

WD CLEANER DEODORISER BIO-ZYME 5L

Officemax

Chemwatch: 5331-06

Version No: 5.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Issue Date: 20/08/2021

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S.GHS.NZL.EN.E

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

Product Identifier

| | |
|-------------------------------|--|
| Product name | WD CLEANER DEODORISER BIO-ZYME 5L |
| Synonyms | 2702584, 3786161; BEST START KIT CLEANER BIO-ZYME SANITISER 5L |
| Chemical formula | Not Applicable |
| Other means of identification | Not Available |

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

| | |
|--------------------------|---|
| Relevant identified uses | Enzyme based deodoriser, cleaner and sanitiser. |
|--------------------------|---|

Details of the manufacturer or supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered company name | Officemax |
| Address | 30 Sir Woolf Fisher Drive East Tamaki Manukau New Zealand |
| Telephone | 0800 426 473 |
| Fax | 0800 226 473 |
| Website | www.officemax.co.nz |
| Email | enquiries@officemax.co.nz |

Emergency telephone number

| | |
|-----------------------------------|-------------------------------------|
| Association / Organisation | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone numbers | +64 800 700 112 |
| Other emergency telephone numbers | +61 3 9573 3188 |


Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture


Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.

Chemwatch Hazard Ratings

| | Min | Max | |
|--------------|-----|---|---|
| Flammability | 0 | | |
| Toxicity | 0 | | |
| Body Contact | 2 |  | 0 = Minimum 1 = Low 2 = Moderate 3 = High 4 = Extreme |
| Reactivity | 0 | | |
| Chronic | 0 | | |

| | |
|---|--|
| Classification [1] | Serious Eye Damage/Eye Irritation Category 2 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |
| Determined by Chemwatch using GHS/HSNO criteria | 6.4A |

Label elements

| | |
|---------------------|--|
| Hazard pictogram(s) |  |
|---------------------|--|

| | |
|-------------|----------------|
| Signal word | Warning |
|-------------|----------------|

Hazard statement(s)

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

Precautionary statement(s) Prevention

| | |
|------|--|
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P264 | Wash all exposed external body areas thoroughly after handling. |

Precautionary statement(s) Response

| | |
|----------------|--|
| 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. |

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 |
|---------------|-----------|--|
| 68439-46-3 | 5 | <u>alcohols C9-11 ethoxylated</u> |
| 79-33-4 | 0-5 | <u>lactic acid</u> |
| 77-92-9 | 0-5 | <u>citric acid</u> |
| 57-13-6 | 0-5 | <u>urea</u> |
| Not Available | 0-1 | lemon fragrance |
| Not Available | balance | Ingredients determined not to be hazardous |
| 7732-18-5 | | <u>water</u> |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available

SECTION 4 First aid measures

Description of first aid measures

| | |
|---------------------|--|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Wash out immediately with fresh running water. ▶ 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. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. |
| Inhalation | <ul style="list-style-type: none"> ▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary. |
| Ingestion | <ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. |

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

| | |
|-----------------------------|--|
| Fire Incompatibility | ▸ Avoid reaction with oxidising agents |
|-----------------------------|--|

Advice for firefighters

| | |
|------------------------------|---|
| Fire Fighting | <ul style="list-style-type: none">▸ Alert Fire Brigade and tell them location and nature of hazard.▸ Wear breathing apparatus plus protective gloves in the event of a fire.▸ Prevent, by any means available, spillage from entering drains or water courses.▸ Use fire fighting procedures suitable for surrounding area. |
| Fire/Explosion Hazard | <ul style="list-style-type: none">▸ Non combustible.▸ Not considered a significant fire risk, however containers may burn. <p>Decomposes on heating and produces toxic fumes of: carbon dioxide (CO₂) nitrogen oxides (NO_x) sulfur oxides (SO_x) other pyrolysis products typical of burning organic material.</p> |

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

| | |
|---------------------|--|
| Minor Spills | <ul style="list-style-type: none">▸ Clean up all spills immediately.▸ Avoid breathing vapours and contact with skin and eyes.▸ Control personal contact with the substance, by using protective equipment.▸ Contain and absorb spill with sand, earth, inert material or vermiculite. <p>Slippery when spilt.</p> |
| Major Spills | <p>Moderate hazard.</p> <ul style="list-style-type: none">▸ Clear area of personnel and move upwind.▸ Alert Fire Brigade and tell them location and nature of hazard.▸ Wear breathing apparatus plus protective gloves. <p>Slippery when spilt.</p> |

