# Auto Klene Be-Dazzled

Auto Klene Solutions

Version No: 2.3 Safety Data Sheet according to WHS and ADG requirements Chemwatch Hazard Alert Code: 2

Issue Date: 23/01/2020 Print Date: 23/01/2020 S.GHS.AUS.EN

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

Product Identifier	
Product name	Auto Klene Be-Dazzled
Synonyms	Not Available
Other means of identification	Not Available
Relevant identified uses of the s	substance or mixture and uses advised against
Relevant identified uses	Glass cleaner.
Details of the supplier of the safe	ety data sheet
Registered company name	Auto Klene Solutions
Address	1/83 Merrindale Drive Croydon VIC 3136 Australia
Telephone	+61 3 8761 1900
Fax	+61 3 8761 1955
Website	http://www.autoklene.com
Email	info@autoklene.com
Emergency telephone number	
Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available
SECTION 2 HAZARDS IDEN	TIFICATION

### Classification of the substance or mixture

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

# CHEMWATCH HAZARD RATINGS

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

Poisons Schedule	Not Applicable		
Classification <sup>[1]</sup>	Eye Irritation Category 2A, Flammable Liquid Category 4, Skin Sensitizer Category 1		
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI		
Label elements			
Hazard pictogram(s)			
SIGNAL WORD	WARNING		
Hazard statement(s)			
H319	Causes serious eye irritation.		
P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.		

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H227	Combustible liquid.
H317	May cause an allergic skin reaction.
Precautionary statement(s) Pre-	vention
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
Precautionary statement(s) Res	ponse
P321	Specific treatment (see advice on this label).
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use water spray/fog for extinction.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
Precautionary statement(s) Stor	rage
P403+P235	Store in a well-ventilated place. Keep cool.
Precautionary statement(s) Dis	posal
P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
SECTION 3 COMPOSITION	INFORMATION ON INGREDIENTS

# SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

### Mixtures

CAS No	%[weight]	Name
67-63-0	<5	isopropanol
64-17-5	<5	ethanol
111-76-2	<5	ethylene glycol monobutyl ether
7732-18-5	>60	water
Not Available	<5	surfactants

# **SECTION 4 FIRST AID MEASURES**

### Description of first aid measures

	If this product comes in contact with the eyes: ▶ Wash out immediately with fresh running water.
Eye Contact	• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the uppe 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.
	If skin contact occurs:
	Immediately remove all contaminated clothing, including footwear.
Skin Contact	▶ Flush skin and hair with running water (and soap if available).
	Seek medical attention in event of irritation.
	▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶
Inhalation	Other measures are usually unnecessary.
	▶ 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.
Ingestion	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.

### 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.

[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: • foam.

+ dry chemical powder. +

carbon dioxide.

### Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
Advice for firefighters	
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>Avoid spraying water onto liquid pools.</li> <li><b>DO NOT</b> approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> <li>Mists containing combustible materials may be explosive.</li> <li>Combustion products include:</li> <li>, acrbon dioxide (CO2)</li> <li>, other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> <li>May emit corrosive fumes.</li> </ul>
HAZCHEM	Not Applicable

# SECTION 6 ACCIDENTAL RELEASE MEASURES

# Personal precautions, protective equipment and emergency procedures

See section 8

# **Environmental precautions**

See section 12

### Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Remove all ignition sources.</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
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

	▶ Avoid all personal contact, including inhalation.
	▶ Wear protective clothing when risk of exposure occurs.
	▶ Use in a well-ventilated area.
Cofe handling	▶ Prevent concentration in hollows and sumps.
Safe handling	► 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
	▶ Store in original containers.
	▶ Keep containers securely sealed.
	▶ No smoking, naked lights or ignition sources.
Other information	▶ 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.
	<ul> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>
onditions for safe storage, inc	luding any incompatibilities
	▶ Metal can or drum
Suitable container	▶ Packaging as recommended by manufacturer.
	► Check all containers are clearly labelled and free from leaks.
Storage incompatibility	► Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates. None known

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION** 

**Control parameters** 

### OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	isopropanol	lsopropyl alcohol	400 ppm / 983 mg/m3	1230 mg/m3 / 500 ppm	Not Available	Not Available
Australia Exposure Standards	ethanol	Ethyl alcohol	1000 ppm / 1880 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	2- Butoxyethanol	20 ppm / 96.9 mg/m3	242 mg/m3 / 50 ppm	Not Available	Not Available

EMERGENCY LIMITS					
Ingredient	Material name TEE		-1	TEEL-2	TEEL-3
isopropanol	Isopropyl alcohol	400 pj	om	2000 ppm	12000 ppm
ethanol	Ethyl alcohol; (Ethanol)	Not Available		Not Available	15000 ppm
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm		120 ppm	700 ppm
Ingredient	Original IDLH		Revised IDLH		
isopropanol	2,000 ppm		Not Available		
ethanol	3,300 ppm		Not Available		
ethylene glycol monobutyl ether	700 ppm		Not Available		
water	Not Available		Not Available		

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: Process controls which involve changing the way a job activity or process is done to reduce the risk.

