ACCO Brands Australia Pty Ltd

Version No: **1.2** Safety Data Sheet according to WHS and ADG requirements

Issue Date: 16/01/2018 Print Date: 15/03/2016 Initial Date: 10/02/2016 S.GHS.AUS.EN

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

Product Identifier

| Product name | GECA Orange Hand Cleaner | |
|---|---|--|
| Synonyms | Orange Pumice Hand Degreaser | |
| Other means of identification | 500ML - 638170313 5L - 638170713 15L - 638170813 | |
| Relevant identified uses of the substance or mixture and uses advised against | | |

Relevant identified uses Hand Degreaser

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 | +61-2-96740900 | |
| Fax | +61-2-96740910 | |
| 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] | Serious Eye Damage Category 1, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3 | |
| Legend: | 1. Classified by Chernwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI | |
| Label elements | | |
| GHS label elements | | |
| SIGNAL WORD | DANGER | |
| Hazard statement(s) | | |
| H318 | Causes serious eye damage. | |
| H402 | Harmful to aquatic life | |
| H412 | Harmful to aquatic life with long lasting effects. | |

Precautionary statement(s) Prevention

| P101 | 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 eye protection/face protection. | |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. | |

| P273 | Avoid release to the environment. | |
|------|--|--|
| P272 | Contaminated work clothing should not be allowed out of the workplace. | |

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. | |
|----------------|--|--|
| P310 | nmediately call a POISON CENTER or doctor/physician. | |
| P363 | Wash contaminated clothing before reuse. | |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. | |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. | |

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

| P501 | Dispose of contents/container in accordance with local regulations. | |
|------|---|--|
| | | |

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|-------------|-----------|--|
| 7732-18-5 | >60 | water |
| 51981-21-6 | <10 | tetrasodium N,N-bis(carboxymethyl)-L-glutamate |
| 9007-20-9 | <10 | Carbomer |
| 61788-59-8 | <10 | methyl cocoate |
| 166736-08-9 | <10 | isodecanol propoxylated |
| 57-11-4 | <10 | stearic acid |
| 61789-91-1 | <10 | jojoba oil |
| 58-95-7 | <10 | D-alpha-tocopherol acetate |
| 8039-09-6 | <10 | lanolin, ethoxylated |
| 6093-03-4 | <10 | diphenyl phenol |
| 56-81-5 | <10 | glycerol |
| 26542-23-4 | <10 | 4,5-dichloro-2-methyl-4-isothiazolin-3-one |
| 2634-33-5 | <10 | 1,2-benzisothiazoline-3-one |
| 102-71-6 | <10 | triethanolamine |
| 1332-09-8 | <10 | pumice |

SECTION 4 FIRST AID MEASURES

Description of first aid measures

| Eye Contact | Generally not applicable. | |
|--------------|---|--|
| Skin Contact | If skin contact occurs: 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 | If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary. | |
| Ingestion | Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. | |

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 None known.

Advice for firefighters

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| When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the sparticles. When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. | silica |
|---|--------|
| Fire Fighting Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. Slight hazard when exposed to heat, flame and oxidisers. | |
| Fire/Explosion Hazard Non combustible. Not considered a significant fire risk, however containers may burn. When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles.May emit poisonous fumes.May emit corrosive fumes. | s |

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| Minor Spills | 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. Wipe up. Place in a suitable, labelled container for waste disposal. Clean up all spills immediately. Secure load if safe to do so. Bundle/collect recoverable product. Collect remaining material in containers with covers for disposal. |
|--------------|---|
| Major Spills | Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal. Clean up all spills immediately. Wear protective clothing, safety glasses, dust mask, gloves. Secure load if safe to do so. Bundle/collect recoverable product. Use dry clean up procedures and avoid generating dust. Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Water may be used to prevent dusting. Collect remaining material in containers with covers for disposal. |

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

| Safe handling | Overheating of ethoxylates/ alkoxylates in air should be avoided. When some ethoxylates are heated vigorously in the presence of air or oxygen, at temperatures exceeding 160 C, they may undergo exothermic oxidative degeneration resulting in self-heating and autoignition. Nitrogen blanketing will minimise the potential for ethoxylate oxidation. Prolonged storage in the presence of air or oxygen may cause product degradation. Oxidation is not expected when stored under a nitrogen atmosphere. Inert gas blanket and breathing system needed to maintain color stability. Use dry inert gas having at least -40 C dew point. Trace quantities of ethylene oxide may be present in the material. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. |
|-------------------|---|
| Other information | ► Store away from incompatible materials. |

Conditions for safe storage, including any incompatibilities

| Suitable container | Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. |
|-------------------------|--|
| Storage incompatibility | For aluminas (aluminium oxide): Incompatible with hot chlorinated rubber. In the presence of chlorine trifluoride may react violently and ignite. May initiate explosive polymerisation of olefin oxides including ethylene oxide. Produces exothermic reaction above 200 C with halocarbons and an exothermic reaction at ambient temperatures with halocarbons in the presence of other metals. Produces exothermic reaction with oxygen difluoride. May form explosive mixture with oxygen difluoride. Forms explosive mixtures with sodium nitrate. |

Reacts vigorously with vinyl acetate.

