



## SAFETY DATA SHEET

### Surface Concentrate Citrus Fragrance

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

##### 1.1. Product identifier

**Product name** Surface Concentrate Citrus Fragrance

**Product number** 777002

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

**Identified uses** Concentrated disinfectant.

**Uses advised against** No specific uses advised against are identified.

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

**Supplier** The MazWell Group Ltd.  
Units 11/14-15 Ardglen Industrial Estate,  
Whitchurch, Hampshire,  
RG28 7BB, United Kingdom  
+44 (0)1256-893883  
+44 (0)1256-893868  
enquiries@themazwellgroup.com

##### 1.4. Emergency telephone number

**Emergency telephone** +44 (0)1256 893883 (Mon- Fri 9:00 am - 4:30 pm)

#### SECTION 2: Hazards identification

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

###### Classification (EC 1272/2008)

**Physical hazards** Not Classified

**Health hazards** Acute Tox. 3 - H331 Skin Corr. 1C - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Carc. 2 - H351 STOT RE 2 - H373

**Environmental hazards** Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

##### 2.2. Label elements

###### Hazard pictograms



**Signal word**

**Danger**

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<b>Hazard statements</b>	<p>H314 Causes severe skin burns and eye damage.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H331 Toxic if inhaled.</p> <p>H351 Suspected of causing cancer.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p>
<b>Precautionary statements</b>	<p>P201 Obtain special instructions before use.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	<p>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, Polyhexamethylene biguanide hydrochloride, Didecyldimethylammonium chloride, Alcohols, C9-11, ethoxylated, Tetrasodium ethylene diamine tetraacetate, (R)-p-mentha-1,8-diene</p>
<b>Supplementary precautionary statements</b>	<p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P311 Call a POISON CENTER/ doctor.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p>

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## Surface Concentrate Citrus Fragrance

<b>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</b>	<b>5 - &lt;10%</b>
CAS number: 68424-85-1                      EC number: 270-325-2 M factor (Acute) = 10                      M factor (Chronic) = 1	
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1C - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
<b>Polyhexamethylene biguanide hydrochloride</b>	<b>5 - &lt;10%</b>
CAS number: 27083-27-8                      EC number: 608-042-7 M factor (Acute) = 10                      M factor (Chronic) = 10	
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 2 - H330 Eye Dam. 1 - H318 Skin Sens. 1B - H317 Carc. 2 - H351 STOT RE 1 - H372 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
<b>Didecyldimethylammonium chloride</b>	<b>3 - &lt;5%</b>
CAS number: 7173-51-5                      EC number: 230-525-2 M factor (Acute) = 10	
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	
<b>Tetrasodium ethylene diamine tetraacetate</b>	<b>1 - &lt;2.5%</b>
CAS number: 64-02-8                      EC number: 200-573-9	
<b>Classification</b> Acute Tox. 4 - H302 Eye Dam. 1 - H318	

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<b>Alcohols, C9-11, ethoxylated</b>	<b>1 - &lt;2.5%</b>
CAS number: 68439-46-3	
<b>Classification</b>	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	
<b>(R)-p-mentha-1,8-diene</b>	<b>0.025 - &lt;0.25%</b>
CAS number: 5989-27-5	
EC number: 227-813-5	
M factor (Acute) = 1	
M factor (Chronic) = 1	
<b>Classification</b>	
Flam. Liq. 3 - H226	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
Asp. Tox. 1 - H304	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	
<b>Diphenyl ether</b>	<b>&lt;0.025%</b>
CAS number: 101-84-8	
EC number: 202-981-2	
<b>Classification</b>	
Aquatic Chronic 2 - H411	
<b>Turpentine, oil</b>	<b>&lt;0.025%</b>
CAS number: 8006-64-2	
EC number: 232-350-7	
<b>Classification</b>	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Asp. Tox. 1 - H304	
Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.  
Chemical burns must be treated by a physician.

