

Nowchem Version No: 1.3

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 4 Issue Date:17/05/2016

Revision Date: 18/03/2021 L.GHS.AUS.EN

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

Product Identifier	
Product name	Mildew & Fungus Cleaner
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S.
Other means of identification	Not Available

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

Relevant identified uses Heavy Duty Mould and Fungus Cleaner.

Details of the supplier of the safety data sheet		
Registered company name	Nowchem	
Address	112A Albatross Road NSW Australia	
Telephone	(02) 4421 4099	
Fax	(02) 4421 4932	
Website	www.nowchem.com.au	
Email	sales@nowchem.com.au	

Emergency telephone number

Association / Organisation	Nowchem
Emergency telephone numbers	(02) 4421 4099
Other emergency telephone numbers	0413 809 255

SECTION 2 Hazards identification

Classification of the substance or mixture

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

ChemWatch Hazard Ratings

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

Poisons Schedule	6
Classification ^[1]	Corrosive to Metals Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Hazard pictogram(s)	
Signal word	Danger

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary statement(s) Prevention

P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/
P234	Keep only in original packaging.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

Store locked up.

Precautionary statement(s) Disposal

P501 Disp

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

SECTION 3 Composition / information on ingredients

P405

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
9016-45-9	<10	nonylphenol ethoxylates
68424-85-1	<10	benzyl C12-16-alkyldimethylammonium chloride
1310-73-2	<10	sodium hydroxide

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.

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. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. This must definitely be left to a doctor or person authorised by him/her. (ICSC13719)
Ingestion	 For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. 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. Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to strong acids:

- + Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.

Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues. INGESTION:

- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.
- Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.
- Charcoal has no place in acid management.
- Some authors suggest the use of lavage within 1 hour of ingestion.

SKIN:

Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.

Deep second-degree burns may benefit from topical silver sulfadiazine

EYE:

- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjuctival cul-de-sacs. Irrigation should last at least 20-30 minutes. DO NOT use neutralising agents or any other additives. Several litres of saline are required.
- Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
- Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).

[Ellenhorn and Barceloux: Medical Toxicology]

- For acute or short-term repeated exposures to highly alkaline materials:
- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

INGESTION:

Milk and water are the preferred diluents

- No more than 2 glasses of water should be given to an adult.
- Neutralising agents should never be given since exothermic heat reaction may compound injury.
- * Catharsis and emesis are absolutely contra-indicated.
- * Activated charcoal does not absorb alkali.

* Gastric lavage should not be used.

Supportive care involves the following:

- Withhold oral feedings initially.
- If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).
- SKIN AND EYE:

Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 Firefighting measures

Extinguishing media

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

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

Continued...

Advice for firefighters

Fire Fighting	
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of containers. May emit acrid smoke and corrosive fumes. Combustion products include: carbon dioxide (CO2) other pyrolysis products typical of burning organic material.
HAZCHEM	2R

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 Sp	 Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. 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. 				
	Chemical Class:acidic compounds, organic For release onto land: recommended sorbents listed in order of priority.				
	TYPE RANK APPLICATION COLLECTION LIMITATIONS				
	LAND SFILL - SWIALL				
	wood fiber - pillow 1 throw pitchfork R, P, DGC, RT				
	cross-linked polymer - particulate 1 shovel shovel R,W,SS				
	cross-linked polymer - pillow 1 throw pitchfork R, DGC, RT				
	sorbent clay - particulate 2 shovel shovel R, I, P				
	toamed glass - pillow 2 throw pitchfork R, P, DGC, RT				
	wood noer - particulate 3 shovel shovel R, W, P, DGC				
	LAND SPILL - MEDIUM				
	cross-linked polymer -particulate 1 blower skiploader R, W, SS				
	polypropylene - particulate 2 blower skiploader W, SS, DGC				
	sorbent clay - particulate 2 blower skiploader R, I, P				
Maior St	cross-linked polymer - pillow 3 throw skiploader R, DGC, RT				
	polypropylene - mat 3 throw skiploader W, SS, DGC				
	expanded mineral - particulate 3 blower skiploader R, I, W, P, DGC				
	Legend DGC: Not effective where ground cover is dense R; Not reusable I: Not incinerable P: Effectiveness reduced when rainy RT:Not effective where terrain is rugged SS: Not for use within environmentally sensitive sites W: Effectiveness reduced when windy Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control; R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988 Charmingle Cleanup heads				
	For release onto land: recommended sorbents listed in order of priority.				
	SORBENT TYPE RANK APPLICATION COLLECTION LIMITATIONS				
	LAND SPILL - SMALL				
	cross-linked polymer - particulate 1 shovel shovel R,W,SS				
	cross-linked polymer - pillow 1 throw pitchfork R, DGC, RT				