- Silicas:
- react with hydrofluoric acid to produce silicon tetrafluoride gas
- react with venon hexafluoride to produce explosive xenon trioxide
 reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds
- may react with fluorine, chlorates
- are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate
 may react vigorously when heated with alkali carbonates.
- None known

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------|-----------------|-----------------|----------|---------------|---------------|---------------|
| Australia Exposure Standards | stearic acid | Stearates | 10 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | glycerol | Glycerin mist | 10 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | triethanolamine | Triethanolamine | 5 mg/m3 | Not Available | Not Available | Sen |

EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---|---------------|-----------|------------|
| Carbomer | Acrylic acid polymers; (Acrylic polymer or resin) | 7.5 mg/m3 | 83 mg/m3 | 500 mg/m3 |
| stearic acid | Octadecanoic acid, n-; (Stearic acid) | 0.13 mg/m3 | 1.4 mg/m3 | 8.5 mg/m3 |
| glycerol | Glycerine (mist); (Glycerol; Glycerin) | 30 mg/m3 | 310 mg/m3 | 2500 mg/m3 |
| triethanolamine | Triethanolamine; (Trihydroxytriethylamine) | 15 mg/m3 | 51 mg/m3 | 1100 mg/m3 |
| Ingredient | Original IDLH | Revised IDLH | | |
| water | Not Available | Not Available | | |
| tetrasodium N,N-bis(carboxymethyl)-L- glutamate | Not Available | Not Available | | |
| Carbomer | Not Available | Not Available | | |
| methyl cocoate | Not Available | Not Available | | |
| isodecanol propoxylated | Not Available | Not Available | | |
| stearic acid | Not Available | Not Available | | |
| jojoba oil | Not Available | Not Available | | |
| D-alpha-tocopherol acetate | Not Available | Not Available | | |
| lanolin, ethoxylated | Not Available | Not Available | | |
| diphenyl phenol | Not Available | Not Available | | |
| glycerol | Not Available | Not Available | | |
| 4,5-dichloro-2-methyl- 4-isothiazolin-3-one | Not Available | Not Available | | |
| 1,2-benzisothiazoline-3-one | Not Available | Not Available | | |
| triethanolamine | Not Available | Not Available | | |
| pumice | Not Available | Not Available | | |

Exposure controls

I

| Appropriate engineering 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. |
|-------------------------------------|--|
| Personal protection | |
| Eye and face protection | No special equipment required due to the physical form of the product. 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. 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. |
|-----------------------|---|
| Skin protection | See Hand protection below |
| Hands/feet protection | Wear general protective gloves, eg. light weight rubber gloves. Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: 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. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. No special equipment required due to the physical form of the product. |
| Body protection | See Other protection below |
| Other protection | Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit. |
| Thermal hazards | 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 | С |
| NATURAL RUBBER | С |
| NATURAL+NEOPRENE | С |
| NEOPRENE | С |
| NEOPRENE/NATURAL | С |
| NITRILE | С |
| PVA | С |
| PVC | С |
| VITON | С |

Respiratory protection

Type AK-P 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 | AK-AUS P2 | - | AK-PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | AK-AUS / Class 1 P2 | - |
| up to 100 x ES | - | AK-2 P2 | AK-PAPR-2 P2 ^ |

^ - 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(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)

* 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| Appearance | Not Available | | |
|--|---------------|--|---------------|
| | | | |
| Physical state | article | Relative density (Water = 1) | 0.98-1.02 |
| Odour | Citrus | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | 6-8 | Decomposition temperature | 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 Available |
| Flash point (°C) | Not Available | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Available | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |

Continued...

| Solubility in water (g/L) | Miscible | pH as a solution (1%) | Not Available |
|---------------------------|---------------|-----------------------|---------------|
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 STABILITY AND REACTIVITY

