Ezy Wax Auto Klene Solutions Chemwatch: 73-5413

Safety Data Sheet according to WHS and ADG requirements

Version No: 7.1.1.1

Chemwatch Hazard Alert Code: 2

Issue Date: 01/11/2019 Print Date: 01/02/2021 S.GHS.AUS.EN

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

Product Identifier		
Product name	Ezy Wax	
Chemical Name	Not Applicable	
Synonyms	Not Available	
Chemical formula	Not Applicable	
Other means of identification	Not Available	

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

Relevant identified uses	Sealer Wax/Drying Agent.
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Details of the supplier of the safety data sheet

Registered company name	Auto Klene Solutions	
Address	1/83 Merrindale Drive Croydon VIC 3136 Australia	
Telephone	3 8761 1900	
Fax	+61 3 8761 1955	
Website	http://www.autoklene.com/msds/	
Email	Not Available	

Emergency telephone number

	Association / Organisation	Auto Klene Solutions	
	Emergency telephone numbers	131 126 (Poisons Information Centre)	
Other emergency telephone numbers 0800 764 766 (New Zealand Poisons Information Centre)			

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	1	
Toxicity	2	0 = Minimum
Body Contact	2	1 = Low
Reactivity	1 📕	2 = Moderate
Chronic	1	3 = High 4 = Extreme

Poisons Schedule	Not Applicable	
Classification ^[1]	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	

Label elements



Signal word Warning

Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.

H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
H412	Harmful to aquatic life with long lasting effects.	

Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.	
P261	Avoid breathing mist/vapours/spray.	
P270	Do not eat, drink or smoke when using this product.	
P273	Avoid release to the environment.	
P280	P280 Wear protective gloves/protective clothing/eye protection/face protection.	

Precautionary statement(s) Response

P321	Specific treatment (see advice on this label).	
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.	
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.	
P302+P352	IF ON SKIN: Wash with plenty of water.	
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	

Precautionary statement(s) Storage

P405	Store locked up.	
P403+P233 Store in a well-ventilated place. Keep container tightly closed.		

Precautionary statement(s) Disposal

P501 D

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
61789-77-3	10-30	dicocodimethylammonium chloride.
67-63-0	10-30	isopropanol
68989-03-7	1-10	guaternary cocoamine dimethyl sulfate, ethoxylated
111-76-2	0-10	ethylene glycol monobutyl ether
Not Available	<1	perfume
7732-18-5	balance	water
Not Available	balance	Ingredients determined not to be hazardous

SECTION 4 First aid measures

Description of first aid measur	escription of first aid measures		
Eye Contact	 If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. 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, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. 		

INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
 NOTE: Wear a protective glove when inducing vomiting by mechanical means.

Indication of any immediate medical attention and special treatment needed

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.
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ADVANCED TREATMENT

- + Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- + Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- Treat seizures with diazepam.
- Proparacaine hydrochloride should be used to assist eye irrigation.

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EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result		
Advice for firefighters			
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. 		
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) hydrogen chloride phosgene nitrogen oxides (NOX) other pyrolysis products typical of burning organic material. May emit corrosive fumes. WARNING: Long standing in contact with air and light may result in the formation of potentially explosive peroxides. 		
HAZCHEM	Not Applicable		

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures See section 8

Ezy Wax

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Remove all ignition sources. 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. No smoking, naked lights or ignition sources. Increase ventilation.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides. The substance may concentrate around the container opening for example. Purchases of peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised. A responsible person should maintain an inventory of peroxidisable chemicals or annotate the general chemical inventory to indicate which chemicals are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxides or disposed of before this date. The person or laboratory receiving the chemical should record a receipt date on the bottle. 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. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials.
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. 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.

Conditions for safe storage, including any incompatibilities

Suitable container	 DO NOT use aluminium or galvanised containers Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 Alcohols are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents. reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium should not be heated above 49 deg. C. when in contact with aluminium equipment

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	isopropanol	Isopropyl alcohol	400 ppm / 9	983 mg/m3	1230 mg/m3 /	500 ppm	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	2-Butoxyethanol	20 ppm / 96	6.9 mg/m3	242 mg/m3 /	50 ppm	Not Available	Not Available
Emergency Limits								
Ingredient	Material name			TEEL-1	TEEL	-2	TEEL-3	
isopropanol	Isopropyl alcohol			400 ppm	2000*	ppm	12000** p	pm
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether El	В)		60 ppm	120 pp	om	700 ppm	
Ingredient	Original IDLH			Revised	IDLH			
dicocodimethylammonium chloride	Not Available		Not Ava	ilable				