Appropriate engineering controls Process controls which involve changing the way a j Enclosure and/or isolation of emission source which

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.



Personal protection

Continued...

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Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> <li>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</li> </ul>
	remove contact lens as soon as practicable.
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>NOTE:</li> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> <li>Eye wash unit.</li> </ul>
commended material(s)	which might otherwise be unsuitable following long-term or frequent use. A qualified

CPI

### Recommended material(s)

### GLOVE SELECTION INDEX

Material

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

computergenerated selection: Auto Klene Be-Dazzled

which might otherwise be unsultable following long term of negatine date. A quality
practitioner should be consulted.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES **Respiratory protection**

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

### ^ - 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

### 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 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 suchas "feel" or convenience (e.g. disposability), may dictate a choice of gloves

### Information on basic physical and chemical properties

Appearance Clear coloured liquid with a floral powdery odour; mixes with water.

Physical state     2     Relative density (Water = 1)     Not Available	Physical state
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Odour	Not Available	Partition coefficient n- octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	6.5-7.5	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	~100	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>65	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	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) SECTION 10 STABILITY ANI	Not Available	VOC g/L	Not Available

# SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
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

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Animal testing shows that the most common signs of inhalation overdose is inco-ordination and drowsiness. Not normally a hazard due to non-volatile nature of product
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	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion of ethanol (ethyl alcohol, "alcohol") may produce nausea, vomiting, bleeding from the digestive tract, abdominal pain, and diarrhoea. Effects on the body:				
	Blood concentration Effects				
	Alid: impaired vision, co-ordination and <1.5 g/L reaction time; emotional instability				
Ingestion	<ul> <li>Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing,</li> <li>1.5-3.0 g/L</li> <li>fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium. Central nervous system depression may progress to coma.</li> </ul>				
	3-5 g/L	Severe: cold clammy skin, low body temperature and low blood pressure.			
		Atrial fibrillation and heart block have been reported.			
	reported. Swallowing 10 millilitres of isopropanol may cause serious injury; 100 millilitres may be fatal if not properly treated. The adult single lethal dose is approximately 250 millilitres. Isopropanol is twice as poisonous as ethanol, and the effects caused are similar, except that isopropanol does not cause an initial feeling of well-being. Swallowing may cause nausea, vomiting and diarrhea; vomiting and stomach inflammation is more prominent with isopropanol than with ethanol. Animals given near-lethal doses also showed inco-ordination, lethargy, inactivity and loss of consciousness. There is evidence that a slight tolerance to isopropanol may be acquired.				
			rritation following contact (as classified by EC Directives using animal		
Skin Contact	models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. 511ipa				
Eye	This material can cause eye irritation and damage in some persons. Direct contact of the eye with ethanol (alcohol) may cause an immediate stinging and burning sensation, with reflex closure of the lid, and a temporary, tearing injury to the cornea together with redness of the conjunctiva. Discomfort may last 2 days but usually the injury heals without treatment. Isopropanol vapour may cause mild eye irritation at 400 parts per million. Splashes may cause severe eye irritation, possible burns to the cornea and eye damage. Eye contact may cause tearing and blurring of vision.				
Chronic	Skin contact with the ma Based on experiments can be inherited.	aterial is more likely to cause a sensitisation re	nulative health effects involving organs or biochemical systems. action in some persons compared to the general population. to presume that exposure to this material can cause genetic defects that material directly reduces fertility.		
	There has been concern Long term, or repeated Repeated inhalation exp developmental effects of There are inconclusive body effects of isopropa	Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents. "here has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. .ong term, or repeated exposure of isopropanol may cause inco-ordination and tiredness. Repeated inhalation exposure to isopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show levelopmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage. "here are inconclusive reports of human sensitisation from skin contacts with isopropanol. Chronic alcoholics are more tolerant of the who yody effects of isopropanol. mimal testing showed the chronic exposure did not produce reproductive effects.			
	ΤΟΧΙCITY		IRRITATION		
Auto Klene Be- Dazzled					
	Not Available		Not Available		
	TOXICITY		IRRITATION		
isopropanol	dermal (rat) LD50: =12	800 mg/kg <sup>[2]</sup>	Eye (rabbit): 10 mg - moderate		
	Inhalation (rat) LC50: 7		Eye (rabbit): 100 mg - SEVERE		
	Oral (rat) LD50: =4396		Eye (rabbit): 100mg/24hr-moderate		
			Skin (rabbit): 500 mg - mild		

