

# Northfork GECA Bathroom Cleaner

ACCO Brands Australia Pty Ltd

Version No: 2.8

Safety Data Sheet according to WHS and ADG requirements

Issue Date: 16/04/2021  
S.GHS.AUS.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

|                               |                                 |
|-------------------------------|---------------------------------|
| Product name                  | Northfork GECA Bathroom Cleaner |
| Synonyms                      | Not Available                   |
| Other means of identification | 5L - 638060700 500mL- 632134000 |

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

|                          |                               |
|--------------------------|-------------------------------|
| Relevant identified uses | General cleaning of bathrooms |
|--------------------------|-------------------------------|

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

|                         |  |
|-------------------------|--|
| Registered company name | ACCO Brands Australia Pty Ltd                        |
| Address                 | 17-19 Waterloo Street, Queanbeyan NSW 2620 Australia |
| Telephone               | +61-2-61328200                                       |
| Fax                     | +61-2-62844556                                       |
| Website                 | www.accobrands.com.au                                |
| Email                   | sds.anz@acco.com                                     |

### Emergency telephone number

|                                   |                          |
|-----------------------------------|--------------------------|
| Association / Organisation        | Poisons Information Line |
| Emergency telephone numbers       | 13 11 26                 |
| Other emergency telephone numbers | Not Available            |

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

|                    |  |
|--------------------|--|
| Poisons Schedule   | Not Applicable   |
| Classification [1] | Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A   |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |

### Label elements

|                     |   |
|---------------------|---|
| Hazard pictogram(s) |  |
| SIGNAL WORD         | <b>WARNING</b>  |

### Hazard statement(s)

|      |                                |
|------|--------------------------------|
| H315 | Causes skin irritation.        |
| H319 | Causes serious eye irritation. |

### Precautionary statement(s) Prevention

|      |  |
|------|--|
| P101 | If medical advice is needed, have product container or label at hand.      |
| P102 | Keep out of reach of children.   |
| P103 | Read label before use.   |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

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**Precautionary statement(s) Response**

|                |  |
|----------------|--|
| P362           | Take off contaminated clothing and wash before reuse.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P302+P352      | IF ON SKIN: Wash with plenty of soap and water.  |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No     | %[weight] | Name  |
|------------|-----------|---|
| 77-92-9    | <10       | <u>citric acid</u>                              |
| 7173-51-5  | <10       | <u>didecyldimethylammonium chloride</u>         |
| Not Avail* | <10       | <u>Polyoxyethylene C12-14 acid methyl ester</u> |
| 61789-40-0 | <10       | <u>cocamidopropylbetaine</u>                    |

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

|                     |   |
|---------------------|---|
| <b>Eye Contact</b>  | <ul style="list-style-type: none"> <li>► If in eyes, hold eyelids apart and flush the eye continuously with running water.</li> <li>► Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>► Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>► Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>► Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| <b>Skin Contact</b> | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>► Immediately remove all contaminated clothing, including footwear.</li> <li>► Flush skin and hair with running water (and soap if available).</li> <li>► Seek medical attention in event of irritation.</li> </ul>   |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>► If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>► Other measures are usually unnecessary.</li> </ul>   |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>► Immediately give a glass of water.</li> <li>► First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul> <p>If poisoning occurs, contact a doctor or Poisons Information Centre.</p>   |

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

Treat symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

**Special hazards arising from the substrate or mixture**

|                             |             |
|-----------------------------|-------------|
| <b>Fire Incompatibility</b> | None known. |
|-----------------------------|-------------|

**Advice for firefighters**

|                              |   |
|------------------------------|---|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>► Alert Fire Brigade and tell them location and nature of hazard.</li> <li>► Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>► Prevent, by any means available, spillage from entering drains or water courses.</li> <li>► Use fire fighting procedures suitable for surrounding area.</li> <li>► <b>DO NOT</b> approach containers suspected to be hot.</li> <li>► Cool fire exposed containers with water spray from a protected location.</li> <li>► If safe to do so, remove containers from path of fire.</li> <li>► Equipment should be thoroughly decontaminated after use.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>► Non combustible.</li> <li>► Not considered a significant fire risk, however containers may burn.</li> </ul> <p>May emit corrosive fumes.</p>   |
| <b>HAZCHEM</b>               | Not Applicable  |

