Auto Klene Magic Carpet

Auto Klene Solutions Chemwatch: 5199-18 Version No: 2.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 10/12/2015 Print Date: 05/04/2016 Initial Date: Available

S.GHS.AUS.EN

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

| Product Identifier | |
|-----------------------------------|--|
| Product name | Auto Klene Magic Carpet |
| Synonyms | Not Available |
| Other means of identification | Not Available |
| Relevant identified uses of th | ne substance or mixture and uses advised against |
| Relevant identified uses | Carpet Upholstery Cleaning liquid removes grease, oil, and dust soilings as well as traffic film of all textile coverings. |
| Details of the supplier of the | safety data sheet |
| Registered company name | Auto Klene Solutions |
| Address | 1/83 Merrindale Drive VIC Croydon 3136 Australia |
| Telephone | +61 3 8761 1900 |
| Fax | +61 3 8761 1955 |
| Website | https://www.autoklene.com/msds/ |
| Email | Not Available |
| Emergency telephone number | er T |
| Association / Organisation | Not Available |
| Emergency telephone numbers | 131 126 (Poisons Information Centre) |
| Other emergency telephone numbers | 0408 406 968 (Mark Adams mobile) |

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

CHEMWATCH HAZARD RATINGS

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

| Poisons Schedule | S5 |
|-----------------------|--|
| [1] Classification | Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |
| I ahal alaments | |

GHS label elements



SIGNAL WORD

Hazard statement(s)

H315

Causes skin irritation.

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| H319 | Causes serious eye irritation. | | | |
|------------------------------|--|--|--|--|
| H412 | Harmful to aquatic life with long lasting effects. | | | |
| Precautionary statement(s) F | Prevention | | | |
| P273 | Avoid release to the environment. | | | |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. | | | |
| Precautionary statement(s) F | Precautionary statement(s) Response | | | |
| P362 | Take off contaminated clothing and wash before reuse. | | | |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | | | |
| P337+P313 | If eye irritation persists: Get medical advice/attention. | | | |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. | | | |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. | | | |
| | | | | |

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

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 |
|-----------|-----------|---------------------------------|
| 7601-54-9 | <10 | trisodium phosphate |
| 9002-92-0 | <10 | lauryl alcohol, ethoxylated |
| 111-76-2 | <5 | ethylene glycol monobutyl ether |
| 7732-18-5 | >60 | <u>water</u> |

SECTION 4 FIRST AID MEASURES

| Descri | ption | of | first | aid | measures |
|--------|-------|----|-------|-----|----------|
| | | | | | |

| Eye Contact | If this product comes in contact with the eyes: ► 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 | 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 | ▶ 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.

For acute or short term repeated exposures to ethylene glycol:

- Early treatment of ingestion is important. Ensure emesis is satisfactory.
- ▶Test and correct for metabolic acidosis and hypocalcaemia.
- Apply sustained diuresis when possible with hypertonic mannitol.
- ►Evaluate renal status and begin haemodialysis if indicated. [I.L.O]
- Rapid absorption is an indication that emesis or lavage is effective only in the first few hours. Cathartics and charcoal are generally not effective.
- ▶Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner. Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.
- Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.
- Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.
- Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

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[Ellenhorn and Barceloux: Medical Toxicology]

It has been suggested that there is a need for establishing a new biological exposure limit before a workshift that is clearly below 100 mmol ethoxy-acetic acids per mole creatinine in morning urine of people occupationally exposed to ethylene glycol ethers. This arises from the finding that an increase in urinary stones may be associated with such exposures. Laitinen J., et al: Occupational & Environmental Medicine 1996; 53, 595-600

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances. In such an event consider: Moam.

Indry chemical powder.
 In carbon dioxide.

Special hazards arising from the substrate or mixture

| Fire Incompatibility | None known. |
|--------------------------|---|
| Advice for firefighters | |
| Fire Fighting | ▶ 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. ▶ 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. |
| Fire/Explosion Hazard | ▶ The material is not readily combustible under normal conditions. ▶ However, it will break down under fire conditions and the organic component may burn. ▶ Not considered to be a significant fire risk. ▶ Heat may cause expansion or decomposition with violent rupture of containers. ▶ Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). ▶ May emit acrid smoke. Decomposes on heating and produces toxic fumes of:, carbon dioxide (CO2), other pyrolysis products typical of burning organic material May emit poisonous fumes. May emit corrosive fumes. |

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. | | | |
| Major Spills | Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. | | | |

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

SECTION 7 HANDLING AND STORAGE

| Precautions for safe handling | |
|-------------------------------|--|
| Safe handling | 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. DO NOT allow clothing wet with material to stay in contact with skin |
| Other information | Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS. |

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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 Avoid contamination of water, foodstuffs, feed or seed.