| | a de la construcción de la constru |
|-------------------------------------|--|
| Reactivity | See section 7 |
| Chemical stability | Product is considered stable and 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. Not normally a hazard due to non-volatile nature of product Workers exposed to terphenyl and its isomers are associated with ocular and respiratory tract irritation. Higher concentrations were lethal and produced both respiratory diseases and damaging effect on the system. | | |
|--|--|-------------------------|--|
| Ingestion | Acute toxic responses to aluminium are confined to the more soluble forms. 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. In a 14-day dietary study, young rats fed 0.2% of the various isomers of terphenyl showed increased plasma cholesterol, low body weight (o-, and m- isomers), liver hypertrophy (m-isomer) and adrenal hypertrophy (o-isomer). Nonionic surfactants may produce localised irritation of the oral or gastrointestinal lining and induce vomiting and mild diarrhoea. | | |
| Skin Contact | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Though considered non-harmful, slight irritation may result from contact because of the abrasive nature of the aluminium oxide particles. Thus it may cause itching and skin reaction and inflammation. Topical application of terphenyl and its may produce a damaging effect on the skin (irritation, sensitisation, scaring and skin death) depending on the animal involved. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. | | |
| Eye | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). Application of terphenyl to rabbit Φ s eye can cause extreme conjunctival irritation. Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant. | | |
| Chronic | Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Animal testing shows long term exposure to aluminium oxides may cause lung disease and cancer, depending on the size of the particle. The smaller the size, the greater the tendencies of causing harm. Exposure to large doses of aluminium has been connected with the degenerative brain disease Alzheimer's Disease. Workers repeatedly exposed to terphenyl developed non-specific readily reversible skin rash. Feeding trials in rats with un-irradiated mixtures of the isomers of terphenyl showed low body weight, reduced haemoglobin and damaging effect on the kidney. Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabiling lung disease that may take years to develop. | | |
| | | | |
| GECA Orange Hand Cleaner | Not Available | Not Available | |
| | ΤΟΧΙΟΙΤΥ | IRRITATION | |
| water | Oral (rat) LD50: >90000 mg/kg ^[2] | Not Available | |
| | тохісіту | IRRITATION | |
| tetrasodium N,N-bis(carboxymethyl)-L- | dermal (rat) LD50: >2000 mg/kg ^[1] | Eye : Mild * | |
| glutamate | Oral (rat) LD50: >2000 mg/kg** ^[2] | Skin : Not irritating * | |
| | TOXICITY | IRRITATION | |
| | Dermal (rabbit) LD50: >3000 mg/kg*g ^[2] | Not Available | |
| | Oral (rat) LD50: >1000 mg/kg ^[2] | 1 1 1 1 | |
| Carbomer | Oral (rat) LD50: >2500 mg/kg*g ^[2] | | |
| | Oral (rat) LD50: 2500 mg/kgd ^[2] | | |
| | Oral (rat) LD50: 4100 mg/kgd ^[2] | | |

GECA Orange

Hand Cleaner

GECA Orange Hand Cleaner

| | ΤΟΧΙΟΙΤΥ | IRRITATION |
|--|--|-------------------------------------|
| methyl cocoate | Not Available | Not Available |
| | ΤΟΧΙCITY | IRRITATION |
| | Oral (rat) LD50: >2000 mg/kg** ^[2] | Eye: moderate to SEVERE* |
| isodecanol propoxylated | | Skin (rabbit): irritant (OECD 404)* |
| | | Skin : Moderate |
| | ΤΟΧΙΟΙΤΥ | IRRITATION |
| stearic acid | Dermal (rabbit) LD50: >2000 mg/kg ^[1] | Skin (human): 75 mg/3d-l-mild |
| | Oral (rat) LD50: >2000 mg/kg ^[1] | Skin (rabbit):500 mg/24h-moderate |
| | ΤΟΧΙΟΙΤΥ | IRRITATION |
| jojoba oil | Not Available | Not Available |
| | тохісіту | IRRITATION |
| | Oral (rat) LD50: >16000 mg/kg ^[2] | * [ROCHE] |
| D-alpha-tocopherol acetate | | Eye (rabbit): non-irritating * |
| | | Skin (rabbit): non-irritating * |
| | ΤΟΧΙΟΙΤΥ | IRRITATION |
| lanolin, ethoxylated | Oral (rat) LD50: >21300 mg/kg** ^[2] | Eye (rabbit): non-irritating * |
| | | Skin (rabbit): non-irritating * |
| | тохісіту | IRRITATION |
| diphenyl phenol | Not Available | Not Available |
| | ΤΟΧΙΟΙΤΥ | IRRITATION |
| alveerol | dermal (guinea pig) D50: 54000 mg/kg ^[1] | Not Available |
| giyeeror | Oral (rat) LD50: >20-<39800 mg/kg> ^[1] | |
| | τοχιζιτγ | IRRITATION |
| 4,5-dichloro-2-methyl- 4-isothiazolin-3-one | Not Available | Not Available |
| | | |
| | TOXICITY | IRRITATION |
| 1,2-benzisothiazoline-3-one | Oral (rat) LD50: 670 mg/kg(male)*n ^[2] | *MAK Documentation |
| | | Nil reported |
| | ΤΟΧΙΟΙΤΥ | IRRITATION |
| | dermal (rat) LD50: >18080 mg/kg ^[2] | Eye (rabbit): 0.1 ml - |
| | Oral (rat) LD50: 5559.6 mg/kg(female) * ^[2] | Eye (rabbit): 10 mg - mild |
| | | Eye (rabbit): 5.62 mg - SEVERE |
| | | minor conjunctival irritation |
| triethanolamine | | minor iritis, |
| | | no comeal injury * |
| | | no irritation * |
| | | Skin (human): 15 mg/3d (int)-mild |
| | | Skin (rabbit): 4 h occluded |
| | | Skin (rabbit): 560 mg/24 hr- mild |
| | | with significant discharge; |
| numice | ΤΟΧΙΟΙΤΥ | IRRITATION |
| paniec | Not Available | 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 | |

