



**SAFETY DATA SHEET**  
**Zoflora Concentrated Disinfectant**

Revision date: 07.12.10

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**1. Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Zoflora Concentrated Disinfectant (all perfumes)

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

**1.3. Details of the supplier of the safety data sheet**

Thornton & Ross Ltd, Linthwaite, Huddersfield, HD7 5QH  
Tel: 01484 842217 Fax: 01484 847301 Email: [sds@thorntonross.com](mailto:sds@thorntonross.com)

**1.4. Emergency telephone number:**  
Out of normal working hours: +44 7772 316898

**2. Hazards identification - Bouquet**

**2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Irritating to eyes and skin, Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**2.2. Label elements**

*Pictogram*



*Hazard Class*

**Flammable, Harmful, Irritant**

**Risk phrases**

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

R36/38 Irritating to eyes and skin

R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**Safety phrases**

S2 Keep out of reach of children

S16 Keep away from sources of ignition ó No smoking

S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37 Wear suitable protective clothing and gloves

S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

Contains limonene. May produce an allergic reaction.

**2. Hazards identification – Citrus Fresh****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Irritating to skin, May cause sensitisation by skin contact, Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**2.2. Label elements***Pictogram**Hazard Class***Flammable, Harmful, Irritant****Risk phrases**

R11 Highly flammable  
R21/22 Harmful in contact with skin and if swallowed  
R38 Irritating to skin  
R43 May cause sensitisation by skin contact  
R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**Safety phrases**

S2 Keep out of reach of children  
S16 Keep away from sources of ignition ó No smoking  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

N/A

**2. Hazards identification – Cool and Fresh****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**2.2. Label elements***Pictogram**Hazard Class***Flammable, Harmful****Risk phrases**

R11 Highly flammable  
R21/22 Harmful in contact with skin and if swallowed  
R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**Safety phrases**

S2 Keep out of reach of children  
S16 Keep away from sources of ignition ó No smoking  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

Contains limonene. May produce an allergic reaction.

**2. Hazards identification – Flowershop****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Irritating to eyes and skin

**2.2. Label elements***Pictogram**Hazard Class***Flammable, Harmful, Irritant****Risk phrases**

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

R36/38 Irritating to eyes and skin

**Safety phrases**

S2 Keep out of reach of children

S16 Keep away from sources of ignition ó No smoking

S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37 Wear suitable protective clothing and gloves

S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

Contains dimethyl-3-cyclohexene-1-carboxaldehyde. May produce an allergic reaction.

**2. Hazards identification – Hyacinth****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Irritating to eyes.

**2.2. Label elements***Pictogram**Hazard Class***Flammable, Harmful, Irritant****Risk phrases**

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

R36 Irritating to eyes

**Safety phrases**

S2 Keep out of reach of children

S16 Keep away from sources of ignition ó No smoking

S25 Avoid contact with eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

### 2.3. Other hazards

Contains hexylcinnamic aldehyde. May produce an allergic reaction.

## 2. Hazards identification – Lavender

### 2.1. Classification of the substance or mixture

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

### 2.2. Label elements

*Pictogram*



*Hazard Class*

Flammable, Harmful

### Risk phrases

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

### Safety phrases

S2 Keep out of reach of children

S16 Keep away from sources of ignition ó No smoking

S36/37 Wear suitable protective clothing and gloves

S46 If swallowed seek medical advice immediately and show this container or label

### 2.3. Other hazards

Contains limonene. May produce an allergic reaction.

## 2. Hazards identification – Lilac

### 2.1. Classification of the substance or mixture

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed

### 2.2. Label elements

*Pictogram*



*Hazard Class*

Flammable, Harmful

**Risk phrases**

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

**Safety phrases**

S2 Keep out of reach of children

S16 Keep away from sources of ignition ó No smoking

S36/37 Wear suitable protective clothing and gloves

S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

Contains hydroxycitronellal. May produce an allergic reaction.

**2. Hazards identification -Lily Fresh****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed.

**2.2. Label elements***Pictogram**Hazard Class*

Flammable, Harmful

**Risk phrases**

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

**Safety phrases**

S2 Keep out of reach of children

S16 Keep away from sources of ignition ó No smoking

S36/37 Wear suitable protective clothing and gloves

S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

Contains hexylcinnamic aldehyde. May produce an allergic reaction.