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**SECTION 6 ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

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

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>   |
| <b>Major Spills</b> | <p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Neutralise/decontaminate residue (see Section 13 for specific agent).</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE****Precautions for safe handling**

|                          |   |
|--------------------------|---|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ <b>DO NOT allow material to contact humans, exposed food or food utensils.</b></li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Other information</b> |   |

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

|                                |   |
|--------------------------------|---|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul> |
| <b>Storage incompatibility</b> | None known  |

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****Control parameters****OCCUPATIONAL EXPOSURE LIMITS (OEL)****INGREDIENT DATA**

Not Available

**EMERGENCY LIMITS**

| Ingredient                       | Material name                    | TEEL-1        | TEEL-2  | TEEL-3   |
|----------------------------------|----------------------------------|---------------|---------|----------|
| didecyldimethylammonium chloride | Didecyldimethylammonium chloride | 0.82 mg/m3    | 9 mg/m3 | 17 mg/m3 |
| Ingredient                       | Original IDLH                    | Revised IDLH  |         |          |
| citric acid                      | Not Available                    | Not Available |         |          |
| didecyldimethylammonium chloride | Not Available                    | Not Available |         |          |

Continued...

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|  |               |               |
|--|---------------|---------------|
| Polyoxyethylene C12-14 acid methyl ester | Not Available | Not Available |
| cocamidopropylbetaine                    | Not Available | Not Available |

**Exposure controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

| Type of Contaminant:  | Air Speed:                   |
|---|------------------------------|
| solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s (50-100 f/min)  |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyor transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.)   |
| direct spray, spray painting in shallow booths, drum filling, conveyor loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s (200-500 f/min.)   |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).  | 2.5-10 m/s (500-2000 f/min.) |

Within each range the appropriate value depends on:

| Lower end of the range                                     | Upper end of the range           |
|--|----------------------------------|
| 1: Room air currents minimal or favourable to capture      | 1: Disturbing room air currents  |
| 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity |
| 3: Intermittent, low production.                           | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                  | 4: Small hood-local control only |

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

|                                |  |
|--------------------------------|--|
| <b>Personal protection</b>     |      |
| <b>Eye and face protection</b> | <ul style="list-style-type: none"> <li>► Safety glasses with side shields.</li> <li>► Chemical goggles.</li> <li>► Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. [AS/NZS 1336 or national equivalent]</li> </ul>  |
| <b>Skin protection</b>         | See Hand protection below  |
|                                | <ul style="list-style-type: none"> <li>► Wear chemical protective gloves, e.g. PVC.</li> <li>► Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>► The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>► Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p>   |
| <b>Hands/feet protection</b>   | <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>• frequency and duration of contact,</li> <li>• chemical resistance of glove material,</li> <li>• glove thickness and</li> <li>• dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> </ul> |

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|                         |  |
|-------------------------|--|
|                         | <ul style="list-style-type: none"> <li>Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>Contaminated gloves should be replaced.</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> |
| <b>Body protection</b>  | See Other protection below   |
| <b>Other protection</b> | <ul style="list-style-type: none"> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> <li>Eye wash unit.</li> </ul>  |
| <b>Thermal hazards</b>  | Not Available  |

**Recommended material(s)****GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:  
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| Material       | CPI |
|----------------|-----|
| BUTYL          | A   |
| NEOPRENE       | A   |
| VITON          | A   |
| NATURAL RUBBER | C   |
| PVA            | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