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 uticaria, 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. |
|---|---|
| | The effects of similar substances have been characterised. 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. |
| | Ho significant active toxicological data identified in interactive search. Human beings 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 ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response. Moreover, no fatal case of poisoning with alcohol ethoxylates have ever been reported. Multiple studies investigating the acute toxicity of alcohol ethoxylates have shown that the use of these compounds is of |
| | low concern in terms of oral and demal toxicity. Clinical animal studies indicate these chemicals may produce gastrointestinal irritation such as ulcerations of the stomach, pilo-erection, diarrhea, and lethargy. Similarly, slight to severe irritation of the skin or eye was generated when undiluted alcohol ethoxylates were applied to the skin and eyes of rabbits and rats. The chemical shows no indication of being a genotoxin, carcinogen, or mutagen (HERA 2007). |
| | For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals. After ingestion, there is limited accumulation of SAS in body tissues and rapid elimination occurs. Intestinal absorption has not been calculated, but appears to be insignificant in animals and humans. SASs injected subcutaneously are subjected to rapid dissolution and removal. There is no indication of matcheling of SAS is ontended on thempean deviced and thempean available data. |
| TETRASODIUM N,N-BIS(CARBOXYMETHYL)-L- GLUTAMATE | for a similar product containing 71% GLDA-Na4 Not irritating to rabbit kin after a 4 hour exposure to 0.5 ml (164 mg). The Primary Irritation Index was 0.0 Minimally irritating to rabbit eyes following the installation of 0.1 ml (31 mg). The maximum irritation score was 3.3 Not sensitising to guinea pig skin (75% GLDA-Na4) Negative in the Ames CHO HGPRT forward mutation and micronucleus test. Weakly clastogenic to CHL cells in vitro - In a 90-day oral gavage study, GLDA induced reversible changes in some blood and urine parameters without concomitant microscopic changes in kidneys or other organs, The NOAEL is 300 mg/kg/day * Akzo Nobel SDS |
| CARBOMER | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. 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. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. No significant acute toxicological data identified in literature search. 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 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. The effects of similar substances have been characterised |
| ISODECANOL PROPOXYLATED | 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. Human beings 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 ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response. Moreover, no fatal case of poisoning with alcohol ethoxylates has ever been reported. Multiple studies investigating the acute toxicity of alcohol ethoxylates have shown that the use of these compounds is of low concern in terms of oral and dermal toxicity . Clinical animal studies indicate these chemicals may produce gastrointestinal irritation such as ulcerations of the stomach, pilo-erection, diarrhea, and lethargy. Similarly, slight to severe irritation of the skin or eye was generated when undiluted alcohol ethoxylates were applied to the skin and eyes of rabbits and rats. The chemical shows no indication of being a genotoxin, carcinogen, or mutagen (HERA 2007). |
| STEARIC ACID | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. 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. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. 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. Equivocal tumorigen by RTEC criteria |
| JOJOBA OIL | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. 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. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. No significant acute toxicological data identified in literature search. Group A aliphatic monoesters (fatty acid esters) cause very little or no injury and are considered safe for use in cosmetics. |
| D-ALPHA-TOCOPHEROL | for DL-form |
| LANOLIN, ETHOXYLATED | Human beings 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 ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response. Moreover, no fatal case of poisoning with alcohol ethoxylates has ever been reported. Multiple studies investigating the acute toxicity of alcohol ethoxylates have shown that the use of these compounds is of low concern in terms of oral and dermal toxicity. Clinical animal studies indicate these chemicals may produce gastrointestinal irritation such as ulcerations of the stomach, pilo-erection, diarrhea, and |