**2. Hazards identification - Rose****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Irritating to eyes and skin, May cause sensitisation by skin contact, Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

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## 2.2. Label elements

### Pictogram



### Hazard Class

**Flammable, Harmful, Irritant**

### Risk phrases

R11 Highly flammable  
R21/22 Harmful in contact with skin and if swallowed  
R36/38 Irritating to eyes and skin  
R43 May cause sensitisation by skin contact  
R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

### Safety phrases

S2 Keep out of reach of children  
S16 Keep away from sources of ignition ó No smoking  
S24/25 Avoid contact with skin and eyes  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

## 2.3. Other hazards

N/A

## 2. Hazards identification – Springtime

### 2.1. Classification of the substance or mixture

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

## 2.2. Label elements

### Pictogram



### Hazard Class

**Flammable, Harmful**

### Risk phrases

R11 Highly flammable  
R21/22 Harmful in contact with skin and if swallowed  
R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

### Safety phrases

S2 Keep out of reach of children  
S16 Keep away from sources of ignition ó No smoking  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

## 2.3. Other hazards

Contains benzyl salicylate. May produce an allergic reaction.

**2. Hazards identification – Sweetpea****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed, Irritating to skin, May cause sensitisation by skin contact.

**Label elements***Pictogram**Hazard Class***Flammable, Harmful, Irritant****Risk phrases**

R11 Highly flammable  
R21/22 Harmful in contact with skin and if swallowed  
R38 Irritating to skin  
R43 May cause sensitisation by skin contact

**Safety phrases**

S2 Keep out of reach of children  
S16 Keep away from sources of ignition ó No smoking  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

**2.2. Other hazards**

N/A

**2. Hazards identification – Winter Spice****2.1. Classification of the substance or mixture**

According to Directive 67/548/EEC classified as Highly flammable, Harmful in contact with skin and if swallowed,

**2.2. Label elements***Pictogram**Hazard Class***Flammable, Harmful****Risk phrases**

R11 Highly flammable  
R21/22 Harmful in contact with skin and if swallowed

**Safety phrases**

S2 Keep out of reach of children  
S16 Keep away from sources of ignition ó No smoking  
S36/37 Wear suitable protective clothing and gloves  
S46 If swallowed seek medical advice immediately and show this container or label

**2.3. Other hazards**

Contains eugenol. May produce an allergic reaction.



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**3. Composition/information on ingredients**

**3.1. Substances**

Substance	CAS- No	%	Symbols	R phrases	H statements
Benzalkonium chloride	68989-00-4	<5	C, N	21/22, 34, 50	312, 302, 314, 400
Ethanol	64-17-5	65 - 70	F	11	225
Methanol	67-56-1	<3	F, T	11, 23/24/25, 39/23/24/25	225, 331, 311, 301, 370
Perfume - Bouquet	N/A	5 - 15	Xi, N	36/38, 43, 51/52	
Citrus			Xn, N	38, 43, 65, 51/53	
Cool&Fresh			Xi, N	43, 51/53	
Flowershop			Xi	36/38, 43, 52/53	
Hyacinth			Xn	36, 43, 52/53, 65	
Lavender			Xi, N	43, 51/53	
Lilac			Xi	43, 52/53	
Lily Fresh			Xi	43, 52/53	
Rose			Xi, N	38, 41, 43, 51/53	
Springtime			Xi, N	43, 51/53	
Sweetpea			Xi, N	38, 43, 51/53	
WinterSpice			Xi	43, 52/53	

**4. First aid measures**

**4.1. Description of first aid measures**

*Eyes* –Rinse with plenty of water for at least 10 minutes, keeping the eye lids open if necessary. Get medical attention.

*Ingestion* – Wash out mouth with water and then drink plenty of water. Do not induce vomiting. Get medical attention.

*Skin* – Wash skin thoroughly with water. If irritation persists seek medical advice.

*Inhalation* óRemove from exposure and get fresh air. Get medical attention.

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

May irritate the skin and eyes. Ingestion or inhalation of large quantities may cause intoxication.

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

If not sure about any symptoms contact a doctor or emergency service.

**5. Fire fighting measures**

**5.1. Extinguishing media**

*Suitable extinguishing media* ó water spray, foam, dry chemical or carbon dioxide.

*Unsuitable extinguishing media* ó Do not use water jet.

**5.2. Special hazards arising from the substance or mixture**

May produce carbon dioxide, carbon monoxide and alcohol fumes.

**5.3. Advice for fire-fighters**

Wear self contained breathing apparatus and protective clothing.



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**6. Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Extinguish sources of ignition. Wear appropriate protective clothing, Avoid contact with eyes and skin.

**6.2. Environmental precautions**

Prevent material entering drains and watercourses. Advise local authorities if spillage has entered watercourses and sewer.

**6.3. Methods and material for containment and cleaning up**

Absorb onto inert material and transfer to suitable containers for disposal by a licensed waste contractor.

**6.4. Reference to other sections**

See section 8 for protective equipment requirements.

**7. Handling and storage**

**7.1. Precautions for safe handling**

Avoid contact with eyes and skin. Handle in well ventilated area to prevent build up of vapour. Avoid static discharge and sources of ignition.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in well closed containers in a cool place, away from sources of ignition.

