


## 1. Identification

Product identifier	Lemon Wash	
Recommended use of the chemical and restrictions on use	A general purpose cleaner, formulated to provide rapid penetration and removal of soils from surfaces at low concentrations.	
Details of manufacturer or importer	Company Name	Chemwell Pty Ltd ABN 94 155 544 040
	Address	3 Clive St, Springvale, VIC, 3171
	Phone	03 9558 5678
	Email	<a href="mailto:chemwell@chemwell.com.au">chemwell@chemwell.com.au</a>
	Website	<a href="http://www.chemwell.com.au">www.chemwell.com.au</a>
Emergency phone number	Police, Fire & Ambulance	000
	Poisons Information Centre	13 11 26

## 2. Hazard(s) Identification

This material is hazardous according to criteria of Safe Work Australia.

NOT considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

Classification of the hazardous chemical	Acute Aquatic Toxicity 2 Eye Damage/Irritation 2A Skin Corrosion/Irritation 3 Skin Sensitization 1
Hazard symbols	
Signal word(s)	Warning
Hazard statement(s)	H316 - Causes mild skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H401 - Toxic to aquatic life

Precautionary statement(s)	Prevention	P261 - Avoid breathing dust/fumes/gas/mist/vapours/spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P264 - Wash thoroughly after handling. P273 - Avoid release to the environment.
	Response	P332+313 - If skin irritation occurs: Get medical advice/attention. P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+313 - If eye irritation persists get medical advice/attention. P302+352 - IF ON SKIN: Wash with plenty of water. P333+313 - If skin irritation or a rash occurs: Get medical advice/attention. P321 - Specific treatment (see ... on this label). P363 - Wash contaminated clothing before reuse.
	Storage	
	Disposal	P501 - Dispose of contents/container to in accordance with local regulation.

### 3. Composition and Information on Ingredients

Name	Proportion
Polyethylene Glycol Dodecyl Ether	<10%
Fragrance Lemon	<10%
2-Butoxyethanol	<10%
Sodium Lauryl Ether Sulfate 25% solution	<10%

Disclosure of ingredient names is not required by the WHS Regulations for those ingredients that meet only physicochemical and/or environmental hazard classifications, or for nonhazardous ingredients.

There is no requirement to disclose the identity of ingredients for the following GHS health hazard categories because they fall outside the scope of the WHS Regulations:

- Acute toxicity – Category 5 (oral, dermal and inhalation)
- Skin; corrosion / irritation – Category 3
- Serious eye damage / eye irritation – Category 2B
- Aspiration hazard – Category 2
- Aquatic toxicity (all categories)
- Flammable gas – Category 2
- Ozone depletion.

#### 4. First Aid Measures

Swallowed	Immediately rinse mouth out thoroughly with water and give water to drink. DO NOT induce vomiting. Seek medical advice.
Eye	Immediately irrigate eyes with large amounts of water for at least 15 minutes with eyelids held open. Take care not to rinse contaminated water into the non-affected eye. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. Seek medical advice.
Skin	Immediately wash affected area with large amounts of water. Remove any contaminated clothing and wash before re-use. Seek medical advice if pain or irritation persists.
Inhaled	For all but minor symptoms seek medical advice. Not considered a normal feature of use.
First Aid Facilities	Standard first aid facilities.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.

#### 5. Fire Fighting Measures

Suitable extinguishing equipment	Use water spray, alcohol-resistant foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards arising from the chemical	<p>During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Hazardous products of combustion for each ingredient are:</p> <p>Polyethylene Glycol Dodecyl Ether: When heated to decomposition it emits acrid smoke and irritating fumes.</p> <p>Fragrance Lemon: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed.</p> <p>2-Butoxyethanol: Combustion products may include but are not limited to: Carbon monoxide. Carbon dioxide.</p> <p>Sodium Lauryl Ether Sulfate 25% solution: Decomposition products include: carbon dioxide (CO<sub>2</sub>) and sulfur oxides (SO<sub>x</sub>).</p>
Special protective equipment and precautions for fire fighters	<p>Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant section.</p> <p>Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.</p> <p>HazChem (EAC): 2X</p>

