

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

ECSLAB

| | Product name | : | Spirigel Complete | | |
|-----|---------------------------------|------|--|--|--|
| | Product code | : | 116088E | | |
| | Use of the Substance/Mixture | : | Hand Sanitizer | | |
| | Type of substance | : | Mixture | | |
| | | | For professional users only. | | |
| | Product dilution information | : | No dilution information provided. | | |
| 1.2 | Relevant identified uses of t | he | 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 | e sa | fety 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 | 1.4 Emergency telephone number | | | | |
| | Emergency telephone number | : | Food & Beverage, Institutional, Agriculture, Textile Hygiene: Northwich: +44 (0)1606 74488 Healthcare: | | |

| number | | Northwich: +44 (0)1606 74488 Healthcare: Leeds: +44 (0)113 232 2480 Swansea: +44 (0)1252 717616 |
|--|---|--|
| Poison Information Centre telephone number | : | Not Available |
| Date of Compilation/Revision version | : | 03.06.2014 1.0 |

Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)Flammable liquids , Category 2H225Classification (67/548/EEC, 1999/45/EC)F; HIGHLY FLAMMABLER11

:

Spirigel Complete

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

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

| Signal Word | : Danger | |
|--------------------------|------------------------------|---|
| Hazard Statements | : H225 | Н |
| Precautionary Statements | : Prevention: P210 | K |

Highly flammable liquid and vapour.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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 (67/548/EEC) | Classification (REGULATION (EC) No 1272/2008) | Concentration: [%] |
|--|--------------------------------|--------------------------------|---|-----------------------|
| ethanol 64-17-5 200-578-6 01-2119457610-43 | | F; R11 | Flammable liquidsCategory 2; H225 | >= 50 - <= 100 |
| WEL Substance : | | | | |
| glycerin | 56-81-5 200-289-5 | Not Classified | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. | >= 1 - < 2.5 |

For the full text of the R-phrases mentioned in this Section, see Section 16. 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 with water. |
|-------------------------|---|
| In case of skin contact | : Rinse with water. |
| 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 | : | Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus |
| 5.3 | Advice for firefighters | | |
| | Special protective equipment for firefighters | : | Use personal protective equipment. |

| Further information | Use water spray to cool unopened containers. Fire rescontaminated fire extinguishing water must be dispose accordance with local regulations. In the event of fire a explosion do not breathe fumes. | ed of in |
|---------------------|--|----------|
| | 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. Refer to protective measures listed in sections 7 and 8. |
|---------------------------------------|---|--|
| Advice for emergency responders | : | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. |

6.2 Environmental precautions

| Spirigel | Complete | |
|----------|----------|--|
|----------|----------|--|

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 | : Keep away from fire, sparks and heated surfaces. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). | | |
|--|--|--|--|
| 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. | | |

7.3 Specific end use(s)

Storage temperature

Specific use(s) : Skin disinfectant

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

: 0 °C to 25 °C

8.1 Control parameters

Occupational Exposure Limits

| CAS-No. | Components | Value type (Form of exposure) | Control parameters | Update | Basis |
|---------|------------|-------------------------------------|--------------------------|------------|----------|
| 64-17-5 | ethanol | TWA | 1,000 ppm 1,920 mg/m3 | 2005-04-06 | UKCOSSTD |
| 56-81-5 | glycerin | TWA (Mist) | 10 mg/m3 | 2011-12-01 | UKCOSSTD |

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) | : | None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, 89/686/EEC), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization. | | |

Environmental exposure controls

| General advice | : Consider the provision of containment around storage vessels | s. |
|-----------------|--|----|
| e enter a a nee | e energe recerciente a containinent a contage recoord | |