| | lethargy. Similarly, slight to severe irritation of the skin or eye was generated when undiluted alcohol ethoxylates were applied to the skin and eyes of rabbits and rats. The chemical shows no indication of being a genotoxin, carcinogen, or mutagen (HERA 2007). 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. * [Emery Chemical Co.] |
|--|---|
| DIPHENYL PHENOL | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritant. Substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. 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 uticaria, 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 ind |
| GLYCEROL | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. 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. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it is of low toxicity. There is no significant evidence to suggest that it causes cancer, genetic, reproductive or developmental toxicity. |
| 4,5-DICHLORO-2-METHYL- 4-ISOTHIAZOLIN-3-ONE | 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. No significant acute toxicological data identified in literature search. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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. |
| 1,2-BENZISOTHIAZOLINE-3-ONE | 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 uticaria 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 uticaria, involve antibody- mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisting 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. Acute toxicity data show that 1,2-benzisothiazoline-3-one (BIT) is moderately toxic by the oral and dermal routes but that this chemical is a severe eye irritant. Irritation to the skin from acute data show only mild skin irritation , but repeated dermal application indicated a more significant skin irritation response. The neurotoxicity observed in the rat acute oral toxicity study (piloerection and upward curvature of the spine at 300 mg/kg) and the acute dermal toxicity study (upward curvature of the spine was observed in increased incidence, but this was absent after day 5 post-dose at a dose of 2000 mg/kg) were felt to be at exposures in excess of those expected from the use pattern of this pesticide and that such effects would not be observed at estimated exposure obses. Subchronic oral toxicity studies showed systemic effects after repeated oral administration including decreased body weight, increased incidence of forestomach hyperplasia, and non-glandular stomach lesions in rats. In dogs, the effects occurred at lower doses than in rats, and included alterations in blood chem |
| TRIETHANOLAMINE | 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 important allergen than one with stronger sensitising p noteworthy if they produce an allergic test reaction in n | equally important. A weakly sensitising otential with which few individuals cor nore than 1% of the persons tested. | substance which is widely distributed can be a more ne into contact. From a clinical point of view, substances are |
|-----------------------------------|---|---|--|
| | Asthma-like symptoms may continue for months or even as reactive airways dysfunction syndrome (RADS) with a group of RADS include the absence of preceding within minutes to hours of a documented exposure to bronchial hyperreactivity on methacholine challenge teincluded in the criteria for diagnosis of RADS. RADS concentration of and duration of exposure to the irritative exposure due to high concentrations of irritating subst is characterised by dyspnea, cough and mucus produc While it is difficult to generalise about the full range of p those used in the manufacture of polyurethane and pol adverse health effects. Many amine-based compounds can induce hista bronchoconstriction or bronchial asthma and rhin systemic symptoms include headache, nausea, fa (reddening of the skin), urticaria (hives), and facia pharmacological action of amines are usually trar Typically, there are four routes of possible or potential Inhalation: Inhalation of vapors may, depending upon the physical moderate to severe irritation of the tissues of the nose Products with higher vapour pressures have a greater The material may cause skin irritation after prolonged vesicles, scaling and thickening of the skin. Studies done show that triethanolamine is of low toxici cause cancer, genetic defects, reproductive or develop The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limi NOTE: Substance has been shown to be mutagenic if DNA. Lachrymation, diarrhoea, convulsions, urinary tract ch chances in liver weight demantitis after systemic exponention. | en years after exposure to the material ich can occur following exposure to hi respiratory disease, in a non-atopic inc he irritant. A reversible airflow pattern, sting and the lack of minimal lymphocy (or asthma) following an irritating inha ing substance. Industrial bronchitis, or ance (often particulate in nature) and i tion. totential health effects posed by expos yisocyanurate foams, it is agreed that of mine liberation, which, in turn, can trig itis. intness, anxiety, a decrease in blood p I dedma (swelling). Systemic effects (isient. exposure: inhalation, skin contact, eye and chemical properties of the specifi and throat and can irritate the lungs. potential for higher airborne concentr ausing pronounced inflammation. Rep or repeated exposure and may produce y following high dose exposure by swa mental toxicity. | ceases. This may be due to a non-allergenic condition known gh levels of highly irritating compound. Key criteria for the lividual, with abrupt onset of persistent asthma-like symptoms on spirometry, with the presence of moderate to severe tic inflammation, without eosinophilia, have also been alation is an infrequent disorder with rates related to the the other hand, is a disorder that occurs as result of s completely reversible after exposure ceases. The disorder ure to the many different amine compounds, characterised by overexposure to the majority of these materials may cause ger allergic and other physiological effects, including ressure, tachycardia (rapid heartbeat), itching, erythema those affecting the body) that are related to the contact, and ingestion. c product and the degree and length of exposure, result in ations. This increases the probability of worker exposure. weated or prolonged exposure to irritants may produce e on contact skin redness, swelling, the production of allowing, skin contact or inhalation. It has not been shown to mily of chemicals producing damage or change to cellular anges in testicular weight, changes in thymus weight, recorded Equivocal tumouringen by RTECS criteria. Dermal |
| PUMI | For silica amorphous: When experimental animals inhale synthetic amorphomajority of SAS is excreted in the faeces and there is livithout modification in animals and humans. SAS is not After ingestion, there is limited accumulation of SAS in appears to be insignificant in animals and humans. SM metabolism of SAS in animals or humans based on choos significant acute toxicological data identified in lite. The most dangerous operations involving exposure to characteristic signs of silicosis observed in the lungs a disorders (emphysema and sometimes pleural damar acdiological appearance of lungs in liparitosis is the p Pneumoconicosis was found in pumice stone workers, | us silica (SAS) dust, it dissolves in the ittle accumulation in the body. Followir t expected to be broken down (metabo body tissues and rapid elimination or Ss injected subcutaneously are subje emical structure and available data. rature search. pumice are kiln drying and sifting bec and sclerosis of the hilar lymphatic gla ge), cardiovascular disorders (cor puln diological evidence of aortitis is more u resence of linear thickening due to lar n Italy, within a few years to decades o | lung fluid and is rapidly eliminated. If swallowed, the vast g absorption across the gut, SAS is eliminated via urine lised) in mammals. curs. Intestinal absorption has not been calculated, but cted to rapid dissolution and removal. There is no indication of ause of the large amount of dust produced. Apart from the nds, the study of some fatal cases have revealed respiratory nonale) and renal disorders (albuminuria, haematuria, common and serious than in the case of silicosis. A typical ninar atelactosis. f initial exposure. |
| WATER & METHYL COCOA | TE No significant acute toxicological data identified in lite | erature search. | |
| Acute Toxicity | \odot | Carcinogenicity | 0 |
| Skin Irritation/Corrosion | 0 | Reproductivity | 0 |
| Serious Eye Damage/Irritation | * | STOT - Single Exposure | \otimes |
| Respiratory or Skin sensitisation | * | STOT - Repeated Exposure | 0 |
| Mutagenicity | \odot | Aspiration Hazard | \odot |