## 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	<p>Personnel involved in the clean-up should wear protective clothing as listed in section 8. Use clean, non-sparking tools and equipment. Avoid breathing vapours and contact with skin and eyes. Remove contaminated clothing and wash before reuse.</p> <p>Eliminate all sources of ignition. Increase ventilation.</p> <p>Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Clean up all spills immediately. Clear area of all unnecessary personnel.</p>
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up	<p>Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. This may involve tipping container on its side. Clean up all spills immediately. Clear area of all unnecessary personnel. If safe to do so repack leaking container into new container.</p> <p>Place inert, absorbent, non-combustible material onto spillage. Wipe up. Place in a suitable, labelled container for waste disposal.</p>

## 7. Handling and Storage

Handling	<p>Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Check Section 8 for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.</p>
Storage	<p>Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Containers should be protected against any form of physical damage. Have appropriate fire extinguishers available in and near storage area. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10.</p>

## 8. Exposure Controls and Personal Protection

Exposure standards	<p>No value assigned for this specific material by Safe Work Australia. However, Exposure Standard(s) for ingredient(s) are:</p> <p>Polyethylene Glycol Dodecyl Ether:</p> <p>We are not aware of any exposure standards having been entered for this product.</p>
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	<p>Fragrance Lemon: Exposure limits have not been established by SWA for any of the significant ingredients in this product.</p> <p>2-Butoxyethanol: 96.9 mg/m<sup>3</sup> AU OEL TWA 242 mg/m<sup>3</sup> AU OEL STEL</p> <p>Sodium Lauryl Ether Sulfate 25% solution: No Data Available</p>
Biological limits	<p>Biological limits for ingredient(s) are:</p> <p>Polyethylene Glycol Dodecyl Ether: No information available on biological limit values for this product.</p> <p>Fragrance Lemon: No information available on biological limit values for this product.</p> <p>2-Butoxyethanol: No biological limit values have been entered for this product.</p> <p>Sodium Lauryl Ether Sulfate 25% solution: No information available on biological limit values for this product.</p>
Engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. 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.</p>
Personal protective equipment (PPE)	<p>Safety glasses with side shields. Chemical protective gloves.</p>

## 9. Physical and Chemical Properties

Appearance (physical state, colour etc.)	A clear, pale orange liquid
Odour	Citrus fragrance.
Odour threshold	Not specified
pH	8.3-8.7
Melting point/freezing point	Not specified

Initial boiling point and boiling range	Not specified
Flash point	Not tested
Evaporation rate	Not specified
Flammability (solid, gas)	Not specified
Upper/lower flammability or explosive limits	Not specified
Vapour pressure	Not specified
Vapour density	Not specified
Relative density	Not specified
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Not specified
Auto-ignition temperature	Not specified
Decomposition temperature	Not specified
Viscosity	Not specified

## 10. Stability and Reactivity

Reactivity	No dangerous reaction known under conditions of normal use.
Chemical stability	Stable under normal ambient storage and handling conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid	No data available.
Incompatible materials	No data available.
Hazardous decomposition products	See section 5.

## 11. Toxicological Information

Acute Toxicity, Dermal	Not Applicable
Acute Toxicity, Dusts And Mists	Not Applicable
Acute Toxicity, Gases	Not Applicable
Acute Toxicity, Inhalation	Not Applicable
Acute Toxicity, Oral	Not Applicable
Acute Toxicity, Vapours	Not Applicable
Skin Corrosion/Irritation	Category 3
Eye Damage/Irritation	Category 2A
Respiratory Sensitization	Not Applicable
Skin Sensitization	Category 1