**Respiratory protection**

**Type A Filter of sufficient capacity (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)**

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES                      | A-AUS                | -                    | A-PAPR-AUS / Class 1   |
| up to 50 x ES                      | -                    | A-AUS / Class 1      | -                      |
| up to 100 x ES                     | -                    | A-2                  | A-PAPR-2 ^             |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

|   |                     |  |               |
|---|---------------------|--|---------------|
| <b>Appearance</b>                                   | A clear blue liquid |  |               |
| <b>Physical state</b>                               | Liquid              | <b>Relative density (Water = 1)</b>            | 1.00-1.05     |
| <b>Odour</b>  | Not Available       | <b>Partition coefficient n-octanol / water</b> | Not Available |
| <b>Odour threshold</b>                              | Not Available       | <b>Auto-ignition temperature (°C)</b>          | Not Available |
| <b>pH (as supplied)</b>                             | 4-6                 | <b>Decomposition temperature</b>               | Not Available |
| <b>Melting point / freezing point (°C)</b>          | Not Available       | <b>Viscosity (cSt)</b>                         | Not Available |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available       | <b>Molecular weight (g/mol)</b>                | Not Available |
| <b>Flash point (°C)</b>                             | Not Available       | <b>Taste</b>                                   | Not Available |
| <b>Evaporation rate</b>                             | Not Available       | <b>Explosive properties</b>                    | Not Available |
| <b>Flammability</b>                                 | Not Available       | <b>Oxidising properties</b>                    | Not Available |
| <b>Upper Explosive Limit (%)</b>                    | Not Available       | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available |
| <b>Lower Explosive Limit (%)</b>                    | Not Available       | <b>Volatile Component (%vol)</b>               | Not Available |
| <b>Vapour pressure (kPa)</b>                        | Not Available       | <b>Gas group</b>                               | Not Available |
| <b>Solubility in water (g/L)</b>                    | Miscible            | <b>pH as a solution (1%)</b>                   | Not Available |
| <b>Vapour density (Air = 1)</b>                     | Not Available       | <b>VOC g/L</b>                                 | Not Available |

Continued...

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**SECTION 10 STABILITY AND REACTIVITY**

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>► Unstable in the presence of incompatible materials.</li> <li>► Product is considered stable.</li> <li>► Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

**SECTION 11 TOXICOLOGICAL INFORMATION****Information on toxicological effects**

|   |  |   |
|---|--|---|
| <b>Inhaled</b>                                  | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product          |   |
| <b>Ingestion</b>                                | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.   |   |
| <b>Skin Contact</b>                             | <p>This material can cause inflammation of the skin on contact in some persons.<br/>           The material may accentuate any pre-existing dermatitis condition<br/>           Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> |   |
| <b>Eye</b>                                      | This material can cause eye irritation and damage in some persons.   |   |
| <b>Chronic</b>                                  | Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.  |   |
| <b>GECA Bathroom Cleaner</b>                    | <b>TOXICITY</b><br>Not Available   | <b>IRRITATION</b><br>Not Available  |
| <b>citric acid</b>                              | <b>TOXICITY</b><br>dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup><br><br>Oral (rat) LD50: 3000 mg/kg <sup>[2]</sup>   | <b>IRRITATION</b><br>Eye (rabbit): 0.75 mg/24h-SEVERE<br><br>Skin (rabbit): 500 mg/24h - mild |
| <b>didecyldimethylammonium chloride</b>         | <b>TOXICITY</b><br>Oral (rat) LD50: 84 mg/kg <sup>[2]</sup>  | <b>IRRITATION</b><br>Skin (rabbit): 500 mg SEVERE   |
| <b>Polyoxyethylene C12-14 acid methyl ester</b> | <b>TOXICITY</b><br>Not Available   | <b>IRRITATION</b><br>Not Available  |
| <b>cocamidopropylbetaine</b>                    | <b>TOXICITY</b><br>Oral (rat) LD50: 2700 mg/kg** <sup>[2]</sup>  | <b>IRRITATION</b><br>Eye: primary irritant *<br><br>Skin: primary irritant *                  |

