

SPIRIGEL PLUS**Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

Product name : SPIRIGEL PLUS

Product code : 119089E

Use of the
Substance/Mixture : Hand Sanitizer

Substance type: : Mixture

For professional and nonprofessional users.

Product dilution information : No dilution information provided.

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

Identified uses : Skin disinfectant

Recommended restrictions
on use : Reserved for industrial and professional use.**1.3 Details of the supplier of the safety data sheet**Company : Ecolab Ltd.
PO Box 11; Winnington Avenue
Northwich, Cheshire, United Kingdom CW8 4DX
+ 44 (0)1606 74488
ccs@ecolab.com**1.4 Emergency telephone number**Emergency telephone
number : +441618841235
+32-(0)3-575-5555 Trans-EuropeanPoison Information Centre
telephone number : For medical professionals only: 0344 892 0111

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Version : 1.5

Section: 2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**Flammable liquids, Category 2
Eye irritation, Category 2H225
H319**2.2 Label elements****Labelling (REGULATION (EC) No 1272/2008)**

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Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

: H225
H319Highly flammable liquid and vapour.
Causes serious eye irritation.

Precautionary Statements

: P102
Prevention:
P210

Keep out of reach of children.

Keep away from heat, hot surfaces, sparks,
open flames and other ignition sources. No
smoking.**Response:**P305 + P351 + P338 IF IN EYES: Rinse cautiously with water
for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.**2.3 Other hazards**

None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Hazardous components**

| Chemical Name | CAS-No. EC-No. REACH No. | Classification REGULATION (EC) No 1272/2008 | Concentration : [%] |
|--|--|--|------------------------|
| ethanol | 64-17-5 200-578-6 01-2119457610-43 | Flammable liquids Category 2; H225 Serious eye damage/eye irritation Category 2; H319 Serious eye damage/eye irritation Category 2 50 - 100 % | ≥ 50 - ≤ 100 |
| Isopropyl Alcohol | 67-63-0 200-661-7 01-2119457558-25 | Flammable liquids Category 2; H225 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H336 | ≥ 1 - < 2.5 |
| Substances with a workplace exposure limit : | | | |
| glycerin | 56-81-5 200-289-5 01-2119471987-18 | Not Classified; | ≥ 0.25 - < 0.5 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section: 4. FIRST AID MEASURES**4.1 Description of first aid measures**

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for
at least 15 minutes. Remove contact lenses, if present and easy

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to do. Continue rinsing. Get medical attention.

- In case of skin contact : Get medical attention if symptoms occur.
- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Fire Hazard
Keep away from heat and sources of ignition.
Flash back possible over considerable distance.
Beware of vapours accumulating to form explosive concentrations.
Vapours can accumulate in low areas.
- Hazardous combustion products : Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NO_x)

5.3 Advice for firefighters

- Special protective equipment for firefighters : Use personal protective equipment.
- Further information : Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Advice for non-emergency personnel : Remove all sources of ignition. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Advice for emergency : If specialised clothing is required to deal with the spillage, take

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responders

note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. 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). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Advice on safe handling : Handle at room temperature. Keep away from fire, sparks and heated surfaces. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Open drum carefully as content may be under pressure. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Hygiene measures : No specific measures identified.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 5 °C to 25 °C

7.3 Specific end uses

Specific use(s) : Skin disinfectant

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 | UKCOSSTD |

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| | | | | |
|-------------------|---------|------------|------------------------|----------|
| | | | 1,920 mg/m3 | |
| Isopropyl Alcohol | 67-63-0 | STEL | 500 ppm 1,250 mg/m3 | UKCOSSTD |
| | | TWA | 400 ppm 999 mg/m3 | UKCOSSTD |
| glycerin | 56-81-5 | TWA (Mist) | 10 mg/m3 | UKCOSSTD |

DNEL

| | | |
|-------------------|---|---|
| Isopropyl Alcohol | : | <p>End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects 888 mg/kg</p> <p>End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 500 mg/m3</p> <p>End Use: Consumers Exposure routes: Dermal Potential health effects: Long-term systemic effects 319 mg/kg</p> <p>End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 89 mg/m3</p> <p>End Use: Consumers Exposure routes: Ingestion Potential health effects: Long-term systemic effects 26 mg/kg</p> |
|-------------------|---|---|

PNEC

| | | |
|-------------------|---|--|
| Isopropyl Alcohol | : | <p>Fresh water Value: 140.9 mg/l</p> <p>Marine water Value: 140.9 mg/l</p> <p>Intermittent use/release Value: 140.9 mg/l</p> <p>Fresh water Value: 552 mg/kg</p> <p>Marine sediment Value: 552 mg/kg</p> <p>Soil Value: 28 mg/kg</p> <p>Sewage treatment plant Value: 2251 mg/l</p> <p>Oral Value: 160 mg/kg</p> |
|-------------------|---|--|

SPIRIGEL PLUS**8.2 Exposure controls****Appropriate engineering controls**

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : No specific measures identified.

Eye/face protection (EN 166) : No special protective equipment required.

Hand protection (EN 374) : No special protective equipment required.

Skin and body protection (EN 14605) : No special protective equipment required.

Respiratory protection (EN 143, 14387) : No personal respiratory protective equipment normally required.