sorbent clay - particulate	2	shovel	shovel	R, I, P
foamed glass - pillow	2	throw	pitchfork	R, P, DGC, F
expanded minerals - particulate	3	shovel	shovel	R, I, W, P, D0
foamed glass - particulate	4	shovel	shovel	R, W, P, DGC
LAND SPILL - MEDIUM	1	blower	skiploader	RW SS
eree minee performer permeasure				,
sorbent clay - particulate	2	blower	skiploader	R, I, P
sorbent clay - particulate expanded mineral - particulate	2 3	blower blower	skiploader skiploader	R, I, P R, I,W, P, D
sorbent clay - particulate expanded mineral - particulate cross-linked polymer - pillow	2 3 3	blower blower throw	skiploader skiploader skiploader	 R, I, P R, I,W, P, D R, DGC, RT
sorbent clay - particulate expanded mineral - particulate cross-linked polymer - pillow foamed glass - particulate	2 3 3 4	blower blower throw blower	skiploader skiploader skiploader skiploader	 R, I, P R, I,W, P, D R, DGC, RT R, W, P, DG

DGC: Not effective where ground cover is dense

- R; Not reusable
- I: Not incinerable
- P: Effectiveness reduced when rainy
- RT:Not effective where terrain is rugged SS: Not for use within environmentally sensitive sites
- W: Effectiveness reduced when windy
- Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control;

R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988

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

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Other information	 Store in original containers. Keep containers securely sealed. 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. DO NOT store near acids, or oxidising agents No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable container	 DO NOT use aluminium or galvanised containers Check regularly for spills and leaks Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. For low viscosity materials Drums and jerricans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.): Removable head packaging; Cans with friction closures and low pressure tubes and cartridges may be used. Where combination packages are used, and the inner packages are of glass, porcelain or stoneware, there must be sufficient inert cushioning material in contact with inner and outer packages unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.
	Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.

Phenols are incompatible with strong reducing substances such as hydrides, nitrides, alkali metals, and sulfides.

- ▶ Avoid use of aluminium, copper and brass alloys in storage and process equipment.
- Heat is generated by the acid-base reaction between phenols and bases.
- Phenols are sulfonated very readily (for example, by concentrated sulfuric acid at room temperature), these reactions generate heat.
 - Phenols are nitrated very rapidly, even by dilute nitric acid.
- Nitrated phenols often explode when heated. Many of them form metal salts that tend toward detonation by rather mild shock.
- Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.
- Avoid contact with copper, aluminium and their alloys.
- Segregate from alkalies, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates.