Germ Cell Mutagens	Not Applicable
Carcinogenicity	Not Applicable
Reproductive Toxicity	Not Applicable
Specific Target Organ Toxicity RE	Not Applicable
Specific Target Organ Toxicity SE	Not Applicable
Aspiration Hazard	Not Applicable

#### **Toxicological Information for Polyethylene Glycol Dodecyl Ether**

**Acute toxicity** Oral, mouse: LD50 = 1170 mg/kg (data on Lauryl Alcohol EO (7))

**Dermal:** The toxicity of polyoxyethylene lauryl ether to the skin was determined by the closed patch test. It was harmful to the blood vessel of the dermal layer but had little effect on the epidermal layer. (1)

**Eye** No information available. May cause severe eye irritation.

**Ingestion** No adverse effect, but large amount may cause nausea and vomiting.

**Inhalation** No information available.

**Skin** Contact with skin may cause irritation.

**Sensitization** No information available.

**Mutagenicity** No information available.

**Carcinogenicity** No evidence of carcinogenic effects. Not listed on IARC.

**Reproductive** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration** No information available.

#### **Toxicological Information for Fragrance Lemon**

Local Effects: <h3>

Target Organs: <h3>There is no data to hand indicating any particular target organs.

D-limonene is Classed by SWA as a potential sensitiser by skin contact.

#### **Toxicological Information for 2-Butoxyethanol**

##### **Acute toxicity**

**Ingestion** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. In animals, effects have been reported on the following organs: blood (haemolysis) and secondary effects on the kidney and liver. Human red blood cells have been shown to be significantly less sensitive to haemolysis than those of rodents and rabbits. Massive ingestion of ethylene glycol monobutyl ether (attempted suicides) may produce metabolic acidosis and subsequent secondary effects such as haemolysis, central nervous system and kidney effects.

LD50, rat 1,300 mg/kg

LD50, Guinea pig, 1,400 mg/kg

**Dermal** Prolonged skin contact to animals which are less sensitive to haemolysis, as are humans, did not result in the absorption of harmful amounts.

LD50, guinea pig > 2,000 mg/kg

**Inhalation** Excessive exposure may cause irritation to upper respiratory tract (nose and throat). In humans, symptoms may include: Headache. In animals, effects have been reported on the following organs: blood (haemolysis) and secondary effects on the kidney and liver. Human red blood cells have been shown to be significantly less sensitive to haemolysis than those of rodents and rabbits.

LC0, 1 h, Vapour, Guinea pig > 3.1 mg/l No deaths occurred at this concentration.

**Eye** May cause severe eye irritation. May cause moderate corneal injury. Effects may be slow to heal. Vapour may cause eye irritation experienced as mild discomfort and redness.

**Skin** Brief contact may cause slight skin irritation with local redness. Repeated exposure may cause irritation, even a burn. May cause more severe response on covered skin (under clothing, gloves).

**Sensitization** Skin: Did not cause allergic skin reactions when tested in humans. Did not cause allergic skin reactions when tested in guinea pigs.

**Respiratory:** No relevant data found.

**Chronic Toxicity & Carcinogenicity** In long-term animal studies with ethylene glycol butyl ether, small but statistically significant increases in tumours were observed in mice but not rats. The effects are not believed to be relevant to humans. If the material is handled in accordance with proper industrial handling procedures, exposures should not pose a carcinogenic risk to man.

**Developmental** Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive** In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**Genetic** In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were negative.

**STOT - repeated exposure** In animals, effects have been reported on the following organs: blood (haemolysis) and secondary effects on the kidney and liver. Human red blood cells have been shown to be significantly less sensitive to haemolysis than those of rodents and rabbits.

**Aspiration** Based on physical properties, not likely to be an aspiration hazard.

#### **Toxicological Information for Sodium Lauryl Ether Sulfate 25% solution**

##### **General Information**

No Data Available

##### **Ingestion**

This product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

##### **Inhalation**

Product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

##### **Skin Irritant**

Product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

##### **Eye Irritant**

This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.



