


1. Identification

Product identifier	Window Cleaner Q.C.	
Recommended use of the chemical and restrictions on use	A high performance window cleaner for use on all glass surfaces. It removes grime and finger prints off window and mirror surfaces, leaving them clean and streak free.	
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	chemwell@chemwell.com.au
	Website	www.chemwell.com.au
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 Toxicity, Inhalation 4 Acute Toxicity, Oral 5 Eye Damage/Irritation 2A Skin Corrosion/Irritation 2
Hazard symbols	
Signal word(s)	Warning
Hazard statement(s)	H303 - May be harmful if swallowed H315 - Causes skin irritation H319 - Causes serious eye irritation H332 - Harmful if inhaled

Precautionary statement(s)	Prevention	P261 - Avoid breathing dust/fumes/gas/mist/vapours/spray. P271 - Use only outdoors or in a well-ventilated area. P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
	Response	P312 - Call a POISON CENTER or doctor if you feel unwell. P304+340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P302+352 - IF ON SKIN: Wash with plenty of water. P321 - Specific treatment (see ... on this label). P332+313 - If skin irritation occurs: Get medical advice/attention. P362 - Take off contaminated clothing. 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.
	Storage	
	Disposal	

3. Composition and Information on Ingredients

Name	Proportion
2-Butoxyethanol	<10%
Ethyl Alcohol	10-30%

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	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: 2-Butoxyethanol: Combustion products may include but are not limited to: Carbon monoxide. Carbon dioxide. Ethyl Alcohol: Burning can produce carbon monoxide and/or carbon dioxide.
Special protective equipment and precautions for fire fighters	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. 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. HazChem (EAC): 2RE

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 counteracting 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 indeterminate goodness wellbeing always. 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>2-Butoxyethanol: 96.9 mg/m3 AU OEL TWA</p>
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	242 mg/m ³ AU OEL STEL Ethyl Alcohol: Ethanol: TWA - 1000 ppm (1880 mg/m ³) Methanol: TWA - 200 PPM (262 MG/M ³) STEL - 250 PPM (328MG/M ³) Notices – Sk
Biological limits	Biological limits for ingredient(s) are: 2-Butoxyethanol: No biological limit values have been entered for this product. Ethyl Alcohol: No biological limit allocated.
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.
Personal protective equipment (PPE)	Safety glasses with side shields. Chemical protective gloves.

9. Physical and Chemical Properties

Appearance (physical state, colour etc.)	Not specified
Odour	Not specified
Odour threshold	Not specified
pH	Not specified
Melting point/freezing point	Not specified
Initial boiling point and boiling range	Not specified
Flash point	Not specified
Evaporation rate	Not specified
Flammability (solid, gas)	Not specified
Upper/lower flammability or explosive limits	Not specified

Rejonasus Factor	Not specified
Vapour pressure	Not specified
Vapour density	Not specified
Relative density	Not specified
Solubility	Not specified
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	Category 4
Acute Toxicity, Oral	Category 5
Acute Toxicity, Vapours	Not Applicable
Skin Corrosion/Irritation	Category 2
Eye Damage/Irritation	Category 2A
Respiratory Sensitization	Not Applicable
Skin Sensitization	Not Applicable
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 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 Ethyl Alcohol**Toxicological Data:**

LD50/oral/rat: 7060 mg/kg (literature data) (Ethanol)

LC50/inhalation/rat: 38 mg/l/10 h (literature data) (Ethanol)

Health effects information is based on reported effects in use from overseas and Australian reports.

The denaturant used in this product is 2% Methanol. This will not alter the safety of the product during the industrial use, but drinking the product may cause optic nerve (visual) damage.

Effects: Acute**Swallowed:**

Accidental swallowing is unlikely in the industrial setting. Swallowing ethanol can cause drunkenness or harmful central nervous system effects. The deliberate ingestion of ethanol is a known occupational risk.

As little as 50 - 100 ml intake in a shift in a 70kg worker may cause inebriation to the point where safety is impaired. Effects of a small intake may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, and fatigue.

Drinking a large amount may lead to severe acute intoxication, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death. Aspiration into lungs may cause pneumonitis.

The presence of 2 % methanol will not alter the safety of the product during the industrial use, but drinking the product may cause optic nerve (visual) damage.

Eyes:

Vapours may irritate the eyes. Liquid and mists may severely irritate or damage the eyes.

Skin:

Contact with skin may result in slight irritation and redness.

Inhaled:

Vapour is moderately irritating to mucous membranes and respiratory tract. Inhalation of the vapour may result in drunkenness (see effects of swallowing above) or headache, nausea, incoordination, narcosis (sleepiness) and vomiting.

Early signs or symptoms may occur at airborne levels of 1000 to 5000 ppm.

Effects: Chronic

Long term exposure by swallowing or repeated inhalation may cause degenerative changes in the liver, kidneys, gastrointestinal tract and heart muscle.

Prolonged or repeated contact and heavy skin contamination may cause skin drying and cracking and/or dermatitis with redness, itching, and swelling. This may lead to secondary infection.

Ongoing or repeated exposures at high concentrations may cause central nervous system symptoms similar to "Acute: Swallowed" above. Deliberate inhalation of the vapour is a known occupational risk.

Additional Notes

Nasal and eye irritation may occur at concentrations below the exposure standard. Exposure to ethanol in the work setting adds to any intake from alcoholic drinks and any health effects caused by the total intake of alcohol.

In work areas where exposures in excess of the occupational exposure limits occur, then the following may apply:

- Persons with pre-existing liver impairment, skin and respiratory disorders may be at an increased risk.

- Ethanol may cause adverse reproductive effects.
- Absorption of some drugs may be affected causing adverse health effects.
- Ingestion by pregnant women may cause serious effects in their newborn babies called "foetal alcohol syndrome".

The National Occupational Health & Safety Commission in Australia (NOHSC) does not classify ethanol as a carcinogen.

IARC has evaluated ethanol as a carcinogen on the basis of effects of drinking alcoholic beverages, but there is no known carcinogenic risk from occupational exposures.

There is extensive toxicological and epidemiological information on the health effects of ingesting alcoholic drinks containing ethanol.

Inhalation at levels at or exceeding the Occupational Exposure limits or any deliberate ingestion is known to lead to health effects which may be evident in themselves or lead to impaired functioning and consequent safety risks in the industrial setting.

A blood alcohol level in excess of 0.05g/100ml is regarded as likely to impair functioning for tasks such as operating machinery.

12. Ecological Information

Acute Aquatic Toxicity	Not Applicable
Chronic Aquatic Toxicity	Not Applicable

Ecological Information for Water

None specified.

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 Ethyl Alcohol

Eco-toxicity: (Ethanol)

Toxicity to fish (acute): LC50/Golden ide/: >1000 mg/l/48 h

Toxicity to daphnia: ec50/Daphnia magna/: >1000 mg/l/24 h

Persistence and Degradability: (Ethanol)

Degree of elimination: 94%

Evaluation: biodegradable

Mobility: No data available

Ecological Information for Color Blue

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	Not classified as having an acute aquatic toxicity.
UFAC Code	TANZ 334B8
Special Precautions for user	None specified

Additional Information	None specified
Hazchem or Emergency Action Code	2RE

15. Regulatory Information

No information in this section.

16. Other information

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