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	sodium hydroxide	Sodium hydroxide		Not Available		Not Available		2 mg/m3	Not Available
Emergency Limits									
ngredient	TEEL-1		TEEL-2				TEEL	-3	
nonylphenol ethoxylates	43 mg/m3		470 mg/	m3			5,400	mg/m3	
penzyl C12-16- alkyldimethylammonium chloride	1.3 mg/m3		14 mg/m	13			84 mg	ı/m3	
odium hydroxide	Not Available		Not Avai	lable			Not A	vailable	
	Source Source Standards St	Ingredient Australia Exposure Standards sodium hydroxide Emergency Limits TEEL-1 nonylphenol ethoxylates 43 mg/m3 enzyl C12-16- Ilkyldimethylammonium chloride 1.3 mg/m3 odium hydroxide Not Available	SourceIngredientMaterial nameAustralia Exposure Standardssodium hydroxideSodium hydroxideStaregency LimitsTEEL-1Inonylphenol ethoxylates43 mg/m3Inenzyl C12-16- Ilkyldimethylammonium chloride1.3 mg/m3Indium hydroxideNot Available	Ingredient Material name Australia Exposure Standards sodium hydroxide Sodium hydroxide Stargency Limits TEEL-1 TEEL-2 nonylphenol ethoxylates 43 mg/m3 470 mg/r enzyl C12-16- Ilkyldimethylammonium chloride 1.3 mg/m3 14 mg/rr odium hydroxide Not Available Not Available	Source Ingredient Material name TWA Australia Exposure Standards sodium hydroxide Sodium hydroxide Not Available Imagedient TEEL-1 TEEL-2 TEEL-2 Imagedient 43 mg/m3 470 mg/m3 14 mg/m3 Imagedient hydroxide Not Available Not Available	IngredientMaterial nameTWAAustralia Exposure Standardssodium hydroxideSodium hydroxideNot AvailableImagedientTEEL-1TEEL-2TEEL-2Inonylphenol ethoxylates43 mg/m3470 mg/m3Imagedient (Jkyldimethylammonium chloride)1.3 mg/m314 mg/m3Inonylphonium chlorideNot AvailableNot Available	Not AvailableIngredientMaterial nameTWASTELAustralia Exposure Standardssodium hydroxideSodium hydroxideNot AvailableNot AvailableIterregency LimitsIngredientTEEL-1TEEL-2TEEL-2Itonylphenol ethoxylates43 mg/m3470 mg/m3STELIterregel C12-16- Ikyldimethylammonium chloride1.3 mg/m314 mg/m3STELOdium hydroxideNot AvailableNot AvailableSTEL	Ingredient Material name TWA STEL Australia Exposure Standards sodium hydroxide Sodium hydroxide Not Available Not Available Imgredient TEEL-1 TEEL-2 TEEL-2 TEEL-2 TEEL-2 Inonylphenol ethoxylates 43 mg/m3 470 mg/m3 5,400 84 mg Ikyldimethylammonium chloride 1.3 mg/m3 14 mg/m3 84 mg 84 mg	Not water all a constraintsIngredientMaterial nameTWASTELPeakNot Availablesodium hydroxideSodium hydroxideNot AvailableNot Available2 mg/m3IngredientTEEL-1TEEL-2TEEL-2TEEL-3nonylphenol ethoxylates43 mg/m3470 mg/m3 $5,400$ mg/m3nenzyl C12-16- lkyldimethylammonium chloride1.3 mg/m3 $14 mg/m3$ $14 mg/m3$ $84 mg/m3$ odium hydroxideNot AvailableNot AvailableNot Available $84 mg/m3$

Ingredient	Original IDLH	Revised IDLH
nonylphenol ethoxylates	Not Available	Not Available
benzyl C12-16- alkyldimethylammonium chloride	Not Available	Not Available
sodium hydroxide	10 mg/m3	Not Available

Occupational Exposure Banding					
Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit			
nonylphenol ethoxylates	E	≤ 0.1 ppm			
benzyl C12-16- alkyldimethylammonium chloride	с	> 0.1 to \leq milligrams per cubic meter of air (mg/m ³)			
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.				

MATERIAL DATA

for sodium hydroxide:

The TLV-C is recommended based on concentrations that produce noticeable but not excessive, ocular and upper respiratory tract irritation.

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. 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. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying 'escape'					
Appropriate engineering	Type of Contaminant:	Air Speed:				
controls	solvent, vapours, degreasing etc., evaporating from tank	0.25-0.5 m/s (50-100 f/min.)				
	aerosols, fumes from pouring operations, intermittent cor drift, plating acid fumes, pickling (released at low velocity	0.5-1 m/s (100-200 f/min.)				
	direct spray, spray painting in shallow booths, drum filling generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)				
	grinding, abrasive blasting, tumbling, high speed wheel g very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)				
	Within each range the appropriate value depends on:					
	Lower end of the range	Upper end of the range				
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents				

