SAFETY DATA SHEET
Chemspec Formula 429

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

1.1. Product identifier
Product name
Chemspec Formula 429

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses
Ready to use sanitising liquid

1.3. Details of the supplier of the safety data sheet
Supplier
Byotrol plc
Building 303 (Ashton),
Thornton Science Park,
Pool Lane, Ince, Chester,
CH2 4NU
info@byotrol.com
Tel: +44 (0) 1925 742 000
Fax: +44 (0) 1925 363 099

1.4. Emergency telephone number
Emergency telephone
+44 (0) 1925 742 000
(Available only within office hours 9am - 5pm)

National emergency telephone number
National Poisons Information Service (24-hour service)
Tel: +44 (0) 844 892 0111 (UK only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards
Not Classified
Health hazards
Not Classified
Environmental hazards
Aquatic Chronic 3 - H412

2.2. Label elements
Hazard statements
H412 Harmful to aquatic life with long lasting effects.
Precautionary statements
P273 Avoid release to the environment.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards
This product does not contain any substances classified as PBT or vPvB.
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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Concentration</th>
<th>CAS number</th>
<th>EC number</th>
<th>M factor (Acute)</th>
<th>M factor (Chronic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didecyldimethylammonium chloride (DDAC)</td>
<td>&lt;1%</td>
<td>7173-51-5</td>
<td>230-525-2</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))</td>
<td>&lt;1%</td>
<td>68424-85-1</td>
<td>270-325-2</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Polyhexamethylene biguanide hydrochloride</td>
<td>&lt;1%</td>
<td>27083-27-8</td>
<td></td>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>

### Classification

- **Didecyldimethylammonium chloride (DDAC)**
  - Acute Tox. 3 - H301
  - Acute Tox. 4 - H312
  - Skin Corr. 1B - H314
  - Aquatic Acute 1 - H400
  - Aquatic Chronic 1 - H410

- **Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))**
  - Acute Tox. 4 - H302
  - Skin Corr. 1B - H314
  - Aquatic Acute 1 - H400
  - Aquatic Chronic 1 - H410

- **Polyhexamethylene biguanide hydrochloride**
  - 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

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation**

Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
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Ingestion
Do not induce vomiting. Get medical attention if symptoms are severe or persist. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person.

Skin contact
Skin irritation should not occur when used as recommended. Wash with plenty of water.

Eye contact
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

General information
The product is considered to be a low hazard under normal conditions of use.

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

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media
None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards
None known.

Hazardous combustion products
Toxic gases and fumes may be released in a fire.

5.3. Advice for firefighters

Protective actions during firefighting
Use fire-extinguishing media suitable for the surrounding fire. Fight fire with normal precautions from a reasonable distance. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
In case of fire: Wear self-contained breathing apparatus. Wear protective clothing, gloves, eye and face protection. Keep unnecessary and unprotected personnel away from the spillage. Eliminate all sources of ignition. Ventilate closed spaces before entering them.

For emergency responders
Wear self-contained breathing apparatus. Wear protective clothing, gloves, eye and face protection. Do not allow uncontrolled discharge of product into the environment. Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions
Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Contain spillage with sand, earth or other suitable non-combustible material. Contain and dispose of waste according to local regulations.

6.4. Reference to other sections
Chemspec Formula 429

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions Use only non-sparking tools. Avoid contact with eyes.
Advice on general occupational hygiene Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep containers upright. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight. Avoid contact with oxidising agents. Store at temperatures not exceeding 35°C.
Storage class Miscellaneous hazardous material 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 This product does not contain any substances with occupational exposure limit values.

8.2. Exposure controls
Appropriate engineering controls Wash hands at the end of each work shift and before eating, smoking and using the toilet.
Eye/face protection Eye protection not required.
Hand protection Hand protection not required.
Respiratory protection Respiratory protection not required.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties
Appearance Clear liquid.
Colour Colourless to pale yellow.
Odour Characteristic.
Odour threshold Not determined.
pH pH (concentrated solution): 6.00 - 8.00
Melting point Not determined.
Initial boiling point and range 100 - 101°C
Flash point Not determined.
Evaporation rate Not determined.
Evaporation factor Not determined.
Flammability (solid, gas) Not relevant.
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Other flammability</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.99-1.01 @ 20°C</td>
</tr>
<tr>
<td>Bulk density</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td>Explosive under the influence of a flame</td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.</td>
</tr>
<tr>
<td>Comments</td>
<td>Information given is applicable to the product as supplied.</td>
</tr>
</tbody>
</table>

**9.2. Other information**

Other information: None.

### SECTION 10: Stability and reactivity

**10.1. Reactivity**

Reactivity: Stable at normal ambient temperatures and when used as recommended.

**10.2. Chemical stability**

Stability: Stable at normal ambient temperatures and when used as recommended.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions: Stable at normal ambient temperatures and when used as recommended.

**10.4. Conditions to avoid**

Conditions to avoid: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**10.5. Incompatible materials**


**10.6. Hazardous decomposition products**

Hazardous decomposition products: None known.

### SECTION 11: Toxicological information

**11.1. Information on toxicological effects**

...
## Toxicological effects

This product is considered non-toxic to humans.

### Skin corrosion/irritation

Not classified.

### Serious eye damage/irritation

Not classified.

### Respiratory sensitisation

Not classified.

### Skin sensitisation

Not classified.

### Germ cell mutagenicity

Not classified.

### Reproductive toxicity

- Reproductive toxicity - fertility
  - Not classified.
- Reproductive toxicity - development
  - Not classified.

### Specific target organ toxicity - single exposure

STOT - single exposure
- Not classified.

### Specific target organ toxicity - repeated exposure

STOT - repeated exposure
- Not classified.

### Aspiration hazard

Not classified.

### SECTION 12: Ecological Information

#### 12.1. Toxicity

**Toxicity**

When used as instructed, the product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

#### 12.2. Persistence and degradability

**Persistence and degradability**

Not determined.

#### 12.3. Bioaccumulative potential

**Partition coefficient**

Not determined.

#### 12.4. Mobility in soil

**Mobility**

Not determined.

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

**Results of PBT and vPvB assessment**

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

#### 12.6. Other adverse effects

**Other adverse effects**

Not determined.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information
The generation of waste should be minimised or avoided wherever possible.

Disposal methods
Dispose of waste product or used containers in accordance with local regulations. Do not discharge into drains or watercourses or onto the ground. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

SECTION 14: Transport information

General
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
No transport warning sign required.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
Not applicable.

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

EU legislation

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 19/07/2016
Revision 1
SDS number 5024
Chemspec Formula 429

Hazard statements in full

H290 May be corrosive to metals.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H351 Suspected of causing cancer.
H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful 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.