, processing, storage and transportation of the product - all of whom are deemed capable of understanding and acting on the information provided. It also provides guidance on safe disposal as well as firefighting and accidental release measures.

Legal disclaimer: The information contained in this document is based on information believed to be correct on the date of issue. No warranty or representation, expressed or implied, is made as to the accuracy or completeness of the information. The company shall not be held liable for any damage resulting from handling or from contact with the above product. The user assumes all liability for any damage or injury resulting from abnormal use, the failure to adhere to recommended practises, or from hazards inherent in the nature of the product.

The company reserves the right to amend any specification without notice.

Alcagel® is a registered trademark of Solar Medical and Chemical Ltd