	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity					
	3: Intermittent, low production.	3: High production, heavy use					
	4: Large hood or large air mass in motion	4: Small hood-local control only					
	Simple theory shows that air velocity falls rapidly with dista with the square of distance from the extraction point (in sim accordingly, after reference to distance from the contamina 1-2 m/s (200-400 f/min) for extraction of solvents generated producing performance deficits within the extraction appara more when extraction systems are installed or used.	Ince away from the opening of a simple extraction pipe. Velocity generally decre nple cases). Therefore the air speed at the extraction point should be adjusted, ating source. The air velocity at the extraction fan, for example, should be a mini d in a tank 2 meters distant from the extraction point. Other mechanical consider atus, make it essential that theoretical air velocities are multiplied by factors of 1	<i>ay</i> from the opening of a simple extraction pipe. Velocity generally decreases ses). Therefore the air speed at the extraction point should be adjusted, urce. The air velocity at the extraction fan, for example, should be a minimum of ank 2 meters distant from the extraction point. Other mechanical considerations, take it essential that theoretical air velocities are multiplied by factors of 10 or				
Personal protection							
Eye and face protection	 Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure. Chemical goggles.whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection. Alternatively a gas mask may replace splash goggles and face shields. 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. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or 						
Skin protection	See Hand protection below						
Hands/feet protection	 Elbow length PVC gloves When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. NOTE: 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. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. 						
Body protection	See Other protection below						
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure several Eyewash unit. Ensure there is ready access to a safety shower. 	e.					

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear Dark Blue Liquid		
Physical state	Liquid	Relative density (Water = 1)	1.04 - 1.06
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	11.5 - 12.5	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 Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Non Flammable	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%)	11 - 12
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Contact with alkaline material liberates heat
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

Inhaled	 Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Acidic corrosives produce respiratory tract irritation with coughing, choking and mucous membrane damage. Symptoms of exposure may include dizziness, headache, nausea and weakness. In more severe exposures, pulmonary oedema may be evident either immediately or after a latent period of 5-72 hours. Symptoms of pulmonary oedema include a tightness in the chest, dyspnoea, frothy sputum and cyanosis. Examination may reveal hypotension, a weak and rapid pulse and moist rates. Death, due to anoxia, may occur several hours after onset of the pulmonary oedema. Inhalation of alkaline corrosives may produce irritation of the respiratory tract with coughing, choking, pain and mucous membrane damage. Pulmonary oedema may develop in more severe cases; this may be immediate or in most cases following a latent period of 5-72 hours. Symptoms any include a tightness in the chest, dyspnoea, frothy sputum hypotension, a weak and rapid pulse and moist rales. The material has NOT been classified by EC Directives or other classification systems as 'harmful by inhalation'. This is because of the lack of corroborating animal or human evidence. In the absence of such evidence, care should be taken nevertheless to ensure exposure is kept to a minimum and that suitable contro
Ingestion	Ingestion of acidic corrosives may produce circumoral burns with a distinct discolouration of the mucous membranes of the mouth, throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Oedema of the epiglottis may produce respiratory distress and possibly, asphyxia. Nausea, vomiting, diarrhoea and a pronounced thirst may occur. More severe exposures may produce a vomitus containing fresh or dark blood and large shreds of mucosa. Shock, with marked hypotension, weak and rapid pulse, shallow respiration and clammy skin may be symptomatic of the exposure. Circulatory collapse may, if left untreated, result in renal failure. Severe cases may show gastric and oesophageal perforation with peritonitis, fever and abdominal rigidity. Stricture of the oesophageal, gastric and pyloric sphincter may occur as within several weeks or may be delayed for years. Death may be rapid and often results from asphyxia, circulatory collapse or aspiration of even minute amounts. Delayed deaths may be due to peritonitis, severe nephritis or pneumonia. Coma and convulsions may be terminal. Ingestion of alkaline corrosives may produce immediate pain, and circumoral burns. Mucous membrane corrosive damage is characterised by a white appearance and soapy feel; this may then become brown, oedematous and ulcerated. Profuse salivation with an inability to swallow or speak may also result. Even where there is limited or no evidence of chemical burns, both the oesophagus and stomach may experience a burning pain; vomiting and diarrhoea may result in respiratory distress and asphyxia. Marked hypotension is symptomatic of shock; a weak and rapid pulse, shallow respiration and clammy skin may also be evident. Circulatory collapse may occur after weeks or even months and years. Death may be quick and results from asphyxia, circulatory collapse or aspiration of even minute amounts. Death may also be delayed as a result of perforation, pneumonia or the effects of stricture formation. The material may stil
Skin Contact	Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds 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.
Eye	When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation. Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely. Severe burns produce long-lasting and possible irreversible damage. The appearance of the burn may not be apparent for several weeks after the initial contact. The cornea may ultimately become deeply vascularised and opaque resulting in blindness. Direct contact with alkaline corrosives may produce pain and burns. Oedema, destruction of the epithelium, corneal opacification and iritis may occur. In less severe cases these symptoms tend to resolve. In severe injuries the full extent of the damage may not be immediately apparent with late complications comprising a persistent oedema, vascularisation and corneal scarring, permanent opacity, staphyloma, cataract, symblepharon and loss of sight.