**Legend:**

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

|   |   |
|---|---|
| <b>CITRIC ACID</b>                      | For citric acid (and its inorganic citrate salts)<br>Based on extensive animal testing data and on human experience, citric acid has low acute toxicity. Citric acid is not suspected of causing cancer, birth defects or reproductive toxicity. Further, it does not cause mutations. Also, the sensitizing potential is considered low. In contrast, irritation, particularly of the eyes but also the airways and the skin, is the main hazard presented by citric acid.   |
| <b>DIDECYLDIMETHYLAMMONIUM CHLORIDE</b> | There is no data that exists regarding the health effects of cationic didecyldimethylammonium (DADMA) salts, but they are expected to have similar properties to alkyltrimethylammonium (ATMA) salts, although they are generally less irritating than the corresponding ATMA salts.<br>Fatty Nitrogen-Derived Cationics (FND Cationics) have minimal to moderate acute toxicity but may be acutely lethal at very high doses. Repeated exposure also is associated with low toxicity. They are unlikely to cause mutation or affect reproduction, cause birth defects or development of the unborn.<br>For alkyltrimethylammonium chloride (ATMAC)<br>Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. In addition, certain surfactants will satisfy the criteria for classification as Corrosive with R34 in addition to the acute toxicity.<br>According to Centre Européen des Agents de Surface et de leurs Intermédiaires Organiques (CESIO), C8-18 alkyltrimethylammonium chloride (ATMAC) (i.e., lauryl, coco, soya, and tallow) are classified as Corrosive (C ) with the risk phrases R22 (Harmful if swallowed) and R34 (Causes burns). C16 ATMAC is classified as Harmful (Xn) with the risk phrases R22 (Harmful if swallowed), R38 (Irritating to skin), and R41 (Risk of serious damage to eyes). C20-22 ATMAC are classified as Irritant (Xi) with R36/38 (Irritating to eyes and skin).<br><br>Acute toxicity: ATMAC (the bromide) is poorly absorbed through the skin or the digestive tract. Acute oral toxicity of alkyltrimethylammonium salts is |

Continued...

## GECA Bathroom Cleaner

somewhat higher than the toxicity of anionic and nonionic surfactants. This may be due to the strongly irritating effect which cationic surfactants have on the mucous membrane of the gastrointestinal tract.

551ddac

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

Somnolence recorded.

The following information refers to contact allergens as a group and may not be specific to this product.

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

Possible cross-reactions to several fatty acid amidopropyl dimethylamines were observed in patients that were reported to have allergic contact dermatitis to a baby lotion that contained 0.3% oleamidopropyl dimethylamine.

Stearamidopropyl dimethylamine at 2% in hair conditioners was not a contact sensitizer when tested neat or diluted to 30%. However, irritation reactions were observed.

A 10-year retrospective study found that out of 46 patients with confirmed allergic eyelid dermatitis, 10.9% had relevant reactions to oleamidopropyl dimethylamine and 4.3% had relevant reactions to cocamidopropyl dimethylamine.

Several cases of allergic contact dermatitis were reported in patients from the Netherlands that had used a particular type of body lotion that contained oleamidopropyl dimethylamine.

In 12 patients tested with their personal cosmetics, containing the fatty acid amidopropyl dimethylamine cocamidopropyl betaine (CAPB), 9 had positive reactions to at least one dilution and 5 had irritant reactions. All except 3 patients, who were not tested, had 2 or 3+ reaction to the 3,3-dimethylaminopropylamine (DMAPA, the reactant used in producing fatty acid amidopropyl dimethylamines) at concentrations as low as 0.05%. The presence of DMAPA was investigated via thin-layer chromatography in the personal cosmetics of 4 of the patients that had positive reactions.

Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Amphoteric surfactants are easily absorbed in the gut and partly excreted unchanged in the faeces. It has not been shown to accumulate in the body. Concentrated betaines are expected to irritate the skin and eyes, but dilute solutions only irritate the eyes.