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

SECTION 7 Handling and storage

Precautions for safe handling

| | |
|--------------------------|--|
| Safe handling | <ul style="list-style-type: none">▸ DO NOT allow clothing wet with material to stay in contact with skin▸ Avoid all personal contact, including inhalation.▸ Wear protective clothing when risk of exposure occurs.▸ Use in a well-ventilated area.▸ Avoid contact with moisture. |
| Other information | <ul style="list-style-type: none">▸ Store in original containers.▸ Keep containers securely sealed.▸ Store in a cool, dry, well-ventilated area.▸ Store away from incompatible materials and foodstuff containers. |

Conditions for safe storage, including any incompatibilities

| | |
|---------------------------|---|
| Suitable container | <ul style="list-style-type: none">▸ Polyethylene or polypropylene container.▸ Packing as recommended by manufacturer.▸ Check all containers are clearly labelled and free from leaks. |
|---------------------------|---|

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|------------|----------------------|-----------------------|-------------------------|
| urea | 30 mg/m ³ | 280 mg/m ³ | 1,700 mg/m ³ |

| Ingredient | Original IDLH | Revised IDLH |
|----------------------------|---------------|---------------|
| alcohols C9-11 ethoxylated | Not Available | Not Available |
| lactic acid | Not Available | Not Available |
| citric acid | Not Available | Not Available |
| urea | Not Available | Not Available |
| water | Not Available | Not Available |


Occupational Exposure Banding

| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|----------------------------|-----------------------------------|----------------------------------|
| alcohols C9-11 ethoxylated | E | ≤ 0.1 ppm |
| citric acid | E | ≤ 0.01 mg/m ³ |
| urea | E | ≤ 0.01 mg/m ³ |

Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

Exposure controls

| | |
|--|---|
| Appropriate engineering controls | <p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p> |
| Individual protection measures, such as personal protective equipment |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ 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. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <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> <p>Personal hygiene is a key element of effective hand care.</p> |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream. ▶ Skin cleansing cream. |

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the: "Forsberg Clothing Performance Index".

Respiratory protection

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

Selection of the Class and Type of respirator will depend upon the level of

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:
WD CLEANER DEODORISER BIO-ZYME 5L

| Material | CPI |
|------------------|-----|
| NEOPRENE | A |
| BUTYL | C |
| NATURAL RUBBER | C |
| NATURAL+NEOPRENE | C |
| NEOPRENE/NATURAL | C |
| NITRILE | C |
| PVA | C |
| PVC | C |
| VITON | 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.

breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|------------------------------------|--|----------------------|----------------------|
| up to 10 | 1000 | AB-AUS / Class1 P2 | - |
| up to 50 | 1000 | - | AB-AUS / Class 1 P2 |
| up to 50 | 5000 | Airline * | - |
| up to 100 | 5000 | - | AB-2 P2 |
| up to 100 | 10000 | - | AB-3 P2 |
| 100+ | | | Airline** |

* - Continuous Flow ** - Continuous-flow or positive pressure demand

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(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| Appearance | Dark brown liquid with malt like odour; mixes with water. | | |
|--|---|---|----------------|
| Physical state | Liquid | Relative density (Water = 1) | 1.01 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | ~4.0 | Decomposition temperature (°C) | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | Not Applicable | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Applicable | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Applicable | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water | Miscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 Stability and reactivity

| Reactivity | See section 7 |
|------------|---------------|
|------------|---------------|

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

SECTION 11 Toxicological information

Information on toxicological effects

| | |
|---------------------|---|
| Inhaled | 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. |
| Ingestion | The material has NOT 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. |
| Skin Contact | This material can cause inflammation of the skin on contact in some persons. |
| Eye | This material can cause eye irritation and damage in some persons. |
| Chronic | Prolonged or repeated skin contact may cause degreasing, followed by drying, cracking and skin inflammation. |

