

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758



VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

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

1.1 Product identifier

Trade name : VIRKOSAN
Product code : 00000000062594636
UFI : EY86-S061-E00Q-9FS7

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

Use of the Sub-stance/Mixture : Biocidal product, Hand Sanitizer

1.3 Details of the supplier of the safety data sheet

Company : Antec International Limited
Windham Road
CO10 2XD Sudbury / Suffolk
Chilton Industrial Estate, Great Britain

Responsible Department : +49 221 8885 2288
infosds@lanxess.com

1.4 Emergency telephone number

Emergency telephone number : For 24/7 multilingual emergency please call
CHEMTREC EMEA: +44 20 3885 0382 and mention CCN
1001748.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK
SI 2019/720, and UK SI 2020/1567)**

Flammable liquids, Category 2 H225: Highly flammable liquid and vapour.
Eye irritation, Category 2 H319: Causes serious eye irritation.

2.2 Label elements



**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI
2019/720, and UK SI 2020/1567)**

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

Hazard pictograms	:	 
Signal word	:	Danger
Hazard statements	:	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.
Precautionary statements	:	Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. Response: P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P337 + P313 If eye irritation persists: Get medical advice/ attention. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
ethanol	64-17-5 200-578-6 603-002-00-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 70 - < 90

For explanation of abbreviations see section 16.

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- Protection of first-aiders : No action shall be taken involving any personal risk or without
suitable training.
- If inhaled : If unconscious, place in recovery position and seek medical
advice.
- In case of skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
-

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or car-
bon dioxide.
- Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water
courses.
- Hazardous combustion prod- : Carbon dioxide (CO₂)
-

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

VIRKOSAN

Version	Revision Date:	SDS Number:	Date of last issue: 05.03.2021
4.0	13.06.2022	215000009178	Country / Language: GB / 6N (EN)

ucts Carbon monoxide

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758



VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

Do not smoke.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.

Smoking, eating and drinking should be prohibited in the application area.

Open drum carefully as content may be under pressure.

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment.

Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage stability : Stable under recommended storage conditions.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	TWA	1,000 ppm	GB EH40

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758



VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

			1,920 mg/m3	
--	--	--	-------------	--

8.2 Exposure controls

Engineering measures

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : Polyvinyl chloride - PVC
Break through time : > 480 min
Glove thickness : 0.35 mm

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Impervious clothing

Respiratory protection : No personal respiratory protective equipment normally required.
In the case of vapour formation use a respirator with an approved filter.

Filter type : Recommended Filter type:
Combined inorganic and acidic gas/vapour, ammonia/amines and organic vapour type (ABEK)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : gel

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

Physical state	:	liquid
Colour	:	transparent
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	14 °C
Decomposition temperature	:	No data available No data available
pH	:	6.5 - 7.5 Concentration: 100 %
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	0.9 g/cm ³ (20 °C)

9.2 Other information

Explosives : No data available

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version	Revision Date:	SDS Number:	Date of last issue: 05.03.2021
4.0	13.06.2022	215000009178	Country / Language: GB / 6N (EN)

Oxidizing properties	:	No data available
Flammable solids	:	
Burning number	:	No data available
Self-ignition	:	No data available
Evaporation rate	:	No data available
Miscibility with water	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Polymerisation can occur.

Under normal conditions of storage and use, hazardous reactions will not occur.
Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Incompatible with acids and bases.
Oxidizing agents

10.6 Hazardous decomposition products

Carbon oxides
Organic Substances

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

ethanol:

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

Acute oral toxicity : LD50 (Rat, male and female): 10,470 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute inhalation toxicity : LC50 (Rat, male and female): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
GLP: no

Skin corrosion/irritation

Components:

ethanol:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

Serious eye damage/eye irritation

Components:

ethanol:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irritating to eyes.

