Auto Klene Solutions

Chemwatch Hazard Alert Code: 2

requirements

S.GHS.AUS.EN

Chemwatch: 5250-75F Issue Date: 18/04/2017 Version No: 2.1.1.1 Print Date: 01/05/2017 Safety Data Sheet according to WHS and ADG

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

Product Identifier	
Product name	Auto Klene AK10 FAST CUT PASTE
Synonyms	Not Available
Other means of identification	AK10-3
Relevant identified uses of th	e substance or mixture and uses advised against
Relevant identified uses	Use according to manufacturer's directions.
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	+61 3 8761 1900
Fax	+61 3 8761 1955
Website	https://www.autoklene.com/msds/
Email	Not Available
Emergency telephone numbe	er
Association / Organisation	Not Available
Emergency telephone numbers	131 126 (Poisons Information Centre)
Other emergency telephone numbers	0800 764 766 (New Zealand Poisons Information Centre)
SECTION 2 HAZARDS ID	ENTIFICATION

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

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

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Poisons Schedule	Not Applicable
[1] Classification	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
Label elements	
Hazard pictogram(s)	<u>(1)</u>
SIGNAL WORD	WARNING
Hazard statement(s)	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
Н335	May cause respiratory irritation.
Precautionary statement(s) P	revention
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement(s) R	esponse
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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
Precautionary statement(s) S	torage
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
Precautionary statement(s) D) Disposal
P501	Dispose of contents/container in accordance with local regulations.
SECTION 3 COMPOSITIO	N / INFORMATION ON INGREDIENTS

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Substances

See section below for composition of Mixtures

Mixtures

WIIALUIGS	ixtures			
CAS No	%[weight]	Name		
1344-28-1.	<50%	aluminium oxide		
8042-47-5	<10	white mineral oil (petroleum)		
56-81-5	<10	glycerol		
64742-47-8	<10	distillates, petroleum, light, hydrotreated		
8001-79-4	<1	castor oil		
102-71-6	<1	triethanolamine		
7732-18-5	>50	<u>water</u>		

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ► Wash out immediately with fresh running water. ► Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ► Seek medical attention without delay; if pain persists or recurs seek medical attention. ► Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor, without delay.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ► Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ► Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

- Manifestation of aluminium toxicity include hypercalcaemia, anaemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asterixis, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur.
- Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminium loads are excessive.
- ▶ Serum aluminium levels above 60 ug/ml indicate increased absorption. Potential toxicity occurs above 100 ug/ml and clinical symptoms are present when levels exceed 200 ug/ml. ▶ Deferoxamine has been used to treat dialysis encephalopathy and osteomalacia. CaNa2EDTA is less effective in chelating aluminium. [Ellenhorn and Barceloux: Medical Toxicology]

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. dryschemical powder. • carbon dioxide. **Special hazards arising from the substrate** or mixture

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Fire Incompatibility	None known.
Advice for firefighters	
Fire Fighting	 ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water courses. ▶ Use water delivered as a fine spray to control fire and cool adjacent area. ▶ DO NOT approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	► 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) , acrolein , hydrogen chloride , phosgene , hydrogen fluoride , other pyrolysis products typical of burning organic material.
HAZCHEM Not Applicable	

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures See section

Environmental precautions

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

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▶ DO NOT allow clothing wet with material to stay in contact with skin ▶ Avoid all personal contact, including inhalation. • Wear protective clothing when risk of exposure occurs. Safe handling ▶ Use in a well-ventilated area. • Prevent concentration in hollows and sumps. • DO NOT enter confined spaces until atmosphere has been checked. \blacktriangleright DO NOT allow material to contact humans, exposed food or food utensils. • Avoid contact with incompatible materials. ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ No smoking, naked lights or ignition sources. ▶ Store in a cool, dry, well-ventilated area. Other information ▶ 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 ▶ Metal can or drum ▶ Packaging as recommended by manufacturer.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

▶ Check all containers are clearly labelled and free from leaks.