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 | ethylene glycol monobutyl ether | 2-Butoxyethanol | 96.9mg/m3 / 20 ppm | 242 mg/m3 / 50 ppm | Not Available | Sk |

EMERGENCY LIMITS

| Ingredient | Material name | | TEEL-1 | TEEL-2 | TEEL-3 | |
|------------------------------------|---|----------------|---------|-----------|------------|--|
| trisodium phosphate | Sodium phosphate, tribasic; (Trisodium phosphate) | | 5 mg/m3 | 250 mg/m3 | 1500 mg/m3 | |
| lauryl alcohol, ethoxylated | Brij-35; (alpha-Dodecyl-omega-hydroxypoly(oxyethylene)) | | 1 mg/m3 | 11 mg/m3 | 200 mg/m3 | |
| ethylene glycol monobutyl ether | Butoxyethanol, 2-; (Glycol ether EB) | | 20 ppm | 20 ppm | 700 ppm | |
| Ingredient | Original IDLH Revised | | IDLH | | | |
| trisodium phosphate | Not Available Not Avail | | ilable | | | |
| lauryl alcohol, ethoxylated | Not Available Not Available | | ilable | | | |
| ethylene glycol monobutyl ether | 700 ppm | 700 [Unch] ppm | | | | |
| water | Not Available | Not Avail | able | | | |

Exposure controls

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

Appropriate engineering controls

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 chamical or contaminant in use.

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.

Personal protection











- ▶ Safety glasses with side shields.
- ▶ Chemical goggles

Eye and face protection

▶ 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.

Skin protection

See Hand protection below

- ▶ Wear chemical protective gloves, e.g. PVC.
 - ▶ Wear safety footwear or safety gumboots, e.g. Rubber

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.

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.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

Hands/feet protection

- ▶ frequency and duration of contact, ▶
- chemical resistance of glove material,
- ▶ glove thickness and
- ▶ dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- ▶ When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- ▶ When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

Body protection

See Other protection below

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| ▶ Overalls. ▶ P.V.C. apron. ▶ Barrier cream. ▶ Skin cleansing cream. ▶ Eye wash unit. |
|---|
| Not Available |
| |

Recommended material(s)

Respiratory protection

GLOVE SELECTION INDEX

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

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the

The effect(s) of the following substance(s) are taken into account in the computer-

"Exposure Standard" (or ES), respiratory protection is required.

generated selection:

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

Auto Klene Extraction Liquid varies with Type of filter.

| PE/EVAL/PE | С |
|------------|---|
| PVA | С |
| PVC | С |
| SARANEX-23 | С |
| VITON | С |

50+ x ES - Air-line** -

| Material | |
|-------------------|--|
| BUTYL | |
| NAT+NEOPR+NITRILE | |
| NATURAL RUBBER | |
| NEOPRENE | |
| NITRILE | |

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|---------------------------------------|--------------------------|-------------------------|----------------------------|
| up to 5 x ES | A-AUS / Class 1 P2 | - | A-PAPR-AUS / Class 1 P2 |
| up to 25 x ES | Air-line* | A-2 P2 | A-PAPR-2 P2 |
| up to 50 x ES | - | A-3 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)

A: Best Selection

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

^{*} CPI - Chemwatch Performance Index

B: Satisfactory; may degrade after 4 hours continuous immersion

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

^{*}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.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | Pale straw with slight blue fluroesence liquid with lavender odour; mixes with water. | | |
|--|---|---|----------------|
| Physical state | Liquid | Relative density (Water = 1) | 1.054 |
| Odour | Not Available | Partition coefficient n- octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Applicable |
| pH (as supplied) | ~12.2 | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | ~0 | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | ~100 | 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 |
| Ipper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Available |
| ower Explosive Limit. | Not Applicable | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | 2 @ 20 degC | Gas group | Not Available |
| 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

| Reactivity | See section 7 |
|------------------------------------|--|
| Chemical stability | ▶ 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 | Not normally a hazard due to non-volatile nature of product Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. | | | |
| Ingestion | Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting | | | |

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| Skin Contact | This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition One of the mechanisms of skin irritation caused by surfactants is considered to be denaturation of the proteins of skin. It has also been established that there is a connection between the potential of surfactants to denature protein in vitro and their effect on the skin. Nonionic surfactants do not carry any net charge and, therefore, they can only form hydrophobic bonds with proteins. For this reason, proteins are not deactivated by nonionic surfactants, and proteins with poor solubility are not solubilized by nonionic surfactants 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 su | itably protected. | | |
| Еуе | This material can cause eye irritation and damage in som Non-ionic surfactants can cause numbing of the cornea, Irritation varies depending on the duration of contact, the | which masks discomfort normally caused by other agents and leads to corneal injury. | | |
| Chronic | There is some evidence from animal testing that exposur | and may cause some concern following repeated or long-term occupational exposure. e to this material may result in toxic effects to the unborn baby. se cancer or mutations but there is not enough data to make an assessment. | | |
| | TOXICITY | IRRITATION | | |
| Auto Klene Extraction | | | | |
| Liquid | Not Available | Not Available | | |
| | TOXICITY | IRRITATION | | |
| trisodium phosphate | dermal (rat) LD50: >2000 mg/kgl Oral (rat) LD50: 7.4 gm/ kgl | - moderate* *[CCINFO - Monsant Eye (rabbit):(FSHA) Corrosive* scale of 8.0 | | |
| | Skin (rabbit):(FSHA) 3.3 on a | | | |
| | TOXICITY IRRITATION | | | |
| lauryl alcohol, ethoxylated | Dermal (rabbit) LD50: >2000 mg/kgg Oral (rat) LD50: 1000 mg/kgg Oral (rat) | Eye (rabbit): 0.75 mg/24h SEVERE Eye (rabbit): 100 mg Skin (rabbit): 500 mg/24h mild Skin (rabbit): 75 mg/24h mild | | |
| | | | | |
| ethylene glycol monobutyl ether | dermal (rat) LD50: >2000 mg/kg | * [Union Carbide] Eye (rabbit): 100 mg SEVERE | | |
| | Oral (rat) LD50: 250 mg/kg ¹ | Eye (rabbit): 100 mg/24h-moderate | | |
| | Of all (fat) ED30. 230 Hig/kg | Skin (rabbit): 500 mg, open; mild | | |
| | | IRRITATION | | |
| | TOXICITY | INMITATION | | |
| water | [2] | INMIANON | | |
| water Legend: | [2] Oral (rat) LD50: >90000 mg/kgNot Available | s - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified | | |

TRISODIUM PHOSPHATE

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

of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms withir 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.

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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

LAURYL ALCOHOL, ETHOXYLATED

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. 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.

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 material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

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For ethylene glycol monoalkyl ethers and their acetates (EGMAEs):

ETHYLENE GLYCOL MONOBUTYL ETHER

Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates.

EGMAEs are substrates for alcohol dehydrogenase isozyme ADH-3, which catalyzes the conversion of their terminal alcohols to aldehydes (which are transient metabolites). Further, rapid conversion of the aldehydes by aldehyde dehydrogenase produces alkoxyacetic acids, which are the predominant urinary

metabolites of mono substituted glycol ethers. **Acute Toxicity:** Oral LD50 values in rats for all category members range from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values increasing with decreasing molecular weight. Four to six hour acute inhalation toxicity studies were conducted for these chemicals in rats at the highest vapour concentrations practically

achievable. Values range from LC0 > 85 ppm (508 mg/m3) for EGHE, LC50 > 400ppm (2620 mg/m3) for EGBEA to LC50 > 2132 ppm (9061 mg/m3) for EGPE. No lethality was observed for any of these materials under these conditions.

Exposure of pregnant rats to ethylene glycol monobutyl ether (2-butoxyethanol) at 100 ppm or rabbits at 200 ppm during organogenesis resulted in maternal toxicity and embryotoxicity including a decreased number of viable implantations per litter. Slight foetoxicity in the form of poorly ossified or unossified skeletal elements was also apparent in rats. Teratogenic effects were not observed in other species.

At least one researcher has stated that the reproductive effects were less than that of other monoalkyl ethers of ethylene glycol.

Chronic exposure may cause anaemia, macrocytosis, abnormally large red cells and abnormal red cell fragility.

Exposure of male and female rats and mice for 14 weeks to 2 years produced a regenerative haemolytic anaemia and subsequent effects on the haemopoietic system in rats and mice. In addition, 2-butoxyethanol exposures caused increases in the incidence of neoplasms and nonneoplastic lesions (1). For ethylene glycol:

Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow. Following absorption, ethylene glycol is distributed throughout the body according to total body water. In

most mammalian species, including humans, ethylene glycol is initially metabolised by alcohol.

dehydrogenase to form glycolaldehyde, which is rapidly converted to glycolic acid and glyoxal by aldehyde oxidase and aldehyde dehydrogenase. These metabolites are oxidised to glyoxylate; glyoxylate may be further metabolised to formic acid, oxalic acid, and glycine. Breakdown of both glycine and formic acid can generate CO2, which is one of the major elimination products of ethylene glycol.

NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes. ** ASCC (NZ) SDS

WATER No significant acute toxicological data identified in literature search.

| Acute Toxicity | 0 | Carcinogenicity | |
|-----------------------------------|---|--------------------------|---|
| Skin Irritation/Corrosion | * | Reproductivity | |
| Serious Eye Damage/Irritation | J | STOT - Single Exposure | 0 |
| Respiratory or Skin sensitisation | Ŏ | STOT - Repeated Exposure | 0 |

Legend:

Ž

Aspiration Hazard

Data available but does not fill the criteria for classification

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Data required to make classification available

- Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

0

Mutagenicity

Toxicity

| Ingredient | Endpoint | Test Duration (hr) | Species | Value | Source |
|-----------------------------|----------|--------------------|-------------------------------|----------|--------|
| trisodium phosphate | LC50 | 96 | Fish | 28.5mg/L | 4 |
| trisodium phosphate | EC50 | 48 | Crustacea | >100mg/L | 2 |
| trisodium phosphate | EC50 | 48 | Algae or other aquatic plants | 300mg/L | 2 |
| trisodium phosphate | EC50 | 72 | Algae or other aquatic plants | >100mg/L | 2 |
| trisodium phosphate | NOEC | 72 | Algae or other aquatic plants | >100mg/L | 2 |
| lauryl alcohol, ethoxylated | BCF | 72 | Fish | 1mg/L | 4 |
| lauryl alcohol, ethoxylated | LC50 | 96 | Fish | 1.5mg/L | 4 |

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| lauryl alcohol, ethoxylated | EC50 | 504 | Crustacea | 0.46mg/L | 5 |
|---------------------------------|--|-----|-------------------------------|--------------|---|
| lauryl alcohol, ethoxylated | NOEC | 504 | Crustacea | 0.24mg/L | 5 |
| lauryl alcohol, ethoxylated | EC50 | 72 | Algae or other aquatic plants | 2.05963mg/L | 2 |
| ethylene glycol monobutyl ether | EC50 | 384 | Crustacea | 51.539mg/L | 3 |
| ethylene glycol monobutyl ether | LC50 | 96 | Fish | 222.042mg/L | 3 |
| ethylene glycol monobutyl ether | EC50 | 48 | Crustacea | 164mg/L | 2 |
| ethylene glycol monobutyl ether | NOEC | 168 | Crustacea | 56mg/L | 2 |
| ethylene glycol monobutyl ether | EC50 | 96 | Algae or other aquatic plants | 720mg/L | 2 |
| 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 |
| 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. DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|---------------------------------|---------------------------|-----------------------------|
| trisodium phosphate | HIGH | HIGH |
| lauryl alcohol, ethoxylated | LOW | LOW |
| ethylene glycol monobutyl ether | LOW (Half-life = 56 days) | LOW (Half-life = 1.37 days) |
| water | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------------------------------|------------------------|
| trisodium phosphate | LOW (LogKOW = -0.7699) |
| lauryl alcohol, ethoxylated | LOW (LogKOW = 3.6722) |
| ethylene glycol monobutyl ether | LOW (BCF = 2.51) |
| water | LOW (LogKOW = -1.38) |

Mobility in soil

| Ingredient | Mobility |
|------------------------------------|------------------|
| trisodium phosphate | HIGH (KOC = 1) |
| lauryl alcohol, ethoxylated | LOW (KOC = 10) |
| ethylene glycol monobutyl ether | HIGH (KOC = 1) |
| water | LOW (KOC = 14.3) |

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

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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.

A Hierarchy of Controls seems to be common - the user should investigate:

▶ Reduction ▶

Reuse

▶ Recycling

▶ Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type.

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

▶ DO NOT allow wash water from cleaning or process equipment to enter drains.

- ▶ It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority.
- ▶ Recycle wherever possible
- ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- ▶ Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Product / Packaging

disposa

Labels Required

Marine Pollutant NO

HAZCHEM Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

TRISODIUM PHOSPHATE(7601-54-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

LAURYL ALCOHOL, ETHOXYLATED(9002-92-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

ETHYLENE GLYCOL MONOBUTYL ETHER(111-76-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

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

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

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| Australia Inventory of Chemical Substances (AICS) | | |
|---|---|--|
| National Inventory | Status | |
| Australia - AICS | Y | |
| Canada - DSL | Y | |
| Canada - NDSL | N (lauryl alcohol, ethoxylated; trisodium phosphate; water; ethylene glycol monobutyl ether) | |
| China - IECSC | Y | |
| Europe - EINEC / ELINCS / NLP | Y | |
| Japan - ENCS | N (lauryl alcohol, ethoxylated; trisodium phosphate; water) | |
| Korea - KECI | Y | |
| New Zealand - NZIoC | Y | |
| Philippines - PICCS | Y | |
| USA - TSCA | Y | |
| 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

| mg. care man man pro case man pro | | |
|-----------------------------------|-----------------------|--|
| Name | CAS No | |
| trisodium phosphate | 7601-54-9, 96337-98-3 | |
| lauryl alcohol, ethoxylated | 12789-47-8, 9002-92-0 | |

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.

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.

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