	тохісітү	IRRITATION
	Inhalation (rat) LC50: 124.7 mg/l/4 $H^{2]}$	Eye (rabbit): 500 mg SEVERE
ethanol	Oral (rat) LD50: =1501 mg/kg <sup>[2]</sup>	Eye (rabbit):100mg/24hr-moderate
		Eye: adverse effect observed (irritating) <sup>1]</sup>
		Skin (rabbit):20 mg/24hr-moderate
		Skin (rabbit):400 mg (open)-mild
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 100 mg SEVERE
ethylene glycol monobutyl	Inhalation (rat) LC50: 449.48655 mg/l/4H <sup>2]</sup>	Eye (rabbit): 100 mg/24h-moderate
ether	Oral (rat) LD50: 250 mg/kd <sup>2]</sup>	Eye: adverse effect observed (irritating $[1]$
		Skin (rabbit): 500 mg, open; mild
		Skin: adverse effect observed (irritating) <sup>11</sup>
		Skin: no adverse effect observed (initiality)
	ΤΟΧΙΟΙΤΥ	IRRITATION
water		
	Oral (rat) LD50: >90000 mg/kg <sup>[2]</sup>	Not Available
Legend:		cute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise
	specified data extracted from RTECS - Register of Toxic Effect of	
Auto Klene Be- Dazzled	eczema involves a cell-mediated (T lymphocytes) immune reaction involve antibody-mediated immune reactions. The significance of distribution of the substance and the opportunities for contact with	a, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact on of the delayed type. Other allergic skin reactions, e.g. contact urticaria, the contact allergen is not simply determined by its sensitisation potential: the h it are equally important. A weakly sensitising substance which is widely ger sensitising potential with which few individuals come into contact. From a
ISOPROPANOL	known as reactive airways dysfunction syndrome (RADS) which of criteria for diagnosing RADS include the absence of previous airw asthma-like symptoms within minutes to hours of a documented ef airflow pattern on lung function tests, moderate to severe bronchi lymphocytic inflammation, without eosinophilia. RADS (or asthma the concentration of and duration of exposure to the irritating subs result of exposure due to high concentrations of irritating substan disorder is characterized by difficulty breathing, cough and mucus lsopropanol is irritating to the eyes, nose and throat but generally of the central nervous system and drowsiness. Few have reporter swallowing is common particularly among alcoholics or suicide via	not to the skin. Prolonged high dose exposure may also produce depression d skin irritation. It can be absorbed from the skin or when inhaled. Intentional ctims and also leads to fainting, breathing difficulty, nausea, vomiting and occurred. Repeated doses may damage the kidneys. The substance is
ETHYLENE GLYCOL MONOBUTYL ETHER	ASCC (NZ) SDS The material may produce severe irritation to the eye causing pro produce conjunctivitis. For ethylene glycol monoalkyl ethers and their acetates (EGMAE: Typical members of this category are ethylene glycol propylene e ether (EGHE) and their acetates. EGMAEs are substrates for alcohol dehydrogenase isozyme ADH	n animals exposed to high concentrations of this substance by all routes. ** onounced inflammation. Repeated or prolonged exposure to irritants may s): ther (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl H-3, which catalyzes the conversion of their terminal alcohols to aldehydes a aldehydes by aldehyde dehydrogenase produces alkoxyacetic acids, which