No evidence of delayed contact hypersensitivity was found in animal testing. Tests for mutation-causing potential have proved negative.

## COCAMIDOPROPYLBETAINE

\* [Van Waters and Rogers] \*\* [Canada Colors and Chemicals Ltd.] Toxicokinetics, metabolism and distribution. Absorption of the chemical across dermal and gastrointestinal membranes is possible based on the relatively low molecular weight of the chemical (500 Da) and given that it is a surfactant (EC, 2003). Acute toxicity: Acute oral toxicity studies in rats and mice indicated that the LD50 values of the chemical (at 30-35.61% concentration) ranged from 1800 mg/kg bw (male rats) up to 5000 mg/kg bw, with mortalities noted in most studies (CIR, 2010). Of note is an acute oral toxicity study conducted in Sprague-Dawley rats (5/sex) at a single dose of 1800 mg/kg bw (formulation containing 35.61% of the chemical), where no males but all five females died. Overall, the data suggests that mortality occurs following oral administration of the chemical and that it may be an acute oral toxicant. Therefore, based on these data the chemical may be harmful if swallowed. An acute dermal toxicity study in rats was conducted using 2000 mg/kg bw of a 31% formulation of the chemical (CIR, 2010). Irritation was observed, but there were no clinical signs of systemic toxicity or mortalities. The lack of effects in this study suggests that the chemical is likely to be of low acute dermal toxicity. Irritation: The chemical has a quaternary ammonium functional group, which is a structural alert for corrosion. Numerous skin irritation studies, conducted with formulations containing 7.5-30% of the chemical, indicated that the chemical has irritant properties. The studies were, in-general, conducted under occlusive conditions, with exposure times of up to 24 hours (7.5-10%). Based on the information available, the chemical is likely to be a skin irritant. Eye irritation studies with the chemical showed that corrosive and necrotic effects occurred at 30% whereas less severe effects were observed at lower concentrations of 2.3-10%. The chemical is classified with the risk phrase R36: Irritating to eyes, however, based on studies conducted on the chemical it may be a severe eye irritant. Sensitisation: The chemical has a quaternary ammonium functional group, which is a structural alert for sensitisation (Conflicting results have been obtained with the chemical in animal studies. Positive results were reported in an LLNA study (an EC3 value was not reported). In addition, positive results were obtained in two guinea pig maximisation studies conducted by a single laboratory, the first at 3% induction and 3% challenge, and the second at 0.15% induction and 0.015% challenge. However, there was no sensitisation in a guinea pig maximisation test when the chemical was tested at 6% induction and 1% challenge. In addition, no sensitisation was observed in another test in guinea pigs at 0.75% induction and 0.02% challenge. No evidence of sensitisation was reported in a HRIPT on a formulation containing the chemical at 0.6% concentration (a 10% dilution of a ~6% formulation) with 110 volunteers. In HRIPT studies on formulations containing the chemical, no evidence of sensitisation was reported at concentrations of 1.87% (88 subjects), 0.93% (93 subjects), 0.3% (100 subjects), 1.5-3.0% (141 subjects), 6.0% (210 subjects), 0.018% (27 subjects). However, positive results were observed in provocative studies conducted on formulations containing the chemical (at 0.3-1% concentration), conducted in subjects diagnosed with various forms of contact dermatitis, suggesting that the chemical may cause reactions in sensitive individuals. In one study authors note that sensitisation effects of the chemical (and related compounds) are most likely due to the impurities, including DMAPA and amidopropyl dimethylamines, however, they do not exclude the possibility of the causing the sensitisation. The potential for skin sensitisation.

## CITRIC ACID &amp; DIDECYLDIMETHYLAMMONIUM CHLORIDE

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.