Exposure controls

Ingredient	Original IDLH	Revised IDLH	
isopropanol	2,000 ppm	Not Available	
quaternary cocoamine dimethyl sulfate, ethoxylated	Not Available	Not Available	
ethylene glycol monobutyl ether	700 ppm	Not Available	
water	Not Available	Not Available	
Occupational Exposure Banding			
Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
dicocodimethylammonium chloride	E	≤ 0.01 mg/m³	
quaternary cocoamine dimethyl sulfate, ethoxylated	E	≤ 0.1 ppm	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the		

adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

	Engineering contro
	be highly effective i
	The basic types of
Appropriate engineering	Process controls w
controls	Enclosure and/or is
	"adds" and "remove
	ventilation system
	Employers may nee

Personal protection

Eye and face protection

ing ols	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.



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.

Skin protection	See Hand protection below
Hands/feet protection	 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. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

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:

Ezy W	'ax
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Material	CPI
NEOPRENE	В
BUTYL	С
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NITRILE	С
NITRILE+PVC	С
PE/EVAL/PE	С
PVA	С

Respiratory protection

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

Ezy Wax

PVC	С
SARANEX-23	С
VITON	С

* 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.

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	ABK-AUS P2	-	ABK-PAPR-AUS / Class 1 P2
up to 50 x ES	-	ABK-AUS / Class 1 P2	-
up to 100 x ES	-	ABK-2 P2	ABK-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)

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

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Blue coloured liquid; mixes with water		
Physical state	Liquid	Relative density (Water = 1)	0.9
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	6-7	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 Applicable
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
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 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

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of

Inhaled

	co-ordination, and vertigo. There is some evidence to suggest that the material can cause respirat cause further lung damage.	tory irritation in some persons. The body's response to such irritation can
Ingestion	Accidental ingestion of the material may be harmful; animal experiment produce serious damage to the health of the individual.	ts indicate that ingestion of less than 150 gram may be fatal or may
Skin Contact	The material may cause mild but significant inflammation of the skin eit exposure can cause contact dermatitis which is characterised by redne Repeated exposure may cause skin cracking, flaking or drying following Open cuts, abraded or irritated skin should not be exposed to this mate	ess, swelling and blistering. g normal handling and use. erial isions, may produce systemic injury with harmful effects. Examine the skin
Eye	This material can cause eye irritation and damage in some persons.	
Chronic	Long-term exposure to the product is not thought to produce chronic ef models); nevertheless exposure by all routes should be minimised as a Prolonged or repeated skin contact may cause degreasing, followed by	
	ΤΟΧΙΟΙΤΥ	IRRITATION
Ezy Wax	Not Available	Not Available
dicocodimethylammonium	ΤΟΧΙΟΙΤΥ	IRRITATION
chloride	Oral(Rat) LD50; 200 mg/kg ^[2]	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
	Dermal (rabbit) LD50: 12.792 mg/kg ^[1]	Eye (rabbit): 10 mg - moderate
isopropanol	Inhalation(Mouse) LC50; =27.2 mg/l4hrs ^[2]	Eye (rabbit): 100 mg - SEVERE
	Oral(Rat) LD50; 0.006 mg/kg ^[1]	Eye (rabbit): 100mg/24hr-moderate
		Skin (rabbit): 500 mg - mild
quaternary cocoamine	ΤΟΧΙΟΙΤΥ	IRRITATION
dimethyl sulfate, ethoxylated	Not Available	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
	Dermal (rabbit) LD50: 667 mg/kg ^[1]	Eye (rabbit): 100 mg SEVERE
	Inhalation(Rat) LC50; =2.21 mg/l4hrs ^[2]	Eye (rabbit): 100 mg/24h-moderate
ethylene glycol monobutyl	Oral(Guinea) LD50; 1414 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
ether		Skin (rabbit): 500 mg, open; mild
		Skin: adverse effect observed (irritating) ^[1]
		Skin: no adverse effect observed (not irritating) ^[1]
water	ΤΟΧΙΟΙΤΥ	IRRITATION
	Oral(Rat) LD50; >90 mg/kg ^[2]	Not Available
Legend:	 Value obtained from Europe ECHA Registered Substances - Acute t specified data extracted from RTECS - Register of Toxic Effect of chen 	
DICOCODIMETHYLAMMONIUM CHLORIDE	and R41. In addition, certain surfactants will satisfy the criteria for clas According to Centre Europeen des Agents de Surface et de leurs Inter	ely to cause mutation or affect reproduction, cause birth defects or lkyldimethylammonium (DADMA) salts, but they are expected to have ney are generally less irritating than the corresponding ATMA salts as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 sification as Corrosive with R34 in addition to the acute toxicity. rmediaires Organiques (CESIO), C8-18 alkyltrimethylammonium chloride <i>ve</i> (C) with the risk phrases R22 (Harmful if swallowed) and R34 (Causes R22 (Harmful if swallowed), R38 (Irritating to skin), and R41 (Risk of with R36/38 (Irritating to eyes and skin).
	surfactants have on the mucous membrane of the gastrointestinal trac through a vein, compared to being given by mouth. Skin and eye irritation: Skin irritation depends on surfactant concentrat	t. Cationic surfactants are generally about 10 times more toxic when given tion. * [Akzo Nobel]
ISOPROPANOL	Isopropanol is irritating to the eyes, nose and throat but generally not to the skin. Prolonged high dose exposure may also produce depression of the central nervous system and drowsiness. Few have reported skin irritation. It can be absorbed from the skin or when inhaled. Intentional swallowing is common particularly among alcoholics or suicide victims and also leads to fainting, breathing difficulty, nausea, vomiting and headache. In the absence of unconsciousness, recovery usually occurred. Repeated doses may damage the kidneys. The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.	