Repeated or prolonged exposure to acids may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis. The impact of inhaled acidic agents on the respiratory tract depends upon a number of interrelated factors. These include physicochemical characteristics, e.g., gas versus aerosol; particle size (small particles can penetrate deeper into the lung); water solubility (more soluble agents are more likely to be removed in the nose and mouth). Given the general lack of information on the particle size of aerosols involved in occupational exposures to acids, it is difficult to identify their principal deposition site within the respiratory tract. Acid mists containing particles with a diameter of up to a few micrometers will be deposited in both the upper and lower airways. They are irritating to mucous epithelia, they cause dental erosion, and they produce acute effects in the lungs (symptoms and changes in pulmonary function). AsthmatIcs appear to be at particular risk for pulmonary effects. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population. Chronic Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. Significant symptoms of exposure may persist for extended periods, even after exposure ceases. Symptoms can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes and passive smoking. There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals. Exposure to the material may cause concerns for human fertility, on the basis that similar materials provide some evidence of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects, but which are not a secondary non-specific consequence of other toxic effects. The alkyl phenolics (which may occur as breakdown products of some polyethoxylated surfactants) have been implicated in a phenomenon which has apparently occurred since the mid 1960s, namely lower sperm counts and reduced fertility in males. Nonyl phenol acts like an oestrogen hormone which stimulates breast cells to divide in vitro. When pregnant rats are fed nonylphenols at doses comparable to that at which humans might be exposed, male offspring had significantly smaller testicles and lower sperm counts. Although the human foetus is 'bathed' in naturally occurring oestrogens during pregnancy it is suggested that it has developed a protective mechanism against natural oestrogens but is not safe from synthetic variants. These tend to accumulate in body fats which sets them apart from the natural product. During early pregnancy, fats are broken down and may flood the body with concentrated pollutants. Drinking water may be one source of exposure to alkyl phenols as many polyethoxylated surfactants are discharged to water treatment systems where they undergo degradation TOXICITY IRRITATION Mildew & Fungus Cleaner Not Available Not Available TOXICITY IRRITATION

Dermal (rabbit) LD50: 1.923 mg/kg ^[2]		Eye (rabbit): 5 mg SEVERE
Oral(Rat) LD50; 1310 mg/kg ^[2]		Skin (human): 15 mg/3D mild
ΤΟΧΙΟΙΤΥ	TOXICITY	
Dermal (rabbit) LD50: 1.854 mg/kg ^[1]	Dermal (rabbit) LD50: 1.854 mg/kg ^[1]	
Oral(Rat) LD50; 450 mg/kg ^[1]		
ΤΟΧΙCΙΤΥ	IRRITATION	
Dermal (rabbit) LD50: 1350 mg/kg ^[2]	Eye (rabbit): 0.05 mg/24h SEVERE	
Oral(Rabbit) LD50; 325 mg/kg ^[1]	Eye (rabbit):1 mg/24h SEVERE	
	Eye (rabbit):1 mg/30s rinsed-SEVERE	
	Eye: adverse effect observed (irritating) ^[1]	
	Skin (rabbit): 500 mg/24h SEVERE	
	Skin: advers	se effect observed (corrosive) ^[1]
1. Value obtained from Europe ECHA Registered Su	bstances - Acute toxicity 2.	* Value obtained from manufacturer's SDS. Unless otherwise
	Dermal (rabbit) LD50: 1.923 mg/kg ^[2] Oral(Rat) LD50; 1310 mg/kg ^[2] TOXICITY Dermal (rabbit) LD50: 1.854 mg/kg ^[1] Oral(Rat) LD50; 450 mg/kg ^[1] TOXICITY Dermal (rabbit) LD50: 1.854 mg/kg ^[1] Oral(Rat) LD50; 450 mg/kg ^[1] Oral(Rat) LD50; 325 mg/kg ^[1] Oral(Rabbit) LD50; 325 mg/kg ^[1] Image: State of the symplection of	Dermal (rabbit) LD50: 1.923 mg/kg ^[2] Oral(Rat) LD50; 1310 mg/kg ^[2] TOXICITY Dermal (rabbit) LD50: 1.854 mg/kg ^[1] Oral(Rat) LD50; 450 mg/kg ^[1] Oral(Rat) LD50; 450 mg/kg ^[1] Ever (rabbit) Dermal (rabbit) LD50: 1.350 mg/kg ^[2] Eye (rabbit) Oral(Rabbit) LD50; 325 mg/kg ^[1] Eye (rabbit) Oral(Rabbit) LD50; 325 mg/kg ^[1] Eye (rabbit) Skin (rabbit) Skin (rabbit) Skin (rabbit) Skin (rabbit) Skin: adverse 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. specified data extracted from PIECS - Provise of Toxic Effect of chemical Substances - Acute toxicity 2.