## CITRIC ACID &amp; COCAMIDOPROPYLBETAINE

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

|                                   |                                     |                          |                                     |
|-----------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| Acute Toxicity                    | <input checked="" type="checkbox"/> | Carcinogenicity          | <input checked="" type="checkbox"/> |
| Skin Irritation/Corrosion         | <input checked="" type="checkbox"/> | Reproductivity           | <input checked="" type="checkbox"/> |
| Serious Eye Damage/Irritation     | <input checked="" type="checkbox"/> | STOT - Single Exposure   | <input checked="" type="checkbox"/> |
| Respiratory or Skin sensitisation | <input checked="" type="checkbox"/> | STOT - Repeated Exposure | <input checked="" type="checkbox"/> |
| Mutagenicity                      | <input checked="" type="checkbox"/> | Aspiration Hazard        | <input checked="" type="checkbox"/> |

Legend:  - Data available but does not fill the criteria for classification  
 - Data available to make classification  
 - Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

Continued...

## GECA Bathroom Cleaner

**Toxicity**

| GECA Bathroom Cleaner  | <table border="1"> <thead> <tr> <th>ENDPOINT</th><th>TEST DURATION (HR)</th><th>SPECIES</th><th>VALUE</th><th>SOURCE</th></tr> </thead> <tbody> <tr> <td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr> </tbody> </table>   |                    |                               |                |             | ENDPOINT              | TEST DURATION (HR) | SPECIES            | VALUE   | SOURCE | Not Applicable                           | Not Applicable | Not Applicable | Not Applicable | Not Applicable |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|--|---|--------------------|-------------------------------|----------------|-------------|-----------------------|--------------------|--------------------|---------|--------|--|----------------|----------------|----------------|----------------|------|------|-------------------------------|--------------|-----------|-----|------|-----------|-------------------------------|-----------|------|------|-----------|-------------------------------|-----------|---|------|-----|-----------|--------------|---|
| ENDPOINT   | TEST DURATION (HR)  | SPECIES            | VALUE                         | SOURCE         |             |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| Not Applicable   | Not Applicable  | Not Applicable     | Not Applicable                | Not Applicable |             |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| <table border="1"> <tbody> <tr> <td rowspan="5">citric acid</td><th>ENDPOINT</th><th>TEST DURATION (HR)</th><th>SPECIES</th><th>VALUE</th><th>SOURCE</th></tr> <tr> <td>LC50</td><td>96</td><td>Fish</td><td>9.23896mg/L</td><td>3</td></tr> <tr> <td>EC50</td><td>96</td><td>Algae or other aquatic plants</td><td>23.29809mg/L</td><td>3</td></tr> <tr> <td>EC0</td><td>72</td><td>Crustacea</td><td>&lt;80mg/L</td><td>1</td></tr> <tr> <td>NOEC</td><td>16</td><td>Crustacea</td><td>153mg/L</td><td>4</td></tr> </tbody> </table> |   |                    |                               |                | citric acid | ENDPOINT              | TEST DURATION (HR) | SPECIES            | VALUE   | SOURCE | LC50                                     | 96             | Fish           | 9.23896mg/L    | 3              | EC50 | 96   | Algae or other aquatic plants | 23.29809mg/L | 3         | EC0 | 72   | Crustacea | <80mg/L                       | 1         | NOEC | 16   | Crustacea | 153mg/L                       | 4         |   |      |     |           |              |   |
| citric acid  | ENDPOINT  | TEST DURATION (HR) | SPECIES                       | VALUE          |             | SOURCE                |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | LC50  | 96                 | Fish                          | 9.23896mg/L    |             | 3                     |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC50  | 96                 | Algae or other aquatic plants | 23.29809mg/L   |             | 3                     |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC0   | 72                 | Crustacea                     | <80mg/L        |             | 1                     |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | NOEC  | 16                 | Crustacea                     | 153mg/L        | 4           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| didecyldimethylammonium chloride   | <table border="1"> <tbody> <tr> <th>ENDPOINT</th><th>TEST DURATION (HR)</th><th>SPECIES</th><th>VALUE</th><th>SOURCE</th></tr> <tr> <td rowspan="5">didecyldimethylammonium chloride</td><td>LC50</td><td>96</td><td>Fish</td><td>0.00001mg/L</td><td>4</td></tr> <tr> <td>EC50</td><td>48</td><td>Crustacea</td><td>0.018mg/L</td><td>4</td></tr> <tr> <td>EC50</td><td>72</td><td>Algae or other aquatic plants</td><td>0.11mg/L</td><td>4</td></tr> <tr> <td>EC50</td><td>504</td><td>Crustacea</td><td>0.031mg/L</td><td>2</td></tr> <tr> <td>NOEC</td><td>96</td><td>Fish</td><td>&lt;0.00001mg/L</td><td>4</td></tr> </tbody> </table>  |                    |                               |                |             | ENDPOINT              | TEST DURATION (HR) | SPECIES            | VALUE   | SOURCE | didecyldimethylammonium chloride         | LC50           | 96             | Fish           | 0.00001mg/L    | 4    | EC50 | 48                            | Crustacea    | 0.018mg/L | 4   | EC50 | 72        | Algae or other aquatic plants | 0.11mg/L  | 4    | EC50 | 504       | Crustacea                     | 0.031mg/L | 2 | NOEC | 96  | Fish      | <0.00001mg/L | 4 |