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

| | |
|---|--|
| Appearance | : viscous |
| Colour | : colourless |
| Odour | : alcohol-like |
| pH | : 5.0 - 5.5, 100 % |
| Flash point | : 22 °C closed cup |
| Odour Threshold | : Not applicable and/or not determined for the mixture |
| Melting point/freezing point | : Not applicable and/or not determined for the mixture |
| Initial boiling point and boiling range | : Not applicable and/or not determined for the mixture |
| Evaporation rate | : Not applicable and/or not determined for the mixture |
| Flammability (solid, gas) | : Not applicable and/or not determined for the mixture |
| Upper explosion limit | : Not applicable and/or not determined for the mixture |
| Lower explosion limit | : Not applicable and/or not determined for the mixture |
| Vapour pressure | : Not applicable and/or not determined for the mixture |
| Relative vapour density | : Not applicable and/or not determined for the mixture |
| Relative density | : 0.86 - 0.869 |
| Water solubility | : soluble |
| Solubility in other solvents | : Not applicable and/or not determined for the mixture |
| Partition coefficient: n- | : Not applicable and/or not determined for the mixture |

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octanol/water

Auto-ignition temperature : Not applicable and/or not determined for the mixture

Thermal decomposition : Not applicable and/or not determined for the mixture

Viscosity, kinematic : Not applicable and/or not determined for the mixture

Explosive properties : Not applicable and/or not determined for the mixture

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:

Carbon oxides

nitrogen oxides (NO_x)

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Product

Acute oral toxicity : There is no data available for this product.

Acute inhalation toxicity : There is no data available for this product.

Acute dermal toxicity : There is no data available for this product.

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Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye irritation : There is no data available for this product.

Respiratory or skin sensitization : There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

Components

Acute oral toxicity : ethanol LD50 rat: 10,470 mg/kg
Isopropyl Alcohol LD50 rat: 5,840 mg/kg
glycerin LD50 rat: 18,300 mg/kg

Components

Acute inhalation toxicity : ethanol 4 h LC50 rat: 117 mg/l
Test atmosphere: vapour
Isopropyl Alcohol 4 h LC50 rat: > 30 mg/l
Test atmosphere: vapour

Components

Acute dermal toxicity : ethanol LD50 rabbit: 15,800 mg/kg
Isopropyl Alcohol LD50 rabbit: 12,870 mg/kg
glycerin LD50 rabbit: 23,000 mg/kg

Potential Health Effects

Eyes : Causes serious eye irritation.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

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| | |
|--------------|----------------------------------|
| Eye contact | : Redness, Pain, Irritation |
| Skin contact | : No symptoms known or expected. |
| Ingestion | : No symptoms known or expected. |
| Inhalation | : No symptoms known or expected. |

Section: 12. ECOLOGICAL INFORMATION

12.1 Toxicity

| | |
|-----------------------|---|
| Environmental Effects | : This product has no known ecotoxicological effects. |
|-----------------------|---|

Product

| | |
|---|---------------------|
| Toxicity to fish | : no data available |
| Toxicity to daphnia and other aquatic invertebrates | : no data available |
| Toxicity to algae | : no data available |

Components

| | |
|------------------|---|
| Toxicity to fish | : ethanol96 h LC50 Pimephales promelas (fathead minnow): > 100 mg/l |
| | Isopropyl Alcohol96 h LC50 Pimephales promelas (fathead minnow): 9,640 mg/l |
| | glycerin96 h LC50 Fish: 855 mg/l |

Components

| | |
|---|--|
| Toxicity to daphnia and other aquatic invertebrates | : ethanol48 h EC50 Aquatic Invertebrate: 857 mg/l |
| | Isopropyl Alcohol LC50 Daphnia magna (Water flea): > 10,000 mg/l |

12.2 Persistence and degradability

Product

no data available

Components

| | |
|------------------|---|
| Biodegradability | : ethanolResult: Readily biodegradable. |
| | Isopropyl AlcoholResult: Readily biodegradable. |
| | glycerinResult: Readily biodegradable. |

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

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no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment : 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.

12.6 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product : Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Guidance for Waste Code selection : Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number : 1170

14.2 UN proper shipping name : ETHANOL SOLUTION

14.3 Transport hazard class(es) : 3

14.4 Packing group : II

14.5 Environmental hazards : No

14.6 Special precautions for user : None

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Air transport (IATA)

Contact Regulatory for air freight eligibility

Sea transport (IMDG/IMO)

14.1 UN number : 1170
14.2 UN proper shipping name : ETHANOL SOLUTION
14.3 Transport hazard class(es) : 3
14.4 Packing group : II
14.5 Environmental hazards : No
14.6 Special precautions for user : None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

Section: 15. REGULATORY INFORMATION

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

Seveso III: Directive : FLAMMABLE LIQUIDS P5c
2012/18/EU of the European Lower tier : 5,000 t
Parliament and of the Council Upper tier : 50,000 t
on the control of major-
accident hazards involving
dangerous substances.

Candidate List of Substances : Not applicable.
of Very High Concern for
Authorisation

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

Other regulations : The Chemicals (Hazard Information and Packaging for Supply) Regulations.
The Control of Substances Hazardous to Health Regulations.
Health and Safety at Work Act.

15.2 Chemical Safety Assessment

Information from the chemical safety assessment of substances present in the product is included in the appropriate sections of this safety data sheet, whenever necessary.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

| Classification | Justification |
|---------------------------|-------------------------------------|
| Flammable liquids 2, H225 | Based on product data or assessment |
| Eye irritation 2, H319 | Calculation method |

Full text of H-Statements

H225 Highly flammable liquid and vapour.

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| | |
|------|------------------------------------|
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European 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; TECL - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

Annex: Exposure Scenarios

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