**Carcinogen Category**

No Data Available

**12. Ecological Information**

Acute Aquatic Toxicity	Category 2
Chronic Aquatic Toxicity	Not Applicable

**Ecological Information for Water**

None specified.

**Ecological Information for Polyethylene Glycol Dodecyl Ether****Toxicity**

Toxic to aquatic life.

**Persistence and degradability**

BOD: AEROBIC: Dodecyl alcohol, ethoxylated, present at 30 mg/L, reached 74% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 100 mg/L in the Japanese MITI test. Dodecyl alcohol, ethoxylated, present at 2-5 mg/L, exhibited mean values of 74, 77 and 84% of its theoretical BOD in 30 days using an activated sludge inoculum at www mg/L in the Closed Bottle test. (1)

COD: Not available

**Bio accumulative/ Bioconcentration potential**

An estimated BCF of 81 was calculated in fish for dodecyl alcohol, ethoxylated(SRC), using an estimated log Kow of 3.40 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is moderate (SRC). (1)

**Mobility in soil**

The estimated Koc value of 150 of dodecyl alcohol, ethoxylated suggests it is expected to have high mobility in soil (SRC). (1)

**Other adverse effects**

Environmental fate: Do NOT allow product to enter waterways, drains or sewers.

This material and its containers must be disposed of hazardous waste.

**Ecological Information for Fragrance Lemon**

Insufficient data to be sure of status.

**Ecological Information for 2-Butoxyethanol****Toxicity**

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

**Fish Acute & Prolonged Toxicity** LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 h: 1,474 mg/l

**Aquatic Invertebrate Acute Toxicity** EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 1,550 mg/l

**Aquatic Plant Toxicity** EbC50, Pseudokirchneriella subcapitata (green algae), static test, biomass growth inhibition, 74 h: 911 mg/l

**Toxicity to Micro-organisms** IC50; Bacteria: > 1,000 mg/l

**Fish Chronic Toxicity Value (ChV)** Danio rerio (zebra fish), semi-static test, 21 d, reproduction, NOEC: 100 mg/l

**Persistence and degradability**

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches >70% mineralisation in OECD test(s) for inherent biodegradability).

**OECD Biodegradation Tests:**

**Biodegradation** 90.40%

**Exposure Time** 28 d

**Method** OECD 301B Test

**10 Day Window** pass

**Bioaccumulative potential**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow <3).

**Partition coefficient, n-octanol/water (log Pow):** 0.81 Measured

**Mobility in soil**

**Mobility in soil:** Potential for mobility in soil is high (Koc between 50 and 150).

**Partition coefficient, soil organic carbon/water (Koc):** 67 Estimated

**Henry's Law Constant (H):** 1.60E-06 atm\*m3/mole Measured

**Other adverse effects**

No information provided.

**Ecological Information for Sodium Lauryl Ether Sulfate 25% solution**

**Ecotoxicity** No ecological information available for this product.

**Persistence/Degradability** No information available on persistence/degradability for this product.

**Mobility** No information available on mobility for this product.

**Environmental Fate** Avoid contaminating waterways, drains and sewers.

**Bioaccumulation Potential** No information available on bioaccumulation for this product.

**Environmental Impact** No Data Available

**Ecological Information for Ethyl Alcohol**

Avoid contaminating waterways.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

**Ecological Information for Color Orange**

None specified.

### 13. Disposal considerations

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

### 14. Transport Information

Not considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

UN Number	Not applicable
Proper shipping name or Technical Name	Not Applicable
Transport hazard class	
Packing Group	
Environmental hazards for Transport Purposes	Classified as having an acute aquatic toxicity.
Special Precautions for user	None specified
Additional Information	None specified
Hazchem or Emergency Action Code	2X

### 15. Regulatory Information

No information in this section.

### 16. Other information

Date of Preparation:

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