| WD CLEANER DEODORISER BIO-ZYME 5L | TOXICITY | IRRITATION |
|--|---|---|
| | Not Available | Not Available |
| alcohols C9-11 ethoxylated | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[2] | Eye (human): SEVERE |
| | Inhalation(Rat) LC50: >1.6 mg/14h ^[1] | Eye: adverse effect observed (irritating) ^[1] |
| | Oral (Rat) LD50: 1378 mg/kg ^[2] | Skin: no adverse effect observed (not irritating) ^[1] Skin: SEVERE * [SHELL CCINFO 1441905] |
| lactic acid | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[1] | Eye (rabbit): 0.750 mg SEVERE |
| | Inhalation(Rat) LC50: >7.94 mg/14h ^[1] | Skin (rabbit): 5 mg/24h SEVERE |
| Oral (Rat) LD50: 3543 mg/kg ^[1] | | |
| citric acid | TOXICITY | IRRITATION |
| | dermal (rat) LD50: >2000 mg/kg ^[1] | Eye (rabbit): 0.75 mg/24h-SEVERE |
| Oral (Rat) LD50: 3000 mg/kg ^[2] | Skin (rabbit): 500 mg/24h - mild | |
| urea | TOXICITY | IRRITATION |
| | dermal (rat) LD50: 8200 mg/kg ^[2] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Oral (Rat) LD50: 8471 mg/kg ^[2] | Skin (human): 22 mg/3 d (I)- mild Skin: no adverse effect observed (not irritating) ^[1] |
| water | TOXICITY | IRRITATION |
| | Oral (Rat) LD50: >90000 mg/kg ^[2] | Not Available |
| 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 | |

| | |
|-----------------------------------|---|
| ALCOHOLS C9-11 ETHOXYLATED | <p>Somnolence, ataxia, diarrhoea recorded.</p> <p>Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products.</p> <p>Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitizers. The oxidation products also cause irritation.</p> <p>Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported.</p> <p>Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.</p> <p>Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral</p> |
|-----------------------------------|---|

| | |
|--|--|
| | doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal. |
| LACTIC ACID | For simple alpha-hydroxy carboxylic acids and their salts: Experimental data available for members of this group shows that they have low acute, repeat-dose, reproductive and developmental toxicity. They are eye and skin irritants, but are not expected to be skin sensitizers. Testing shows they have little or no potential to cause mutations or cancer. For acid mists, aerosols, vapours Test results suggest that eukaryotic cells are susceptible to genetic damage when the pH falls to about 6.5. Cells from the respiratory tract have not been examined in this respect. Mucous secretion may protect the cells of the airway from direct exposure to inhaled acidic mists (which also protects the stomach lining from the hydrochloric acid secreted there). |
| CITRIC ACID | For citric acid (and its inorganic citrate salts) 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. |
| UREA | Altered sleep time, change in motor activity, antipsychosis, dyspnea, methaemoglobinaemia, convulsions, lymphomas recorded. Carcinogenic by RTECS criteria. For urea: Urea is used in ointments and creams to treat dry skin. Long-term follow-up studies have indicated that the substance does not cause allergy, and is virtually free from side effects. It is usually tolerated well, although diarrhea is sometimes reported after ingestion of very large amounts (60-90 grams/day). There is the possibility that infection of H. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. |
| WD CLEANER DEODORISER BIO-ZYME 5L & WATER | No significant acute toxicological data identified in literature search. |
| ALCOHOLS C9-11 ETHOXYLATED & LACTIC ACID | The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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. |
| LACTIC ACID & CITRIC ACID & UREA | 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. |
| CITRIC ACID & UREA | 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 | ✗ | Carcinogenicity | ✗ |
| Skin Irritation/Corrosion | ✗ | Reproductivity | ✗ |
| Serious Eye Damage/Irritation | ✓ | STOT - Single Exposure | ✗ |
| Respiratory or Skin sensitisation | ✗ | STOT - Repeated Exposure | ✗ |
| Mutagenicity | ✗ | Aspiration Hazard | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

| WD CLEANER DEODORISER BIO-ZYME 5L | Endpoint | Test Duration (hr) | Species | Value | Source |
|--|-----------------|---------------------------|----------------|---------------|---------------|
| | Not Available | Not Available | Not Available | Not Available | Not Available |

| alcohols C9-11 ethoxylated | Endpoint | Test Duration (hr) | Species | Value | Source |
|-----------------------------------|-----------------|---------------------------|-------------------------------|-----------------|---------------|
| | LC50 | 96h | Fish | 7mg/l | Not Available |
| | EC50 | 96h | Algae or other aquatic plants | 1.4mg/l | 2 |
| | EC50 | 48h | Crustacea | 2.217-3.523mg/l | 4 |
| | NOEC(ECx) | 720h | Fish | 0.11-0.28mg/l | 2 |

| lactic acid | Endpoint | Test Duration (hr) | Species | Value | Source |
|--------------------|-----------------|---------------------------|----------------|--------------|---------------|
| | EC50(ECx) | 48h | Crustacea | 130mg/l | 2 |
| | LC50 | 96h | Fish | 600mg/l | Not Available |