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<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Skin contact</b>	It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Chemical burns must be treated by a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Severe irritation of nose and throat. Symptoms following overexposure may include the following: Corrosive to the respiratory tract.
<b>Ingestion</b>	May cause sensitisation or allergic reactions in sensitive individuals. May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
<b>Skin contact</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.
<b>Eye contact</b>	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

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

<b>Notes for the doctor</b>	Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.
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## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

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<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Severe corrosive hazard. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.
<b>5.3. Advice for firefighters</b>	
<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.
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#### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid discharge into drains and the aquatic environment.
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#### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Do not touch or walk into spilled material. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Do not empty into drains. Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. For waste disposal, see Section 13. Wash thoroughly after dealing with a spillage.
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#### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

## Surface Concentrate Citrus Fragrance

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. This product is corrosive. Immediate first aid is imperative. Suspected of causing cancer. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

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

**Storage precautions** Store away from incompatible materials (see Section 10). Store locked up. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Corrosive storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Diphenyl ether

Long-term exposure limit (8-hour TWA): WEL 1 ppm 7.1 mg/m<sup>3</sup> vapour

##### Turpentine, oil

Long-term exposure limit (8-hour TWA): WEL 100 ppm 566 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 150 ppm 850 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit.

**Ingredient comments** No exposure limits known for ingredient(s).

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
<b>Other skin and body protection</b>	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
<b>Hygiene measures</b>	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Warn cleaning personnel of any hazardous properties of the product.
<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Clear liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Citrus.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 6.5 - 7.5
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	100°C
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Bulk density</b>	1 g/mL
<b>Solubility(ies)</b>	Not known.
<b>Partition coefficient</b>	Not available.



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<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	<50 cPs @ 25°C
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Refractive index</b>	10 - 14
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	See the other subsections of this section for further details.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time. Avoid freezing.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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<b>ATE oral (mg/kg)</b>	2,257.7
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#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Acute Tox. 3 - H331 Toxic if inhaled.
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<b>ATE inhalation (gases ppm)</b>	1,666.67
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<b>ATE inhalation (vapours mg/l)</b>	8.33
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<b>ATE inhalation (dusts/mists mg/l)</b>	0.83
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#### Skin corrosion/irritation

<b>Animal data</b>	Skin Corr. 1B - H314 Causes severe burns.
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## Surface Concentrate Citrus Fragrance

### Serious eye damage/irritation

**Serious eye damage/irritation** Eye Dam. 1 - H318 Corrosive to skin. Corrosivity to eyes is assumed.

### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

### Skin sensitisation

**Skin sensitisation** May cause skin sensitisation or allergic reactions in sensitive individuals.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

### Carcinogenicity

**Carcinogenicity** Suspected of causing cancer.

### IARC carcinogenicity

Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.

### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

### General information

May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

### Inhalation

Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.

### Ingestion

May cause sensitisation or allergic reactions in sensitive individuals. May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.

### Skin contact

May cause skin sensitisation or allergic reactions in sensitive individuals. Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.

### Eye contact

Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

### Route of exposure

Ingestion Inhalation Skin and/or eye contact

### Target organs

No specific target organs known.

### Medical considerations

Skin disorders and allergies.

### Toxicological information on ingredients.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

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### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 344.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Supplier's information. Harmful if swallowed.

**ATE oral (mg/kg)** 344.0

### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 3,340.0

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met. Supplier's information.

**ATE dermal (mg/kg)** 3,340.0

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

### Skin corrosion/irritation

**Animal data** Dose: 24, hours, Rabbit Corrosive. Based on available data the classification criteria are not met. Supplier's information.

### Serious eye damage/irritation

**Serious eye damage/irritation** Corrosive to skin. Corrosivity to eyes is assumed. Supplier's information.

### Skin sensitisation

**Skin sensitisation** Buehler test - Guinea pig: Not sensitising. Supplier's information.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Chromosome aberration: Negative. Based on available data the classification criteria are not met. Supplier's information.

**Genotoxicity - in vivo** Ames test: Negative. Based on available data the classification criteria are not met. Supplier's information.

### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

## Surface Concentrate Citrus Fragrance

### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

### Polyhexamethylene biguanide hydrochloride

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 1,049.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Harmful if swallowed.

**ATE oral (mg/kg)** 1,049.0

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> >5000 mg/kg, Dermal, Rat

#### Acute toxicity - inhalation

**ATE inhalation (gases ppm)** 100.0

**ATE inhalation (vapours mg/l)** 0.5

**ATE inhalation (dusts/mists mg/l)** 0.05

#### Skin corrosion/irritation

**Animal data** Dose: 0.5g, 1 hour, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Dose: 0.1 mL, 1 hour, Rabbit Cornea score: 2 Iris score: 1 Conjunctivae score: 2 Chemosis score: 3 Causes serious eye damage.