| ENDPOINT   | TEST DURATION (HR)  | SPECIES            | VALUE                         | SOURCE         |             |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| didecyldimethylammonium chloride   | LC50  | 96                 | Fish                          | 0.00001mg/L    | 4           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC50  | 48                 | Crustacea                     | 0.018mg/L      | 4           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC50  | 72                 | Algae or other aquatic plants | 0.11mg/L       | 4           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC50  | 504                | Crustacea                     | 0.031mg/L      | 2           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | NOEC  | 96                 | Fish                          | <0.00001mg/L   | 4           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| Polyoxyethylene C12-14 acid methyl ester   | <table border="1"> <thead> <tr> <th>ENDPOINT</th><th>TEST DURATION (HR)</th><th>SPECIES</th><th>VALUE</th><th>SOURCE</th></tr> </thead> <tbody> <tr> <td rowspan="2">Polyoxyethylene C12-14 acid methyl ester</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td><td>Not Applicable</td></tr> </tbody> </table>   |                    |                               |                |             | ENDPOINT              | TEST DURATION (HR) | SPECIES            | VALUE   | SOURCE | Polyoxyethylene C12-14 acid methyl ester | Not Applicable | Not Applicable | Not Applicable | Not Applicable |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| ENDPOINT   | TEST DURATION (HR)  | SPECIES            | VALUE                         | SOURCE         |             |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
| Polyoxyethylene C12-14 acid methyl ester   | Not Applicable  | Not Applicable     | Not Applicable                | Not Applicable |             |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | <table border="1"> <tbody> <tr> <td rowspan="6">cocamidopropylbetaine</td><th>ENDPOINT</th><th>TEST DURATION (HR)</th><th>SPECIES</th><th>VALUE</th><th>SOURCE</th></tr> <tr> <td>LC50</td><td>96</td><td>Fish</td><td>=1mg/L</td><td>1</td></tr> <tr> <td>EC50</td><td>48</td><td>Crustacea</td><td>=6.5mg/L</td><td>1</td></tr> <tr> <td>EC50</td><td>96</td><td>Algae or other aquatic plants</td><td>=0.55mg/L</td><td>1</td></tr> <tr> <td>EC0</td><td>96</td><td>Algae or other aquatic plants</td><td>=0.09mg/L</td><td>1</td></tr> <tr> <td>NOEC</td><td>504</td><td>Crustacea</td><td>=0.9mg/L</td><td>1</td></tr> </tbody> </table> |                    |                               |                |             | cocamidopropylbetaine | ENDPOINT           | TEST DURATION (HR) | SPECIES | VALUE  | SOURCE                                   | LC50           | 96             | Fish           | =1mg/L         | 1    | EC50 | 48                            | Crustacea    | =6.5mg/L  | 1   | EC50 | 96        | Algae or other aquatic plants | =0.55mg/L | 1    | EC0  | 96        | Algae or other aquatic plants | =0.09mg/L | 1 | NOEC | 504 | Crustacea | =0.9mg/L     | 1 |
| cocamidopropylbetaine  | ENDPOINT  | TEST DURATION (HR) | SPECIES                       | VALUE          | SOURCE      |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | LC50  | 96                 | Fish                          | =1mg/L         | 1           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC50  | 48                 | Crustacea                     | =6.5mg/L       | 1           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC50  | 96                 | Algae or other aquatic plants | =0.55mg/L      | 1           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | EC0   | 96                 | Algae or other aquatic plants | =0.09mg/L      | 1           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |
|  | NOEC  | 504                | Crustacea                     | =0.9mg/L       | 1           |                       |                    |                    |         |        |  |                |                |                |                |      |      |                               |              |           |     |      |           |                               |           |      |      |           |                               |           |   |      |     |           |              |   |