Legend:

Data available but does not fill the criteria for classification
 Data required to make classification available

S – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

| Ingredient | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|----------|--------------------|-------------------------------|--------------|--------|
| water | EC50 | 384 | Crustacea | 199.179mg/L | 3 |
| water | EC50 | 96 | Algae or other aquatic plants | 8768.874mg/L | 3 |
| water | LC50 | 96 | Fish | 897.520mg/L | 3 |
| tetrasodium N,N-bis(carboxymethyl)-L- glutamate | LC50 | 96 | Fish | >100mg/L | 2 |
| tetrasodium N,N-bis(carboxymethyl)-L- glutamate | EC50 | 48 | Crustacea | >100mg/L | 2 |

| tetrasodium N,N-bis(carboxymethyl)-L- glutamate | NOEC | 72 | Algae or other aquatic plants | >=100mg/L | 2 |
|---|---|-----|-------------------------------|----------------|---|
| Carbomer | EC50 | 384 | Crustacea | 389.869mg/L | 3 |
| Carbomer | EC50 | 96 | Algae or other aquatic plants | 8596.446mg/L | 3 |
| Carbomer | LC50 | 96 | Fish | 1684.686mg/L | 3 |
| stearic acid | EC50 | 48 | Crustacea | >4.8mg/L | 2 |
| stearic acid | EC50 | 504 | Crustacea | >0.22mg/L | 2 |
| stearic acid | NOEC | 504 | Crustacea | >0.22mg/L | 2 |
| stearic acid | EC50 | 72 | Algae or other aquatic plants | >0.9mg/L | 2 |
| diphenyl phenol | EC50 | 48 | Crustacea | 0.159mg/L | 2 |
| diphenyl phenol | EC50 | 48 | Crustacea | 8.48mg/L | 2 |
| glycerol | EC0 | 24 | Crustacea | >500mg/L | 1 |
| glycerol | EC50 | 96 | Algae or other aquatic plants | 77712.039mg/L | 3 |
| glycerol | LC50 | 96 | Fish | >11mg/L | 2 |
| 1,2-benzisothiazoline-3-one | EC50 | 48 | Crustacea | 0.062mg/L | 4 |
| 1,2-benzisothiazoline-3-one | EC50 | 48 | Crustacea | 4.4mg/L | 4 |
| 1,2-benzisothiazoline-3-one | LC50 | 96 | Fish | 1.6mg/L | 4 |
| triethanolamine | LC50 | 96 | Fish | 0.0011807mg/L | 4 |
| triethanolamine | EC10 | 96 | Algae or other aquatic plants | 7.1mg/L | 1 |
| triethanolamine | EC50 | 48 | Crustacea | 609.88mg/L | 2 |
| triethanolamine | NOEC | 504 | Crustacea | 16mg/L | 2 |
| triethanolamine | EC50 | 72 | Algae or other aquatic plants | >107- <260mg/L | 2 |
| | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - | | I Suite V3.12 - | | |

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - 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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

The effects of similar substances have been characterised.