▶ Avoid reaction with oxidising agents

Control parameters

Storage incompatibility

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Suitable container

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	aluminium oxide	Aluminium oxide	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	white mineral oil (petroleum)	White spirits	790 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	glycerol	Glycerin mist	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	distillates, petroleum, light, hydrotreated	Oil mist, refined mineral	5 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	triethanolamine	Triethanolamine	5 mg/m3	Not Available	Not Available	Sen

EMERGENCY LIMITS

Ingredient	Material name		TEEL-1	TEEL-2	TEEL-3
aluminium oxide	aluminium oxide Aluminum oxide; (Alumina) white mineral oil (petroleum) Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene) glycerol Glycerine (mist); (Glycerol; Glycerin) triethanolamine Triethanolamine; (Trihydroxytriethylamine)		5.7 mg/m3	15 mg/m3	25 mg/m3
			300 mg/m3	1,800 mg/m3	29500 mg/m3
glycerol			45 mg/m3	860 mg/m3	2,500 mg/m3
triethanolamine			15 mg/m3	240 mg/m3	1,500 mg/m3
Ingredient Original IDLH Revised IDLH					
aluminium oxide	luminium oxide Not Available Not Available				

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white mineral oil (petroleum)	29,500 mg/m3	20,000 mg/m3
glycerol	Not Available	Not Available
distillates, petroleum, light, hydrotreated	Not Available	Not Available
castor oil	Not Available	Not Available
triethanolamine	Not Available	Not Available
water	Not Available	Not Available

Exposure controls

Appropriate 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. 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









Eye and face protection

- ▶ 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 moisturizer is recommended.

Body protection

See Other protection below

Other protection

- Overalls.P.V.C. apron.
- Barrier cream
- Skin cleansing cream.
- ▶ Eye wash unit.

Thermal hazards

Not Available

Recommended material(s)

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

GLOVE SELECTION INDEX

* Where the glove is to be used on a short term, casual or infrequent basis, factors

Glove selection is based on a modified presentation of the: such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves "Forsberg Clothing Performance Index". which might otherwise be unsuitable following long-term or frequent use. A qualified The effect(s) of the following substance(s) are taken into account in the practitioner should be consulted. computergenerated selection:

Auto Klene AK10 LIQUID – CARBON CUT

Material	СРІ

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BUTYL	С	SECTION 9 PHYSICA Respiratory protection Type AK-P Filter of sufficien				
NATURAL RUBBER	С	ANSI Z88 or national equiva	the breathing zone	zone, approaches or tion is required. Degree of		
NATURAL+NEOPRENE	С	protection varies with both fa				
NEOPRENE	С	Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator	
NEOPRENE/NATURAL	С	up to 10 x ES	AK-AUS P2	-	AK-PAPR-AUS / Class 1 P2	
NITRILE	С	·				
				AK-AUS /		
PVA	С	up to 50 x ES	-	Class P2	-	
PVC	С	up to 100 x ES	-	AK-2 P2	AK-PAPR-2 P2 ^	
WITON		A(All stands) One i	-	^ - Full-face		
VITON	С	A(All classes) = Organic vap	A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or * CPI - Chemwatch Performance			
##castor	oil	cyanide(HCN), B3 = Acid ga	hydrogen as or hydrogen cyar			
		, ,,	, , ,	ction_dioxide(SO2		

A: Best Selection dioxide(SO2), G = B: Satisfactory; may degrade after 4 hours continuous immersion Agricultural

chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, C: Poor to Dangerous Choice for other than short term immersion MB =

Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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Inhaled	Not normally a hazard due to non-volatile nature of product The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any preexisting dermatitis condition 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 mate any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.

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Reactivity	See section 7		
Information on basic physica	al and chemical properties		
Appearance	Off white, creamy thick paste with a little odour; mixes wi	th water. Viscosity: 8500-9500 cp	s (20degC)
Physical state	Paste	Relative density (Water = 1)	0.95-1.10
Odour	Not Available	Partition coefficient noctanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	8-9	Decomposition temperature	Not Available
Melting point / freezing point (°C)	0	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>95	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	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 (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
OFOTION 40 OTABU ITV	ND DE ACTIVITY		

SECTION 10 STABILITY AND REACTIVITY

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

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Hazardous decomposition products

See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

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Chronic	There has been some concern that this material can Substance accumulation, in the human body, may or	t in airways disease, involving difficulty breathing and related whole-body problems. cause cancer or mutations but there is not enough data to make an assessment. ccur and may cause some concern following repeated or long-term occupational expos- nected with the degenerative brain disease Alzheimer's Disease.	ure.
	TOXICITY	IRRITATION	Dermal (Rabbit) LD5 >2000 mg/kg Not Available Oral
Auto Klene AK10 FAST CUT PASTE	[2]		(Rat) LD50: >5000 mg/kg[2]
	TOXICITY	IRRITATION	
aluminium oxide	[1] Oral (rat) LD50: >2000 mg/kgNot Available		
	TOXICITY	IRRITATION	Dermal (rabbit) LD5 >2000 mg/kg Not Available
white mineral	[1]		Oral (rat) LD50: >50
oil (petroleum)	19		mg/kg[1]
	TOXICITY	IRRITATION	
glycerol	[2] Oral (rat) LD50: 12600 mg/kgNot Available		
	TOXICITY	IRRITATION	Dermal (rabbit) LD5 >2000 mg/kg Not Available
distillates, petroleum, light,	[1]		Oral (rat) LD50: >50
hydrotreated		1	mg/kg[1]
	TOXICITY	IRRITATION	
	Not Available	Eye (rabbit): 500 mg mild	
castor oil		,	
		Skin (human): 50 mg/48h mild	