#### Skin sensitisation

**Skin sensitisation** Buehler test - Guinea pig: Sensitising.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation: Negative.

**Genotoxicity - in vivo** DNA damage and/or repair: Negative.

#### Carcinogenicity

**Carcinogenicity** Suspected of causing cancer.

### Didcyldimethylammonium chloride

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 329.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Harmful if swallowed.

**ATE oral (mg/kg)** 329.0

## Surface Concentrate Citrus Fragrance

### Skin corrosion/irritation

**Animal data** Dose: 0.5 mL, 1 hour, Rabbit Erythema/eschar score: Severe erythema (beef redness) to eschar formation preventing grading of erythema (4). Oedema score: Severe oedema - raised more than 1 mm and extending beyond area of exposure (4). Corrosive.

### Serious eye damage/irritation

**Serious eye damage/irritation** Corrosive to skin. Corrosivity to eyes is assumed.

### Skin sensitisation

**Skin sensitisation** Buehler test - Guinea pig: Not sensitising.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation: Negative.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Toxicity** Aquatic Acute 1 - H400 Very toxic to aquatic life. Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

### Ecological information on ingredients.

#### Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

**Toxicity** Aquatic Acute 1 - H400 Very toxic to aquatic life.

**Acute aquatic toxicity**

**LE(C)<sub>50</sub>** 0.01 < L(E)C<sub>50</sub> ≤ 0.1

**M factor (Acute)** 10

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0.93 mg/l, Oncorhynchus mykiss (Rainbow trout)  
LC<sub>50</sub>, 96 hours: 0.28 mg/l, Pimephales promelas (Fat-head Minnow)  
LC<sub>50</sub>, 96 hours: 0.515 mg/l, Lepomis macrochirus (Bluegill)  
Supplier's information.

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 0.016 mg/l, Daphnia magna  
Supplier's information.

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 0.049 mg/l, Pseudokirchneriella subcapitata  
Supplier's information.

**Acute toxicity - terrestrial** LC<sub>50</sub>, 14 days: 7070 mg/kg, Eisenia Fetida (Earthworm)  
Supplier's information.

**Acute toxicity - microorganisms** EC<sub>50</sub>, 3 hours: 7.75 mg/l, Activated sludge  
EC<sub>100</sub>, 96 hours: ~16 mg/l, Pseudomonas putida  
Supplier's information.

**Chronic aquatic toxicity**

**M factor (Chronic)** 1

**Chronic toxicity - fish early life stage** NOEC, 34 days: 0.032 mg/l, Pimephales promelas (Fat-head Minnow)  
Supplier's information.

## Surface Concentrate Citrus Fragrance

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 0.0042 mg/l, Daphnia magna  
NOEC, 28 days: 520 mg/l, Chironomus sp.

### Polyhexamethylene biguanide hydrochloride

#### Acute aquatic toxicity

**M factor (Acute)** 10

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0.026 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 90 µg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 15 µg/l, Selenastrum capricornutum

#### Chronic aquatic toxicity

**M factor (Chronic)** 10

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 8.4 µg/l, Daphnia magna

### Didecyldimethylammonium chloride

#### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.01 < L(E)C<sub>50</sub> ≤ 0.1

**M factor (Acute)** 10

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0.49 mg/l, Brachydanio rerio (Zebra Fish)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 0.029 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 0.062 mg/l, Pseudokirchneriella subcapitata

#### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 0.021 mg/l, Daphnia magna

## 12.2. Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

### Ecological information on ingredients.

#### Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

**Persistence and degradability** The product is readily biodegradable.

**Biodegradation** - Degradation (>99%): 7 days  
Supplier's information.

### Polyhexamethylene biguanide hydrochloride

**Persistence and degradability** Not readily biodegradable.

## Surface Concentrate Citrus Fragrance

<b>Stability (hydrolysis)</b>	pH4, pH7, pH9 - Degradation < 10%: 5 days @ 50°C
<b>Biodegradation</b>	Water - Degradation 3.8%: 99 days

### Didecyldimethylammonium chloride

<b>Persistence and degradability</b>	The product is readily biodegradable.
<b>Stability (hydrolysis)</b>	pH4, pH7, pH9 - Half-life : >1 year @ 20°C
<b>Biodegradation</b>	Water - Degradation 69%: 28 days

### 12.3. Bioaccumulative potential

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
<b>Partition coefficient</b>	Not available.