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	the predominant urinary metabolites of mono substitute Acute Toxicity: Oral LD50 values in rats for all categor with decreasing molecular weight. Four to six hour acut vapour concentrations practically achievable. Values rat EGBEA to LC50 > 2132 ppm (9061 mg/m3) for EGPE. I LD50 values in rabbits range from 435 mg/kg bw (EGBE of low to moderate acute toxicity. Animal testing showed that exposure to ethylene glycol effects were thought to be less than that of other monor Chronic exposure may cause anaemia, with enlargeme generalized clotting and bone infarction. In animals, 2-b For ethylene glycol: Ethylene glycol is quickly and extensively absorbed thro through the airways; absorption through skin is apparen initially metabolized by alcohol dehydrogenase to form of products are oxidized to glyoxylate, which may be furthe formic acid can generate carbon dioxide, which is one of ethylene glycol is eliminated in the urine as both the par	y members range from 739 (EGHE) e inhalation toxicity studies were cor nge from LCO > 85 ppm (508 mg/m3 No lethality was observed for any of E) to 1500 mg/kg bw (EGBEA). Over monobutyl ether resulted in toxicity alkyl ethers of ethylene glycol. nt and fragility of red blood cells. It is outoxyethanol also increased the rate bughout the gastrointestinal tract. Lin tty slow. Following absorption, it is of glycoaldehyde, which is rapidly com er metabolized to formic acid, oxalic of the major elimination products of e	to 3089 mg/kg bw (EGPE), with values increasing iducted for these chemicals in rats at the highest ) for EGHE, LC50 > 400ppm (2620 mg/m3) for these materials under these conditions. Dermal all these category members can be considered to be to both the mother and the embryo. Reproductive is thought that in animals butoxyethanol may cause of some cancers, including liver cancer. Thited information suggests that it is also absorbed istributed throughout the body. In humans, it is erted to glycolic acid and glyoxal. These breakdown acid, and glycine. Breakdown of both glycine and
WATER	No significant acute toxicological data identified in litera	ture search.	
ISOPROPANOL & ETHANOL & ETHYLENE GLYCOL MONOBUTYL ETHER	The material may cause skin irritation after prolonged of of vesicles, scaling and thickening of the skin.	r repeated exposure and may produ	ce on contact skin redness, swelling, the production
Acute Toxicity		Carcinogenicity	
Skin Irritation/Corrosion		Reproductivity	
Serious Eye Damage/Irritation		STOT - Single Exposure	
Respiratory or Skin sensitisation	•	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	X
		-	available or does not fill the criteria for classification to make classification

# SECTION 12 ECOLOGICAL INFORMATION

Toxicity						
Auto Klene Be- Dazzled						
	ENDPOINT	TEST DURATION (HR)		SPECIES	VALUE	SOURCE
	NotNotNot	Not AvailableNot Available	Available	AvailableAvailable		

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	ENDPOINT	TEST DORATION (HR)	SPECIES	VALUE	SOURCE
isopropanol	LC50	96	Fish	9-640mg/L	2
	EC50	48	Crustacea	12500mg/L	5
	EC50	96	Algae or other aquatic plants	993.232mg/L	3
	EC0	24	Crustacea	5-102mg/L	2
	NOEC	5760	Fish	0.02mg/L	4
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
ethanol	LC50	96	Fish	11-mg/L	2
	EC50	48	Crustacea	2mg/L	4
	EC50	96	Algae or other aquatic plants	17.921mg/L	4
	NOEC	2016	Fish	0.000375mg/L	4
		-	-		
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
ethylene glycol monobutyl					
ether	LC50	96	Fish	1-700mg/L	2
	EC50	48	Crustacea	ca.1-800mg/L	2
	EC50	72	Algae or other aquatic plants	1-840mg/L	2
	NOEC	24	Crustacea	>1-mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
water					
	LC50	96	Fish	897.520mg/L	3
	EC50	96	Algae or other aquatic plants	8768.874mg/L	
Legend:	Extracted from	1. IUCLID Toxicity Data 2. Europe ECHA Regi	stared Substances - Ecotovicological Informa	tion - Aquatic Toxicit	
Legend.			Suite		
	V3.12 (QSAR) - Assessment	Aquatic Toxicity Data (Estimated) 4. US EPA, I	Ecotox database - Aquatic Toxicity Data 5. EC	ETOC Aquatic Haza	ard
		apan) - Bioconcentration Data 7. METI (Japan)	- Bioconcentration Data 8. Vendor Data		
larmful to aquatic organisms.					
or Ethanol: log Kow: - 0.31 to -0.32; Koc 1:					
Estimated BCF= 3;					
lalf-life (hr) air: 144;	4;				
lalf-life (hr) H2O surface water: 14					
lenry's atm m3 /mol: 6.29E-06;					
lenry's atm m3 /mol: 6.29E-06; 3OD 5 if unstated: 0.93- .67,63% COD: 1.99-2.11,97%; 'hOD : 2.1.			a ana tin bat ka ana ang tin . Ethan ti		ala ana h-1116 - 1
lenry's atm m3 /mol: 6.29E-06; 3OD 5 if unstated: 0.93- .67,63% COD: 1.99-2.11,97%; 'hOD : 2.1. Environmental Fate: Terrestrial - E		degrades in soil but may leach into ground wate is expected to be an important fate process. Th			

# Persistence and degradability

Ingredient	Persistence: Water/Soil Persistence: Air	
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
ethanol	LOW (Half-life = 2.17 days) LOW (Half-life = 5.08 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)	
ethanol	LOW (LogKOW = -0.31)	