QUATERNARY COCOAMINE DIMETHYL SULFATE, ETHOXYLATED	As cationic polymers possess unique physical structures and surface properties, various kinds of cationic polymers have been developed over the past few decades for a wide spectrum of nanomedical applications in the central nervous system (CNS). Although cationic polymers could be successfully used for gene transfer, drug delivery, and diagnostic imaging, after entering into the CNS, they may cause neurotoxicity and induce CNS damage, which seriously limits their applications. The neurotoxic effects of cationic polymers on CNS are mostly studied in mice, and have not been examined in detail. While evaluating the neurotoxicity of cationic polymers, the surface charge, surface area, coating, size, shape, and the basic materials that cationic polymers are made up of are expected to show important roles, and should be carefully considered. Apoptosis, necrosis, autophagy, oxidative stress, inflammation, and inflammasome; which are expected to be the most important problems in the evaluation of cationic polymers- induced neurotoxicity. Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation. Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. For quaternary ammonium compounds (QACs): Quaternary ammonium compounds are synthetically made surfactants. Studies show that its solubility, toxicity and irritation depend on chain length and bond type while effect on histamine depends on concentration. QACs may cause muscle paralysis with no brain involvement. There is a significant association between the development of asthma symptoms and the use of QACs as disinfectant.		
ETHYLENE GLYCOL MONOBUTYL ETHER	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 The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. For ethylene glycol monoalkyl ethers and their acetates (EGMAEs): 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: Cral LDSO 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 LOO > 85 ppm (508 mg/m3) for EGHE, LCSO > 400ppm (2620 mg/m3) for EGBEA to LCSO > 2132 ppm (9061 mg/m3) for EGPE. No lethality was observed for any of these materials under these conditions. Dermal LD50 values in rabbits range from 435 mg/kg bw (EGBE) to 1500 mg/kg bw (EGBEA). Overall these category members can be considered to be of low to moderate acute toxicity. Animal testing showed that exposure to ethylene glycol monobutyl ether resulted in toxicity to both the mother and the embryo. Reproductive effects were thought to be less than that of other monoalkyl ethers of ethylene glycol. Chronic exposure may cause anaemia, with enlargement and fragility of red blood cells. It is thought that in animals butoxyethanol may cause generalized cloting and bone infarction. In animals, 2-butoxyethan		
DICOCODIMETHYLAMMONIUM CHLORIDE & ISOPROPANOL	ethylene glycol is eliminated in the urine as both the parent compound and glycolic acid. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. 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. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.		
ISOPROPANOL & ETHYLENE GLYCOL MONOBUTYL ETHER	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.		
QUATERNARY COCOAMINE DIMETHYL SULFATE, ETHOXYLATED & WATER	No significant acute toxicological data identified in lite	rature search.	
Acute Toxicity	¥	Carcinogenicity	×
Skin Irritation/Corrosion	*	Reproductivity	×
Serious Eye Damage/Irritation	*	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