**Legend:**

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

**Persistence and degradability**

| Ingredient  | Persistence: Water/Soil | Persistence: Air |
|-------------|-------------------------|------------------|
| citric acid | LOW                     | LOW              |

**Bioaccumulative potential**

| Ingredient  | Bioaccumulation      |
|-------------|----------------------|
| citric acid | LOW (LogKOW = -1.64) |

**Mobility in soil**

| Ingredient  | Mobility       |
|-------------|----------------|
| citric acid | LOW (KOC = 10) |

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods**

|                              |   |
|------------------------------|---|
| Product / Packaging disposal | <ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul> <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type.</p> |
|                              |   |

Continued...

## GECA Bathroom Cleaner

Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- **DO NOT allow wash water from cleaning or process equipment to enter drains.**
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

**SECTION 14 TRANSPORT INFORMATION****Labels Required**

|                  |                |
|------------------|----------------|
| Marine Pollutant | NO             |
| HAZCHEM          | Not Applicable |

**Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**SECTION 15 REGULATORY INFORMATION****Safety, health and environmental regulations / legislation specific for the substance or mixture****CITRIC ACID(77-92-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

**DIDECYLDIMETHYLAMMONIUM CHLORIDE(7173-51-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

**POLYOXYETHYLENE C12-14 ACID METHYL ESTER(NOT AVAIL\*) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

**COCAMIDOPROPYLBETAINE(61789-40-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Inventory of Chemical Substances (AICS)

| National Inventory            | Status   |
|-------------------------------|--|
| Australia - AICS              | Y  |
| Canada - DSL                  | Y  |
| Canada - NDSL                 | N (didecyldimethylammonium chloride; citric acid; cocamidopropylbetaine)   |
| China - IECSC                 | Y  |
| Europe - EINEC / ELINCS / NLP | Y  |
| Japan - ENCS                  | N (didecyldimethylammonium chloride; citric acid)  |
| Korea - KECI                  | Y  |
| New Zealand - NZIoC           | Y  |
| Philippines - PICCS           | Y  |
| USA - TSCA                    | Y  |
| <b>Legend:</b>                | <i>Y = All ingredients are on the inventory<br/>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)</i> |

**SECTION 16 OTHER INFORMATION****Other information****Ingredients with multiple cas numbers**

| Name                  | CAS No  |
|-----------------------|---|
| citric acid           | 77-92-9, 1192555-95-5, 12262-73-6, 136108-93-5, 245654-34-6, 43136-35-2, 623158-96-3, 856568-15-5, 878903-72-1, 890704-54-8, 896506-46-0, 906507-37-7 |
| cocamidopropylbetaine | 61789-40-0, 83138-08-3, 86438-79-1, 97862-59-4  |

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

Continued...

**GECA Bathroom Cleaner**

PC – TWA: Permissible Concentration-Time Weighted Average  
PC – STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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