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ethylene glycol monobutyl ether	LOW (BCF = 2.51)		
water	LOW (LogKOW = -1.38)		
Mobility in soil			
Ingredient	Mobility		
isopropanol	HIGH (KOC = 1.06)		
ethanol	HIGH (KOC = 1)		
ethylene glycol monobutyl ether	HIGH (KOC = 1)		
water	LOW (KOC = 14.3)		
SECTION 13 DISPOSAL CO	NSIDERATIONS		

ste treatment methods Product / Packaging disposal	<ul> <li>Containers may still present a chemical hazard/ danger when empty.</li> <li>Return to supplier for reuse/ recycling if possible.</li> <li>Otherwise: <ul> <li>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 sam product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>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.</li> <li>A Hierarchy of Controls seems to be common - the user should investigate: <ul> <li>Reduction</li> <li>Reuse</li> <li>Recycling</li> <li>Disposal (if all else fails)</li> </ul> </li> <li>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.</li> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sever may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Authority for disposal.</li> <li>Bury or incinerate residue at an approved site.</li> </ul> </li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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# 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

ISOPROPANOL IS FOUND ON THE FOLLOWING REGULATORY LISTS	
Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List	IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes Australia Exposure Standards	IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals	IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures
Australia Inventory of Chemical Substances (AICS)	containing at least 99% by weight of components already assessed by IMO, presenting safety hazards
GESAMP/EHS Composite List - GESAMP Hazard Profiles	
IMO IBC Code Chapter 17: Summary of minimum requirements	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

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		Print Date: 23/01/2020 Monographs
IMO IBC Code Chapter 18: List of	products to which the Code does not apply	International Air Transport Association (IATA) Dangerous Goods Regulations
		International Maritime Dangerous Goods Requirements (IMDG Code)
		United Nations Recommendations on the Transport of Dangerous Goods Model Regulations
ETHANOL IS FOUND ON THE FO	DLLOWING REGULATORY LISTS	
Australia Dangerous Goods Code	(ADG Code) - Dangerous Goods List	IMO IBC Code Chapter 18: List of products to which the Code does not apply
Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes Australia Exposure Standards		IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures
Australia Hazardous Chemical Inform	mation System (HCIS) - Hazardous Chemicals	containing at least 99% by weight of components already assessed by IMO
Australia Inventory of Chemical Sub- Australia Standard for the Uniform Appendix B (Part 3)	stances (AICS) Scheduling of Medicines and Poisons (SUSMP) -	IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards
GESAMP/EHS Composite List - GE IMO IBC Code Chapter 17: Summ		International Air Transport Association (IATA) Dangerous Goods Regulations International Maritime Dangerous Goods Requirements (IMDG Code)
		United Nations Recommendations on the Transport of Dangerous Goods Model Regulations
ETHYLENE GLYCOL MONOBUT	YL ETHER IS FOUND ON THE FOLLOWING REGUL	LATORY LISTS
Australia Dangerous Goods Code	(ADG Code) - Dangerous Goods List	GESAMP/EHS Composite List - GESAMP Hazard Profiles
Australia Dangerous Goods Code (A	ADG Code) - List of Emergency Action Codes	IMO IBC Code Chapter 17: Summary of minimum requirements
Australia Exposure Standards		IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
		Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Inventory of Chemical Su		International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
A second and the second s	Monographs	International Air Transport Association (IATA) Dangerous Goods Regulations
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Part 2, Section Seven - Appendix I		International Maritime Dangerous Goods Requirements (IMDG Code)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6		United Nations Recommendations on the Transport of Dangerous Goods Model Regulations
WATER IS FOUND ON THE FOLL	LOWING REGULATORY LISTS	
	ubstances (AICS)	IMO IBC Code Chapter 18: List of products to which the Code does not apply
Australia Inventory of Chemical Su		
Australia Inventory of Chemical Su National Inventory Status		
·	Status	

Canada - DSL	Yes	
Canada - NDSL	No (ethanol; water; isopropanol; ethylene glycol monobutyl ether)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - ARIPS	Yes	
Legend:	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 brackets)	
SECTION 48 OTHER INCOR		

# **SECTION 16 OTHER INFORMATION**

Revision Date	23/01/2020
Initial Date	27/01/2015

### Auto Klene Be-Dazzled

### Print Date: 23/01/2020

### SDS Version Summary

Version	Issue Date	Sections Updated
1.3.1.1.1	23/01/2020	Acute Health (skin), Classification, First Aid (eye), First Aid (skin), Ingredients, Physical Properties
Other information		

### Other information

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.

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.

# Auto Klene Be-Dazzled

Print Date: 23/01/2020

end of SDS