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: 🗙 – Dat

X − Data either not available or does not fill the criteria for classification
→ Data available to make classification

SECTION 12 Ecological information

Alden & Fungue Cleaner	Endpoint	Test Duration (hr)	tion (hr) Species Value			rce	
windew & Fungus Cleaner	Not Available	Not Available	Not Available	Not Available Not Available		Not Available	
	Endpoint	Test Duration (hr)	Species		Value	Source	
	NOEC(ECx)	36.33	Fish		0.068mg/L	4	
nonylphenol ethoxylates	BCF	1008	Fish		<0.2	7	
	EC50	48	Crustacea		1316mg/l	4	
	EC50	96	Algae or other aquatic plan	nts	12mg/l	4	
	Endpoint	Test Duration (hr)	Species	Value		Source	
benzyl C12-16-	LC50	96	Fish	<0.001mg/	L	4	
alkyldimethylammonium chloride	EC50	48	Crustacea	<=0.001mg	g/L	4	
	EC50(ECx)	48	Crustacea	<-0.001mg	ı/L	4	
				<=0.00 mig	, ,		
	Endpoint	Test Duration (hr)	Species	Value	, 	Source	
	Endpoint EC50	Test Duration (hr) 48	Species Crustacea	Value 34.5947.13m	g/l	Source 4	
sodium hydroxide	Endpoint EC50 LC50	Test Duration (hr) 48 96	Species Crustacea Fish	Value 34.5947.13m 0.204mg/L	g/l	Source 4 4	

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

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Ecotoxicity:

The tolerance of water organisms towards pH margin and variation is diverse. Recommended pH values for test species listed in OECD guidelines are between 6.0 and almost 9. Acute testing with fish showed 96h-LC50 at about pH 3.5

For quaternary ammonium compounds (QACs):

QACs are generally white crystalline powders. Low molecular weight QACs are very soluble in water, but slightly or not at all soluble in solvents such as ether, petrol and benzene. As the molecular weight and chain lengths increases, the solubility in polar solvents (e.g. water) decreases and the solubility in non-polar solvents increases. Environmental fate

A major part of the QACs is discharged into wastewater and removed in the biological processes of sewage treatment plant. A 90% reduction of the QACs in the water phase of sludge has been reported and alkyl di-/ trimethyl ammonium and alkyl dimethyl benzyl ammonium compounds seem almost completely degraded in sewage sludge. However, the aerobic and anaerobic biodegradability of QACs is not well investigated. Only sparse data are available concerning stability, solubility and biodegradability. In general, it seems that the biodegradability decreases with increasing numbers of alkyl chains: R(CH3)3N+ > R2(CH3)2N+ > R3(CH3)N+ . Within each category the biodegradability seems inversely proportional to the alkyl chain length. Heterocyclic QACs are less degradable than the non-cyclic. Investigations have shown that bioaccumulation of considerable dimensions will probably not take place.

nvestigations have shown that bloaccumulation of considerable dimensions will probably i

Ecotoxicity:

Quaternary ammonium compounds and their polymers may be highly toxic to fish and other aquatic organisms. The toxicity of the quaternary ammoniums is known to be greatly reduced in the environment because of preferential binding to dissolved organics in surface water.