| | | | | | |
|----------------|--|---------------------------|-------------------------------|---------------|---------------|
| | EC50 | 72h | Algae or other aquatic plants | >2800mg/L | 2 |
| | EC50 | 48h | Crustacea | 130mg/l | 2 |
| citric acid | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 48h | Crustacea | >50mg/l | 2 |
| | EC50 | 72h | Algae or other aquatic plants | 990mg/l | 2 |
| | LC50 | 96h | Fish | >100mg/l | 2 |
| | EC50 | 48h | Crustacea | >50mg/l | 2 |
| urea | Endpoint | Test Duration (hr) | Species | Value | Source |
| | ErC50 | 72h | Algae or other aquatic plants | 24541.9mg/l | 2 |
| | NOEC(ECx) | 5040h | Fish | >=1.71mg/l | 2 |
| | EC50 | 72h | Algae or other aquatic plants | 24541.9mg/l | 2 |
| | LC50 | 96h | Fish | 4.65-8.48mg/l | 4 |
| | EC50 | 48h | Crustacea | 3910mg/l | 4 |
| water | Endpoint | Test Duration (hr) | Species | Value | Source |
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| Legend: | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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 |
|-------------|-------------------------|------------------|
| lactic acid | LOW | LOW |
| citric acid | LOW | LOW |
| urea | LOW | LOW |
| water | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|-------------|----------------------|
| lactic acid | LOW (LogKOW = -0.72) |
| citric acid | LOW (LogKOW = -1.64) |
| urea | LOW (BCF = 10) |

Mobility in soil

| Ingredient | Mobility |
|-------------|-------------------|
| lactic acid | HIGH (KOC = 1) |
| citric acid | LOW (KOC = 10) |
| urea | LOW (KOC = 4.191) |

SECTION 13 Disposal considerations

Waste treatment methods

| | |
|-------------------------------------|---|
| Product / Packaging disposal | <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"> ▸ Reduction ▸ Reuse ▸ Recycling ▸ Disposal (if all else fails) <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.</p> <ul style="list-style-type: none"> ▸ 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.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 Transport information

Labels Required

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

Land transport (UN): 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

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|----------------------------|---------------|
| alcohols C9-11 ethoxylated | Not Available |
| lactic acid | Not Available |
| citric acid | Not Available |
| urea | Not Available |
| water | Not Available |

Transport in bulk in accordance with the IGC Code

| Product name | Ship Type |
|----------------------------|---------------|
| alcohols C9-11 ethoxylated | Not Available |
| lactic acid | Not Available |
| citric acid | Not Available |
| urea | Not Available |
| water | Not Available |

SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard |
|------------|---|
| HSR002530 | Cleaning Products Subsidiary Hazard Group Standard 2020 |

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

alcohols C9-11 ethoxylated is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)

lactic acid is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)

citric acid is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls
 New Zealand Hazardous Substances and New Organisms (HSNO) Act -
 Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act -
 Classification of Chemicals - Classification Data
 New Zealand Inventory of Chemicals (NZIoC)

urea is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls
 New Zealand Hazardous Substances and New Organisms (HSNO) Act -
 Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act -
 Classification of Chemicals - Classification Data
 New Zealand Inventory of Chemicals (NZIoC)

water is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Quantities |
|----------------|----------------|
| Not Applicable | Not Applicable |

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities |
|--------------------|----------------|
| Not Applicable | Not Applicable |

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Gas (aggregate water capacity in mL) | Liquid (L) | Solid (kg) | Maximum quantity per package for each classification |
|----------------|--------------------------------------|----------------|----------------|--|
| Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |

Tracking Requirements

Not Applicable

National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (alcohols C9-11 ethoxylated; lactic acid; citric acid; urea; water) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | No (alcohols C9-11 ethoxylated) |
| Japan - ENCS | Yes |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - FBEPH | No (alcohols C9-11 ethoxylated) |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

SECTION 16 Other information

| | |
|----------------------|------------|
| Revision Date | 20/08/2021 |
| Initial Date | 23/10/2018 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|--|
| 4.1 | 14/09/2020 | Hazards identification - Classification, Identification of the substance / mixture and of the company / undertaking - Synonyms |
| 5.1 | 20/08/2021 | Classification change due to full database hazard calculation/update. |

Other information

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

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

ES: Exposure Standard

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

AIIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List

NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory

NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act

TCSI: Taiwan Chemical Substance Inventory

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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