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TOXICITY IRRITATION dermal (rat) LD50: >16000 mg/kg,[2] Eye (rabbit): 0.1 ml -Oral (rat) LD50: 5560 mg/kg(calc.)^[2]-Eye (rabbit): 10 mg - mild triethanolamine Eye (rabbit): 5.62 mg - SEVERE minor conjunctival irritation no irritation * Skin (human): 15 mg/3d (int)-mild Skin (rabbit): 4 h occluded

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Water

Not Available

Legend: 1 Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

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The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since: The adverse effects of these materials are associated with undesirable components, and . The levels of the undesirable components are inversely related to the degree of processing; Distillate base oils receiving the same degree or extent of processing will have similar toxicities; The potential toxicity of residual base oils is independent of the degree of processing the oil receives. The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing. Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the WHITE MINERAL OIL belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size. Toxicity (PETROLEUM) testing has consistently shown that lubricating base oils have low acute toxicities. For highly and severely refined distillate base oils: In animal studies, the acute, oral, semilethal dose is >5g/kg body weight and the semilethal dose by skin contact is >2g/kg body weight. The semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials have varied from "non-irritating" to "moderately irritating" when tested for skin and eye irritation. Testing for sensitisation has been negative. The effects of repeated exposure vary by species; in animals, effects to the testes and lung have been observed, as well as the formation of granulomas. In animals, these substances have not been found to cause reproductive toxicity or significant increases in birth defects. They are also not considered to cause cancer, mutations or chromosome aberrations. Oral (rat) TCLo: 92000 mg/kg/92D-Cont. Generally the toxicity and irritation is of low order. White oils and highly/solvent refined oils have not shown the long term risk of skin cancer that follows persistent skin contamination with some other mineral oils, due in all probability to refining that produces low content of both polyaromatics (PAH) and benz-alpha-pyrenes (BaP) At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it is of low toxicity. There is no significant evidence to suggest that it causes cancer, genetic, reproductive or developmental toxicity. **GLYCEROL** DISTILLATES. Kerosene may produce varying ranges of skin irritation, and a reversible eve irritation (if eves are washed). Skin may be cracked or flaky and/or PETROLEUM. leathery, with crusts and/or hair loss. It may worsen skin cancers. There may also be loss of weight, discharge from the nose, excessive tiredness, and wheezing. The individual may be pale. There may be increase in the weight of body organs. There was no evidence of harm to pregnancy. LIGHT. HYDROTREATED The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe 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. Repeated exposures may produce severe ulceration. Some tumorigenic effects have been reported in animal studies The castor seed contains ricin, a toxic protein. Heating during the oil extraction process denatures and inactivates the protein. However, harvesting castor beans may not be without risk. Allergenic compounds found on the plant surface can cause permanent nerve damage, making the harvest of castor beans a human health risk. The United States Food and Drug Administration (FDA) has categorized castor oil as "generally recognized as safe and effective" (GRASE) for over-the-counter use as a laxative CASTOR OIL with its major site of action the small intestine where it is digested into ricinoleic acid. Despite castor oil being widely used to start labor in pregnant women, to date there is not enough research to show whether it is effective to ripen the cervix or induce labour Due to its foul taste a heavy dose of castor oil was formerly used as a humiliating punishment for children and adults. Victims of this treatment did sometimes die, as the dehydrating effects of the oil-induced diarrhea; however, even those victims who survived had to bear the humiliation of the laxative effects resulting from excessive consumption of the oil. The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. Overexposure to most of these materials may cause adverse health Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. TRIETHANOLAMINE Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Studies done show that triethanolamine is of low toxicity following high dose exposure by swallowing, skin contact or inhalation. It has not been shown to cause cancer, genetic defects, reproductive or developmental toxicity. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. Lachrymation, diarrhoea, convulsions, urinary tract changes, changes in bladder weight, changes in testicular weight, changes in

thymus weight, changes in liver weight, dermatitis after systemic exposure, kidney, ureter, bladder tumours recorded. Equivocal tumourigen by