**7.3. Specific end use(s)**

N/A

**8. Exposure controls/personal protection**

**8.1. Control parameters**

Short term exposure limit as methanol ≤ 250ppm  
Long term exposure limits as methanol ≤ 200ppm, as ethanol ≤ 1000ppm.

**8.2. Exposure controls**

*Engineering Controls* – provide adequate ventilation.

*Eye/face Protection* – chemical goggles or safety glasses

*Hand protection* – Rubber gloves.

*Skin protection* – overalls must be worn when handling large quantities.

*Other protection* – n/a.

*Respiratory protection* – if ventilation is insufficient, wear respiratory protection.

**9. Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

*Appearance* – clear yellow mobile liquid

*Explosive limit % (Upper)* ≤ 19% (ethanol)

*Odour* – perfumed

*Explosive limit % (lower)* ≤ 3.3% (ethanol)



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<i>pH</i> – not available	<i>Vapour pressure</i> ó 5.81 (ethanol)
<i>Melting Point/freezing point</i> – -114°C (ethanol)	<i>Vapour density (air=1)</i> – 1.59 (ethanol)
<i>Boiling point</i> – 78°C (ethanol)	<i>Relative density</i> – 0.85 - 0.87 @20 °C
<i>Flash point</i> – 17°C	<i>Solubility</i> – dispersible in water
<i>Evaporation rate</i> – 3.4 (ethanol)	<i>Partition coefficient</i> – 0.32 (ethanol)
<i>Flammability</i> – highly flammable	<i>Auto ignition temperature</i> – 365°C (ethanol)
<i>Decomposition temperature</i> – not available	<i>Oxidising properties</i> – not available
<i>Viscosity</i> – 1.52 (ethanol)	<i>Explosive properties</i> – not available

### 9.2. Other information

Not available

## 10. Stability and reactivity

### 10.1. Reactivity

Stable

### 10.2. Chemical stability

Stable

### 10.3. Possibility of hazardous reactions

Possible reactions with nitric acid, sulphuric acid and oxidising agents.

### 10.4. Conditions to avoid

Avoid high temperature, static discharge and ignition sources.

### 10.5. Incompatible materials

Acids, oxidising agents.

### 10.6. Hazardous decomposition products

None known

## 11. Toxicological information

### 11.1. Information on toxicological effects

*Acute toxicity* ó LD50 (oral rat) 6200 ó 17800mg/kg ó ethanol  
LD50 (oral rat) 795mg/kg ó benzalkonium chloride

*Irritation* – May irritate eyes and skin

*Corrosivity* – data not available

*Sensitization* – some perfumes may cause sensitisation by skin contact

*Repeated dose toxicity* – data not available

*Carcinogenicity* – data not available

*Mutagenicity* – data not available

*Reproductive toxicity* – data not available



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**12. Ecological information**

**12.1. Toxicity**

LC50 6 1 - 10 mg/l 96h (fish), EC50 - <1mg/l 48h (daphnia) for benzalkonium chloride

**12.2. Persistence and degradability**

Data not available.

**12.3. Bioaccumulative potential**

Data not available.

**12.4. Mobility in soil**

Data not available.

**12.5. Results of PBT and vPvB assessment**

Data not available

**12.6. Other adverse effects**

N/A

**13. Disposal considerations**

**13.1. Waste treatment methods**

Dispose of waste and residues in accordance with local authority requirements. This material and its container must be disposed as hazardous waste.

**14. Transport information**

**14.1. UN number**

1170

**14.2. UN proper shipping name**

Ethanol Solution (Ethyl Alcohol Solution)

**14.3. Transport hazard class (es)**

3

**14.4. Packing group**

II

**14.5. Environmental hazards**

Not a marine pollutant.

**14.6. Special precautions for user**

N/A

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

N/A



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**15. Regulatory information**

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

Not regulated by specific legislation.

**15.2. Chemical Safety Assessment**

Not available

**16. Other information**

**16.1. Reason for change**

Updated to new format and included classification of ingredients to CLP.

**16.2. Source of information**

Ingredient safety data sheets

**16.3 Risk phrases and hazard statements from section 3**

R11 Highly flammable

R21/22 Harmful in contact with skin and if swallowed

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed

R34 Cause burns

R36 Irritating to eyes

R38 Irritating to skin

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed

R43 May cause sensitisation by skin contact

R50 Very toxic to aquatic organisms.

R51/53 Toxic to aquatic organisms, may cause long term effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long term effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

H225 Highly flammable liquid and vapour

H301 Toxic if swallowed

H302 Harmful if swallowed

H311 Toxic in contact with skin

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H331 Toxic if inhaled

H370 Causes damage to organs

H400 Very toxic to aquatic life