### Ecological information on ingredients.

#### Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
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#### Polyhexamethylene biguanide hydrochloride

<b>Partition coefficient</b>	log Pow: -2.3
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#### Didecyldimethylammonium chloride

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
<b>Partition coefficient</b>	log Pow: 2.59

### 12.4. Mobility in soil

<b>Mobility</b>	No data available.
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### Ecological information on ingredients.

#### Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

<b>Mobility</b>	The product is partly soluble in water and may spread in the aquatic environment.
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#### Didecyldimethylammonium chloride

<b>Mobility</b>	The product is soluble in water.
<b>Surface tension</b>	25.82 mN/m @ 20°C

### 12.5. Results of PBT and vPvB assessment

<b>Results of PBT and vPvB assessment</b>	This product does not contain any substances classified as PBT or vPvB.
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### Ecological information on ingredients.

#### Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

<b>Results of PBT and vPvB assessment</b>	This substance is not classified as PBT or vPvB according to current EU criteria.
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## Surface Concentrate Citrus Fragrance

### Polyhexamethylene biguanide hydrochloride

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### Didecyldimethylammonium chloride

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

#### 12.6. Other adverse effects

**Other adverse effects** None known.

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

**General information** Reuse or recycle products wherever possible. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

### **SECTION 14: Transport information**

#### 14.1. UN number

<b>UN No. (ADR/RID)</b>	2922
<b>UN No. (IMDG)</b>	2922
<b>UN No. (ICAO)</b>	2922
<b>UN No. (ADN)</b>	2922

#### 14.2. UN proper shipping name

<b>Proper shipping name (ADR/RID)</b>	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride)
<b>Proper shipping name (IMDG)</b>	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, d-Limonene)
<b>Proper shipping name (ICAO)</b>	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride)
<b>Proper shipping name (ADN)</b>	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Didecyldimethylammonium chloride, Polyhexamethylene biguanide hydrochloride)

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

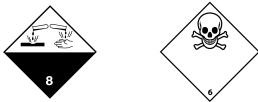
<b>ADR/RID class</b>	8
<b>ADR/RID subsidiary risk</b>	6.1
<b>ADR/RID classification code</b>	CT1
<b>ADR/RID label</b>	8



## Surface Concentrate Citrus Fragrance

IMDG class	8
IMDG subsidiary risk	6.1
ICAO class/division	8
ICAO subsidiary risk	6.1
ADN class	8
ADN subsidiary risk	6.1

### Transport labels



### 14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	86
Tunnel restriction code	(E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
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## Surface Concentrate Citrus Fragrance

**EU legislation**

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) (as amended).  
 Commission Regulation (EU) No 2015/830 of 28 May 2015.  
 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 (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

**Abbreviations and acronyms used in the safety data sheet**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
 IATA: International Air Transport Association.  
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.  
 IMDG: International Maritime Dangerous Goods.  
 CAS: Chemical Abstracts Service.  
 ATE: Acute Toxicity Estimate.  
 LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.  
 LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).  
 EC<sub>50</sub>: 50% of maximal Effective Concentration.  
 PBT: Persistent, Bioaccumulative and Toxic substance.  
 vPvB: Very Persistent and Very Bioaccumulative.

**Classification abbreviations and acronyms**

Acute Tox. = Acute toxicity  
 Carc. = Carcinogenicity  
 Eye Dam. = Serious eye damage  
 Skin Corr. = Skin corrosion  
 Skin Sens. = Skin sensitisation  
 STOT RE = Specific target organ toxicity-repeated exposure  
 Aquatic Acute = Hazardous to the aquatic environment (acute)  
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

**Classification procedures according to Regulation (EC) 1272/2008**

Acute Tox. 3 - H331: Eye Dam. 1 - H318: Skin Corr. 1B - H314: STOT RE 2 - H373: Skin Sens. 1 - H317: Carc. 2 - H351: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: : Calculation method.

**Training advice**

Only trained personnel should use this material.

**Revision comments**

Revised formulation.

**Revision date**

17/04/2018

**Revision**

4

**Supersedes date**

06/03/2018

**SDS number**

6233

## Surface Concentrate Citrus Fragrance

### Hazard statements in full

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H351 Suspected of causing cancer.  
H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.