For Alcohol Ethoxylates (AE):

Environmental Fate: AEs are commonly found in surfactants, are generally biodegradable, and do not persist for any substantial period in the environment. They are not usually present at concentrations which might produce problems.

Terrestrial Fate: The adsorption of AEs in soil decreases as pH increases. These substances will be broken down by microorganisms in the presence of oxygen.

Breakdown in the Environment (Biodegradation): AE with a typical alkyl chain, (e.g., C12 to C15), will normally reach more than 60% degradation in standardized tests for ready biodegradability. However, the presence of longer chain ethylene oxide components may reduce the ability of microorganisms to break the substance down. Branched AEs degrade slower than linear AEs. These substances are rapidly degraded by oxygen dependent microorganisms.

For Mixed Terphenyls and Quaterphenyls:

Environmental Fate: Environmental fate of these substances is expected to be focused primarily in the soil and sediment compartments.

Terrestrial Fate: These chemicals are expected to extensively degrade. Half-lives in soil range between 8-12 weeks. Mixed terphenyls and quaterphenyls are solid and waxy at room temperature and possess exceedingly low vapor pressures. Waxiness increases as vapor pressure decreases and molecular weight increases.

Aquatic Fate: All water solubility values for mixed terphenyls, its isomeric components and the quaterphenyls, establish this category of chemicals as possessing very low water solubility. None of these chemicals are readily hydrolysable; all have exceedingly low water solubility characteristics, and would be expected to undergo limited photolysis in the environment.

Ecotoxicity: Mixed terphenyls biodegrade slowly in the environment and are slightly toxic to Daphnia magna water fleas, rainbow trout and fathead minnow.

For Aluminium and its Compunds and Salts:

Environmental Fate - As an element, aluminium cannot be degraded in the environment, but may undergo various precipitation or ligand exchange reactions. Aluminium in compounds has only one oxidation state (+3), and would not undergo oxidation-reduction reactions under environmental conditions. Aluminium can be complexed by various ligands present in the environment (e.g., fulvic and humic acids). The solubility of aluminium in the environment will depend on the ligands present and the pH.

Atmospheric Fate: Air Quality Standards: none available.

Aquatic Fate: The hydrated aluminium ion undergoes hydrolysis. The speciation of aluminium in water is pH dependent. The hydrated trivalent aluminium ion is the predominant form at pH levels below 4.

For Amorphous Silica: Amorphous silica is chemically and biologically inert. It is not biodegradable.

Aquatic Fate: Due to its insolubility in water there is a separation at every filtration and sedimentation process. On a global scale, the level of man-made synthetic amorphous silicas (SAS) represents up to 2.4% of the dissolved silica naturally present in the aquatic environment and untreated SAS have a relatively low water solubility and an extremely low vapour pressure. Biodegradability in sewage treatment plants or in surface water is not applicable to inorganic substances like SAS.

Terrestrial Fate: Crystalline and/or amorphous silicas are common on the earth in soils and sediments, and in living organisms (e.g. diatoms), but only the dissolved form is bioavailable. On the basis of these properties it is expected that SAS released into the environment will be distributed mainly into soil/sediment. Surface treated silica will be wetted then adsorbed onto soils and sediments.

For Silica:

Environmental Fate: Most documentation on the fate of silica in the environment concerns dissolved silica, in the aquatic environment, regardless of origin, (man-made or natural), or structure, (crystalline or amorphous).

Terrestrial Fate: Silicon makes up 25.7% of the Earth � s crust, by weight, and is the second most abundant element, being exceeded only by oxygen. Silicon is not found free in nature, but occurs chiefly as the oxide and as silicates. Once released into the environment, no distinction can be made between the initial forms of silica.

Aquatic Fate: At normal environmental pH, dissolved silica exists exclusively as monosilicic acid. At pH 9.4, amorphous silica is highly soluble in water. Crystalline silica, in the form of quartz, has low solubility in water. Silicic acid plays an important role in the biological/geological/chemical cycle of silicon, especially in the ocean.

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|--------------|-------------------------|------------------|
| water | LOW | LOW |
| Carbomer | LOW | LOW |
| stearic acid | LOW | LOW |

| glycerol | LOW | LOW |
|-----------------|-----|-----|
| triethanolamine | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|-----------------|-----------------------|
| water | LOW (LogKOW = -1.38) |
| Carbomer | LOW (LogKOW = 0.4415) |
| stearic acid | LOW (LogKOW = 8.23) |
| glycerol | LOW (LogKOW = -1.76) |
| triethanolamine | LOW (BCF = 3.9) |

Mobility in soil

| Ingredient | Mobility |
|-----------------|--------------------|
| water | LOW (KOC = 14.3) |
| Carbomer | HIGH (KOC = 1.201) |
| stearic acid | LOW (KOC = 11670) |
| glycerol | HIGH (KOC = 1) |
| triethanolamine | LOW (KOC = 10) |