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

SECTION 12 Ecological information

Toxicity

Ezy Wax	Endpoint Not Available	Test Duration (hr) Not Available	Species Not Available	Value Not Available	Source Not Available
dicocodimethylammonium	Endpoint	Test Duration (hr)	Species	Value	Source
chloride	LC50	96	Fish	0.26mg/L	2

Legend:		n 1. IUCLID Toxicity Data 2. Europe ECHA) - Aquatic Toxicity Data (Estimated) 4. US	Registered Substances - Ecotoxicological Inforr	mation - Aquatic Toxicity 3.	EPIWIN Sui
water	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEL	336	Not Available	49.50000-mg/L	4
	EC50	72	Algae or other aquatic plants	623mg/L	2
ethylene glycol monobutyl ether	EC50	48	Crustacea	164mg/L	2
	LC50	96	Fish	1250-mg/L	4
	Endpoint	Test Duration (hr)	Species	Value	Source
dimethyl sulfate, ethoxylated	Not Available	Not Available	Not Available	Not Available	Not Available
quaternary cocoamine	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC	5760	Fish	<0.02-mg/L	4
	EC10	168	Algae or other aquatic plants	12.44-mg/L	4
	EC50	96	Algae or other aquatic plants	>1000mg/L	1
isopropanol	EC50	48	Crustacea	7550mg/L	4
	LC50	96	Fish	>1400-mg/L	4
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC	840	Fish	0.053mg/L	2
	EC10	72	Algae or other aquatic plants	0.062mg/L	2
	EC50	72	Algae or other aquatic plants	0.13mg/L	2

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

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
isopropanol	LOW (LogKOW = 0.05)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)
water	LOW (LogKOW = -1.38)

Mobility in soil

Ingredient	Mobility
isopropanol	HIGH (KOC = 1.06)
ethylene glycol monobutyl ether	HIGH (KOC = 1)
water	LOW (KOC = 14.3)

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 Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 Transport information

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

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

Product name	Group		
dicocodimethylammonium chloride	Not Available		
isopropanol	Not Available		
quaternary cocoamine dimethyl sulfate, ethoxylated	Not Available		
ethylene glycol monobutyl ether	Not Available		
water	Not Available		

Transport in bulk in accordance with the ICG Code

Product name	Ship Type		
dicocodimethylammonium chloride	Not Available		
isopropanol	Not Available		
quaternary cocoamine dimethyl sulfate, ethoxylated	Not Available		
ethylene glycol monobutyl ether	Not Available		
water	Not Available		

SECTION 15 Regulatory information

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

dicocodimethylammonium chloride is found on the following regulatory lists

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)

isopropanol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC)

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

quaternary cocoamine dimethyl sulfate, ethoxylated is found on the following regulatory lists

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)

ethylene glycol monobutyl ether is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC) International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

National Inventory	Status			
Australia - AIIC / Australia Non-Industrial Use	Yes			
Canada - DSL	Yes			
Canada - NDSL	No (dicocodimethylammonium chloride; isopropanol; quaternary cocoamine dimethyl sulfate, ethoxylated; ethylene glycol monobutyl ether; water			
China - IECSC	Yes			
Europe - EINEC / ELINCS / NLP	No (quaternary cocoamine dimethyl sulfate, ethoxylated)			
Japan - ENCS	No (dicocodimethylammonium chloride; quaternary cocoamine dimethyl sulfate, ethoxylated)			
Korea - KECI	Yes			
New Zealand - NZIoC	Yes			
Philippines - PICCS	No (quaternary cocoamine dimethyl sulfate, ethoxylated)			
USA - TSCA	Yes			

Ezy Wax

National Inventory	Status		
Taiwan - TCSI	Yes		
Mexico - INSQ	No (dicocodimethylammonium chloride; quaternary cocoamine dimethyl sulfate, ethoxylated)		
Vietnam - NCI	Yes		
Russia - ARIPS	No (quaternary cocoamine dimethyl sulfate, ethoxylated)		
Legend:	gend: Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in bra		

SECTION 16 Other information

Revision Date	01/11/2019
Initial Date	06/01/2017

SDS Version Summary

Version	Issue Date	Sections Updated
4.1.1.1	10/01/2017	Acute Health (eye), Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Advice to Doctor, Chronic Health, Classification, Engineering Control, Environmental, Fire Fighter (fire/explosion hazard), First Aid (eye), First Aid (inhaled), First Aid (skin), First Aid (swallowed), Personal Protection (eye), Personal Protection (hands/feet), Spills (major), Spills (minor), Storage (storage incompatibility), Storage (storage requirement), Transport, Transport Information
7.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

Other information

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.

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.