Environmental toxicity is a function of the n-octanol/ water partition coefficient (log Pow, log Kow). Phenols with log Pow >7.4 are expected to exhibit low toxicity to aquatic organisms. However the toxicity of phenols with a lower log Pow is variable, ranging from low toxicity (LC50 values >100 mg/l) to highly toxic (LC50 values <1 mg/l) dependent on log Pow, molecular weight and substitutions on the aromatic ring. Dinitrophenols are more toxic than predicted from QSAR estimates. Hazard information for these groups is not generally available.

for alkylphenols and their ethoxylates, or propoxylates:

Environmental fate: Alkylphenols are ubiquitous in the environmental after the introduction, generally as wastes, of their alkoxylated forms (ethoxylates and propoxylates, for example); these are extensively used throughout industry and in the home.

Alkylphenol ethoxylates are widely used surfactants in domestic and industrial products, which are commonly found in wastewater discharges and in sewage treatment plant (STP) effluent's. Degradation of APEs in wastewater treatment plants or in the environment generates more persistent shorter-chain APEs and alkylphenols (APs) such as nonylphenol (NP), octylphenol (OP) and AP mono- to triethoxylates (NPE1, NPE2 and NPE3). There is concern that APE metabolites (NP, OP, NPE1-3) can mimic natural hormones and that the levels present in the environment may be sufficient to disrupt endocrine function in wildlife and humans. The physicochemical properties of the APE metabolites (NP, NPE1-4, OP, OPE1-4), in particular the high Kow values, indicate that they will partition effectively into sediments following discharge from STPs. The aqueous solubility data for the APE metabolites indicate that the concentration in water combined with the high partition coefficients will provide a significant reservoir (load) in various environmental compartments. Data from studies conducted in many regions across the world have shown significant levels in samples of every environmental compartment examined. In the US, levels of NP in air ranged from 0.01 to 81 ng/m3, with seasonal trends observed. Concentrations of APE metabolites in treated wastewater effluents in the US ranged from < 0.1 to 369 ug/l, in Spain they were found in the UK. Levels in sediments reflected the high partition coefficients with concentrations reported ranging from < 0.1 to 13,700 ug/kg for sediments in the US. Fish in the UK were found to contain up to 0.8 ug/kg NP in muscle tissue. APEs degraded faster in the water column than in sediment. Aerobic conditions.

Nonylphenols are susceptible to photochemical degradation. Using natural, filtered, lake water it was found that nonylphenol had a half-life of approximately 10-15 h under continuous, noon, summer sun in the surface water layer, with a rate approximately 1.5 times slower at depths 20-25 cm. Photolysis was much slower with ethoxylated nonylphenol, and so it is unlikely to be a significant event in removal of the ethoxylates.

Air: Alkylphenols released to the atmosphere will exist in the vapour phase and is thought to be degraded by reaction with photochemically produced hydroxyl radicals, with a calculated half-life, for nonylphenol, of 0.3 days.

Water: Abiotic degradation of alkylphenol is negligible. Biodegradation does not readily take place. The half-life in surface water may be around 30 days.

Degradation: Alkylphenol ethoxylates (APES) may abiotically degrade into the equivalent alkylphenol. During degradation ethylene oxide units are cleaved off the ethylene oxide chain until only short-chain alkylphenol ethoxylates remain, typically mono- and diethylene oxides. Oxidation of these oligomers creates the corresponding carboxylic acids. This leaves several degradation products: short-chain ethoxylates, their carboxylic acids, and alkylphenols.

Biodegradation: Alkylphenols are not readily biodegradable. Several mechanisms of microbial aromatic ring degradation have been reported, the most common being formation of catechol from phenol, followed by ring scission between or adjacent to the two hydroxyl groups.

The full breakdown pathway for APES has not yet been determined, and all studies have so far focused on identification of intermediates in bacterial culture media, rather than studying cell-free systems or purified enzymes. It is, however, likely that microbial metabolism usually starts by an attack on the ethoxylate chain, rather than on the ring or the hydrophobic chain. The ethoxylate groups are progressively removed, either by ether cleavage, or by terminal alcohol oxidation followed by cleavage of the resulting carboxylic acid. Biodegradation of APEs produces less biodegradable products: alkylphenol mono- and di-ethoxylates, alkylphenoxy acetic and alkylphenoxypolyethoxy acetic acids, and alkylphenols.

These metabolites frequently persist through sewage treatment and in rivers. Anaerobic conditions generally lead to the accumulation of alkylphenols. The rate of biodegradation seems to decrease with increasing length of the ethylene oxide chain.