SECTION 13 DISPOSAL CONSIDERATIONS

| Waste treatment methods | |
|---------------------------------|--|
| Product / Packaging disposal | Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: 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. Where possible retain label warnings and SDS and observe all notices pertaining to the product. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill. |

SECTION 14 TRANSPORT INFORMATION

Marine Pollutant

HAZCHEM

Labels Required

NO 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

WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

TETRASODIUM N,N-BIS(CARBOXYMETHYL)-L-GLUTAMATE(51981-21-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

CARBOMER(9007-20-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

METHYL COCOATE(61788-59-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

ISODECANOL PROPOXYLATED(166736-08-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS Australia Inventory of Chemical Substances (AICS)

STEARIC ACID(57-11-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

| JOJOBA OIL(61789-91-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS | |
|---|---|
| ustralia Inventory of Chemical Substances (AICS) | |
| D-ALPHA-TOCOPHEROL ACETATE(58-95-7) IS FOUND ON THE FOLLOWING REGULA | TORY LISTS |
| Australia Inventory of Chemical Substances (AICS) | |
| LANOLIN, ETHOXYLATED(8039-09-6) IS FOUND ON THE FOLLOWING REGULATORY L | ISTS |
| Australia Inventory of Chemical Substances (AICS) | |
| DIPHENYL PHENOL(6093-03-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS | |
| Australia Inventory of Chemical Substances (AICS) | |
| GLYCEROL(56-81-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS | |
| Australia Exposure Standards | Australia Inventory of Chemical Substances (AICS) |
| 4,5-DICHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE(26542-23-4) IS FOUND ON THE FO | LLOWING REGULATORY LISTS |
| Australia Inventory of Chemical Substances (AICS) | |
| 1,2-BENZISOTHIAZOLINE-3-ONE(2634-33-5) IS FOUND ON THE FOLLOWING REGULA | FORY LISTS |
| Australia Hazardous Substances Information System - Consolidated Lists | Australia Inventory of Chemical Substances (AICS) |
| | |

TRIETHANOLAMINE(102-71-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS) International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

PUMICE(1332-09-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

| National Inventory | Status |
|----------------------------------|---|
| Australia - AICS | Y |
| Canada - DSL | N (isodecanol propoxylated; 4,5-dichloro-2-methyl-4-isothiazolin-3-one; diphenyl phenol) |
| Canada - NDSL | N (D-alpha-tocopherol acetate; isodecanol propoxylated; 4,5-dichloro-2-methyl-4-isothiazolin-3-one; 1,2-benzisothiazoline-3-one; glycerol; triethanolamine; water; tetrasodium N,N-bis(carboxymethyl)-L-glutamate; lanolin, ethoxylated; methyl cocoate; Carbomer; diphenyl phenol; stearic acid; jojoba oil; pumice) |
| China - IECSC | N (4,5-dichloro-2-methyl-4-isothiazolin-3-one; tetrasodium N,N-bis(carboxymethyl)-L-glutamate; diphenyl phenol) |
| Europe - EINEC / ELINCS / NLP | N (isodecanol propoxylated; 4,5-dichloro-2-methyl-4-isothiazolin-3-one; lanolin, ethoxylated; Carbomer; pumice) |
| Japan - ENCS | N (isodecanol propoxylated; 4,5-dichloro-2-methyl-4-isothiazolin-3-one; water; tetrasodium N,N-bis(carboxymethyl)-L-glutamate; diphenyl phenol; jojoba oil; pumice) |
| Korea - KECI | N (4,5-dichloro-2-methyl-4-isothiazolin-3-one; diphenyl phenol; jojoba oil) |
| New Zealand - NZIoC | N (4,5-dichloro-2-methyl-4-isothiazolin-3-one; diphenyl phenol) |
| Philippines - PICCS | N (isodecanol propoxylated; 4,5-dichloro-2-methyl-4-isothiazolin-3-one) |
| USA - TSCA | N (4,5-dichloro-2-methyl-4-isothiazolin-3-one; diphenyl phenol) |
| Legend: | Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

| Name | CAS No |
|----------------------|--|
| Carbomer | 54182-57-9, 76050-42-5, 9003-01-4, 9007-16-3, 9007-17-4, 9007-20-9, 9062-04-8 |
| jojoba oil | 61789-91-1, 90045-98-0 |
| lanolin, ethoxylated | 61790-81-6, 8039-09-6 |
| diphenyl phenol | 2432-11-3, 6093-03-4 |
| glycerol | 29796-42-7, 30049-52-6, 37228-54-9, 56-81-5, 75398-78-6, 78630-16-7, 8013-25-0 |

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

A list of reference resources used to assist the committee may be found at: www.chemwatch.net

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 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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