RTECS criteria. Dermal rabbit value quoted above is for occluded patch in male or female animals * Union Carbide

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ALUMINIUM OXIDE & DISTILLATES, PETROLEUM. LIGHT. No significant acute toxicological data identified in literature search. **HYDROTREATED &** WATER WHITE MINERAL OIL The substance is classified by IARC as Group 3: (PETROLEUM) & NOT classifiable as to its carcinogenicity to humans. TRIÈTHANOLAMINE Evidence of carcinogenicity may be inadequate or limited in animal testing. 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 GLYCFROL & on lung function tests, moderate to severe TRIETHANOL MINE bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. wing RADS (or asthma) follo 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. **Acute Toxicity** Carcinogenicity Skin Irritation/Corrosion Reproductivity Serious Eye STOT - Single Exposure Damage/Irritation Respiratory or Skin sensitisation 0 STOT - Repeated Exposure 0 Mutagenicity 0 **Aspiration Hazard** Data available but does not fill the criteria for Legend: classification – Data available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity					
Auto Klene AK10 FAST CUT PASTE			;		
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	NotNotNot	Not ApplicableNot Applicable	ApplicableApplicableApplicable		
aluminium oxide	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE

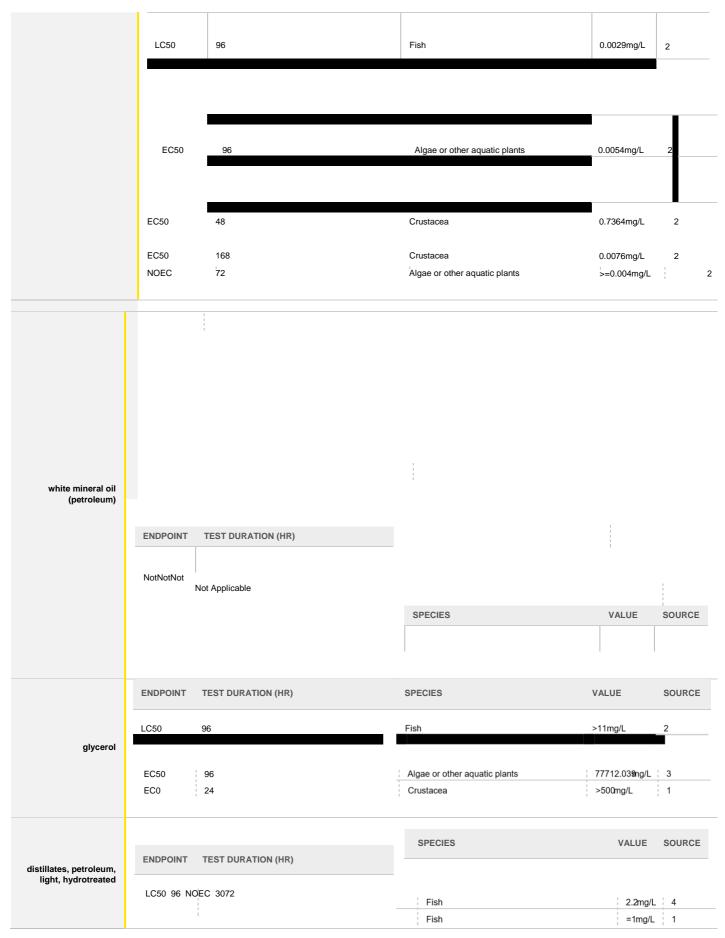
- Data Not Available to make classification

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Chemwatch: 5250-75F Page 17 of 24 Issue Date: 18/04/2017 Version No: 2.1.1.1 Print Date: 01/05/2017 castor oil **ENDPOINT TEST DURATION (HR) SPECIES** VALUE SOURCE NotNotNot Not ApplicableNot Applicable Applicable Applicable ApplicableENDPOINT TEST DURATION (HR) **SPECIES** VALUE SOURCE LC50 96 Fish 11800mg/L 4 96 EC50 Algae or other aquatic plants 169mg/L 1 triethanolamine 1 EC10 96 Algae or other aquatic plants 7.1mg/L NOEC 504 Crustacea 16mg/L 1 water ENDPOINT TEST DURATION (HR) SPECIES VALUE SOURCE NotNotNot Not ApplicableNot Applicable ApplicableApplicable Legend: Extracted I om 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) -Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

for lubricating oil base stocks:

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Vapor Pressure Vapor pressures of lubricating base oils are reported to be negligible. In one study, the experimentally measured vapour pressure of a solvent-dewaxed heavy paraffinic distillate base oil was 1.7 x 10exp-4 Pa. Since base oils are mixtures of C15 to C50 paraffinic, naphthenic, and aromatic hydrocarbon isomers, representative components of those structures were selected to calculate a range of vapor pressures. The estimated vapor pressure values for these selected components of base oils ranged from 4.5 x 10exp-1 Pa to 2 x 10exp-13Pa. Based on Dalton's Law the expected total vapour pressure for base oils would fall well below minimum levels (10exp-5 Pa) of recommended experimental procedures.