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| Appearance | : gel |
|--|---------------------|
| Colour | : Colourless |
| Odour | : alcohol-like |
| рН | : 8.0, 100 % |
| Flash point | : 17 °C closed cup |
| Odour Threshold | : no data available |
| Melting point/freezing point | : no data available |
| Initial boiling point and boiling range | : no data available |
| Evaporation rate | : no data available |
| Flammability (solid, gas) | : no data available |
| Upper explosion limit | : no data available |
| Lower explosion limit | : no data available |
| Vapour pressure | : no data available |
| Relative vapour density | : no data available |
| Relative density | : 0.83 |
| Water solubility | : soluble |
| Solubility in other solvents | : no data available |

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| Partition coefficient: n- octanol/water | : no data available |
|--|--|
| Auto-ignition temperature | : no data available |
| Thermal decomposition | : no data available |
| Viscosity, kinematic | : no data available |
| Explosive properties | : no data available |
| Oxidizing properties | : The substance or mixture is not classified as oxidizing. |

9.2 Other information

no data available

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

Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| Information on likely routes of exposure | : | Inhalation, Eye contact, Skin contact |
|--|---|--|
| Toxicity | | |
| Acute oral toxicity | : | There is no data available for this product. |
| Acute inhalation toxicity | : | There is no data available for this product. |

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| Acute dermal toxicity | : There is no data available for this product. | | | |
|-----------------------------------|---|--|--|--|
| 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 | | | |
| | glycerin LD50 rat: 18,300 mg/kg | | | |
| Acute inhalation toxicity | : ethanol 4 h LC50 rat: 117 mg/l | | | |
| Acute dermal toxicity | : ethanol LD50 rabbit: 15,800 mg/kg | | | |
| | glycerin LD50 rabbit: 23,000 mg/kg | | | |
| Potential Health Effects | | | | |
| 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 | | | | |
| Eye contact | : No symptoms known or expected. | | | |
| Skin contact | : No symptoms known or expected. | | | |
| Ingestion | : No symptoms known or expected. | | | |

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

| Spirigel Complete | |
|---|---|
| Inhalation | : No symptoms known or expected. |
| Section: 12. ECOLOGICAL INFO | RMATION |
| 2.1 Ecotoxicity | |
| 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 | : ethanol 96 h LC50 Fish : 11,000 mg/l |
| | glycerin 96 h LC50 Fish : 855 mg/l |
| 2.2 Persistence and degradabil | lity |
| no data available | |
| 2.3 Bioaccumulative potential | |

no data available

12.4 Mobility in soil

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

: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local

| Spirigel Complete | |
|--------------------------|--|
| | 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. |
| European Waste Catalogue | : 200113* - solvents |

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

Section: 15. REGULATORY INFORMATION

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

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

This product contains substances for which Chemical Safety Assessments are still required.

Section: 16. OTHER INFORMATION

Full text of R-Phrases

| Not Classified | Not Classified |
|----------------|-------------------|
| R11 | Highly flammable. |

Full text of H-Statements

H225

Highly flammable liquid and vapour.

Full text of other abbreviations

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

DPD+ Substances:

The following substances are the lead substances that contribute to the mixture Exposure Scenario according to the DPD+ Rule:

| Route | Substance | CAS-No. | EINECS-No. |
|---------------------|-------------------|---------|------------|
| Ingestion | No lead substance | | |
| Inhalation | No lead substance | | |
| Dermal | No lead substance | | |
| Eyes | No lead substance | | |
| aquatic environment | No lead substance | | |

To calculate if your downstream Operating Conditions and Risk management Measures are safe, please calculate your risk factor at the website below:

www.ecetoc.org/tra

| Short title of Exposure Scenario | : | Skin disinfectant |
|-------------------------------------|---|---|
| Use descriptors | | |
| Main User Groups | : | Professional uses: Public domain (administration, education, entertainment, services, craftsmen) |
| Sectors of end-use | : | SU22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen) |
| Process categories | : | PROC10: Roller application or brushing PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities |
| Product categories | : | PC35: Washing and cleaning products (including solvent based products) |
| Environmental Release Categories | : | ERC8a: Wide dispersive indoor use of processing aids in open systems |