Respiratory or skin sensitisation

Components:

ethanol:

Exposure routes : Skin contact
Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

ethanol:

Genotoxicity in vitro : Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test system: mouse lymphoma cells

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Repeated dose toxicity

Components:

ethanol:

Species : Rat, male
NOAEL : > 20 mg/l
Application Route : Inhalation
Exposure time : 26 d
Number of exposures : Continuous
Dose : 20 mg/l
Remarks : Subacute toxicity

Further information

Product:

Remarks : No data available
Remarks : Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

ethanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 14,200 mg/l
Exposure time: 96 h
Remarks: Fresh water

Toxicity to daphnia and other : LC50 (Ceriodaphnia dubia (water flea)): 5,012 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: ASTM E729
Remarks: Fresh water

Toxicity to algae/aquatic : ErC50 (Chlorella vulgaris (Fresh water algae)): 675 mg/l
plants : Exposure time: 4 d
Method: OECD Test Guideline 201
Remarks: Fresh water

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 6,500 mg/l
Exposure time: 16 h
Method: DIN 38412

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version	Revision Date:	SDS Number:	Date of last issue: 05.03.2021
4.0	13.06.2022	215000009178	Country / Language: GB / 6N (EN)

Remarks: Fresh water

12.2 Persistence and degradability

Components:

ethanol:

Biodegradability : Test Type: aerobic
Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

12.3 Bioaccumulative potential

Components:

ethanol:

Partition coefficient: n- : log Pow: -0.35 (24 °C)
octanol/water Method: OECD Test Guideline 107

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

Product:

Additional ecological infor- : No data available
mation

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Send to a licensed waste management company.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

SECTION 14: Transport information

14.1 UN number

ADN : UN 1170
ADR : UN 1170
RID : UN 1170
IMDG : UN 1170
IATA : UN 1170

14.2 UN proper shipping name

ADN : ETHANOL SOLUTION
ADR : ETHANOL SOLUTION
RID : ETHANOL SOLUTION
IMDG : ETHANOL SOLUTION
IATA : Ethanol solution

14.3 Transport hazard class(es)

ADN : 3
ADR : 3
RID : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADN
Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3
:



ADR
Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version 4.0 Revision Date: 13.06.2022 SDS Number: 215000009178 Date of last issue: 05.03.2021
Country / Language: GB / 6N (EN)

: 

Tunnel restriction code : (D/E)

RID

Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3



IMDG

Packing group : II
Labels : 3



EmS Code : F-E, S-D

IATA (Cargo)

Packing instruction (cargo aircraft) : 364 : 60.00 L
Packing group : II
Labels : 3



IATA (Passenger)

Packing instruction (passenger aircraft) : 353 : 5.00 L
Packing group : II
Labels : 3



14.5 Environmental hazards

ADN

Environmentally hazardous : no

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758



VIRKOSAN

Version	Revision Date:	SDS Number:	Date of last issue: 05.03.2021
4.0	13.06.2022	215000009178	Country / Language: GB / 6N (EN)

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Hazard and Handling Notes. : Highly flammable.
Keep separated from foodstuffs.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

International Chemical Weapons Convention (CWC)
Schedules of Toxic Chemicals and Precursors : 2,2',2''-nitrotriethanol

REACH - Candidate List of Substances of Very High
Concern for Authorisation (Article 59). : This product does not contain sub-
stances of very high concern (Regu-
lation (EC) No 1907/2006 (REACH),
Article 57).

Regulation (EC) No 1005/2009 on substances that de-
plete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-
tants (recast) : Not applicable

Council Regulation (EC) No 111/2005 laying down rules : Neither banned nor restricted
for the monitoring of trade between the Community and
third countries in drug precursors.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of
major-accident hazards involving dangerous substances.
P5c FLAMMABLE LIQUIDS

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758

VIRKOSAN

Version	Revision Date:	SDS Number:	Date of last issue: 05.03.2021
4.0	13.06.2022	215000009178	Country / Language: GB / 6N (EN)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H319 : Causes serious eye irritation.

Full text of other abbreviations

Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Classification of the mixture:

Classification procedure:

SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by
UK REACH Regulations SI 2019/758



VIRKOSAN

Version 4.0	Revision Date: 13.06.2022	SDS Number: 215000009178	Date of last issue: 05.03.2021 Country / Language: GB / 6N (EN)
----------------	------------------------------	-----------------------------	--

Flam. Liq. 2	H225	Based on product data or assessment
Eye Irrit. 2	H319	Calculation method

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered to be a guidance for processing and does not contain any 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 materials or in any process, unless specified in the text. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.