Partition Coefficient (log Kow): In mixtures such as the base oils, the percent distribution of the hydrocarbon groups (i.e., paraffins, naphthenes, and aromatics) and the carbon chain lengths determines in-part the partitioning characteristics of the mixture. Generally, hydrocarbon chains with fewer carbon atoms tend to have lower partition coefficients than those with higher carbon numbers. However, due to their complex composition, unequivocal determination of the log Kow of these hydrocarbon mixtures cannot be made.

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For Glycerol: Log Kow: -2.66 to -2.47, Atmospheric Fate: Glycerol is broken down in the air by hydroxyl radicals the half-life for this process is 6.8 hours. However, only a negligible amount of the substance will move to the atmospheric compartment. Terrestrial Fate: Only a negligible amount of glycerol will move into the soil compartment, if released into the environment. Aquatic Fate: Glycerol is considered to be readily biodegradable in the aquatic environment. Pre-adapted microorganisms can break glycerol down rapidly in oxygenated/low oxygen waters. The substance is not expected to react with water. When released to water, 100% of the substance will remain in the water compartment - only negligible amounts will be distributed to sediment. Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.). For Aluminium and its Compunds and Salts:

Environmental Fate - As an element, aluminium cannot be degraded in the environment, but may undergo various precipitation or ligand exchange reactions. Aluminium in compounds has only one oxidation state (+3), and would not undergo oxidation-reduction reactions under environmental conditions. Aluminium can be complexed by various ligands present in the environment (e.g., fulvic and humic acids). The solubility of aluminium in the environment will depend on the ligands present and the pH. Atmospheric Fate: Air Quality Standards: none available.

Aquatic Fate: The hydrated aluminium ion undergoes hydrolysis. The speciation of aluminium in water is pH dependent. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
glycerol	LOW	LOW
triethanolamine	LOW	LOW
water	LOW	LOW
Bioaccumulative potential		
glycerol	LOW (LogKOW = -1.76)	
distillates, petroleum, light, hydrotreated	LOW (BCF = 159)	
triethanolamine	LOW (BCF = 3.9)	
water	LOW (LogKOW = -1.38)	

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Ingredient	Mobility
glycerol	HIGH (KOC = 1)
triethanolamine	LOW (KOC = 10)
water	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

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

Reduction •

Reuse

▶ Recycling

▶ Disposal (if all else fails)

Product / Packaging

disposal

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

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

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- ▶ It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ${}_{\mbox{\sc b}}$ Where in doubt contact the responsible authority.
- \blacktriangleright Recycle wherever possible or consult manufacturer for recycling options. \blacktriangleright

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

Ingredient	Bioaccumulation	

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SECTION 15 REGULATORY INFORMATION

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

ALUMINIUM OXIDE(1344- 28 1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

Australia Exposure Standards

	Name	CAS No				
--	------	--------	--	--	--	--

glycerol 56-81-5, 29796-42-7, 30049-52-6, 37228-54-9, 75398-78-6, 78630-16-7, 8013-25-0

WHITE MINERAL OIL (PETROLEUM)(8042 - 47 - 5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

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

Monographs

GLYCEROL(56-81-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED(64742-47-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

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

Monographs

CASTOR OIL(8001-79-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

TRIETHANOLAMINE(102-71-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

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

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

Australia Inventory of Chemical	Substances (AICS)
National Inventory	Status
Australia - AICS	Y
Canada - DSL	Υ
Canada - NDSL	N (glycerol; triethanolamine; water; distillates, petroleum, light, hydrotreated; aluminium oxide; castor oil; white mineral oil (petroleum))
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (glycerol; triethanolamine; water; distillates, petroleum, light, hydrotreated; aluminium oxide; castor oil; white mineral oil (petroleum))
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

castor oil

8001-79-4, 64147-40-6, 8006-52-8, 8013-56-7, 8015-57-4, 8021-37-2, 8036-08-6, 8041-95-0, 89958-32-7

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.

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