Bioaccumulation: Metabolites of APES accumulate in organisms, with bioconcentration factors varying from ten to several thousand, depending on species, metabolite and organ. The metabolites of APES are generally more toxic than the original compounds. APES have LC50s above about 1.5 mg/l, whereas alkylphenols, such as nonylphenol, have LC50s are generally around 0.1 mg/l.

Oestrogenic activity: The role of alkyl chain length and branching, substituent position, number of alkylated groups, and the requirement of a phenolic ring structure was assessed in fish. The results showed that most alkylphenols were oestrogenic, although with 3-300 thousand times lower potency than the endogenous estrogen 17beta-estradiol.

Mono-substituted tertiary alkylphenols with moderate (C4-C5) and long alkyl chain length (C8-C9) in the para position exhibited the highest oestrogenic potency. Substitution with multiple alkyl groups, presence of substituents in the ortho- and meta-position and lack of a hydroxyl group on the benzene ring reduced the oestrogenic activity, although several oestrogenic alkylated non-phenolics were identified.

Human exposure: Alkylphenols were first found to be oestrogenic (oestrogen-mimicking) in the 1930s, but more recent research has highlighted the implications of these effects. The growth of cultured human breast cancer cells is affected by nonylphenol at concentrations as low as 1 uM (220 ug/ I) or concentrations of octylphenol as low as 0.1 uM (20 ug/1). Oestrogenic effects have also been shown on rainbow trout hepatocytes, chicken embryo fibroblasts and a mouse oestrogen receptor.

The insecticide chlordecone (Kepone) shows similar behaviour to alkylphenols, accumulating in liver and adipose tissue, and eliciting oestrogenic activity. Workers exposed to this insecticide can suffer reproductive effects such as low sperm counts and sterility. In addition, the oestrogenic effects of chlordecone on MCF7 cells occur at similar concentrations to those of alkylphenols, suggesting that alkylphenols will be a similar health hazard if target cells are exposed to uM levels of these compounds.

By comparing environmental concentrations, bioconcentration factors and *in vitro* oestrogenic effect levels, current environmental levels of alkylphenolic compounds are probably high enough to affect the hormonal control systems of some organisms. It is also possible that human health could be being affected.

Prevent, by any means available, spillage from entering drains or water courses. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium hydroxide	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
nonylphenol ethoxylates	LOW (BCF = 1.4)
sodium hydroxide	LOW (LogKOW = -3.8796)

Mobility in soil

Ingredient	Mobility
sodium hydroxide	LOW (KOC = 14.3)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	 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. Where in doubt contact the responsible authority. Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Neutralisation with suitable dilute acid followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 Transport information

Labels Required

No. Contraction of the second se
NO
2R

Land transport (ADG)

UN number	1719		
UN proper shipping name	AUSTIC ALKALI LIQUID, N.O.S.		
Transport hazard class(es)	Class 8 Subrisk Not Applicable		
Packing group	Ш		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions 274 Limited quantity 1 L		

Air transport (ICAO-IATA / DGR)

UN number	1719			
UN proper shipping name	Caustic alkali liquid, n.o.s. *			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	8 Not Applicable 8L		
Packing group	I			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions Cargo Only Packing Ir Cargo Only Maximum Passenger and Cargo Passenger and Cargo Passenger and Cargo	Instructions Qty / Pack Packing Instructions Maximum Qty / Pack Limited Quantity Packing Instructions	A3 A803 855 30 L 851 1 L Y840	
	Passenger and Cargo Limited Maximum Qty / Pack		0.5 L	

Sea transport (IMDG-Code / GGVSee)

UN number	1719		
UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S.		
Transport hazard class(es)	IMDG Class IMDG Subrisk	8 Not Applicable	
Packing group	I		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number Special provisions Limited Quantities	F-A, S-B s 274 s 1 L	

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
nonylphenol ethoxylates	Not Available
benzyl C12-16- alkyldimethylammonium chloride	Not Available
sodium hydroxide	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
nonylphenol ethoxylates	Not Available
benzyl C12-16- alkyldimethylammonium chloride	Not Available
sodium hydroxide	Not Available
soaium nyaroxiae	NOT AVAIIADIE

SECTION 15 Regulatory information

nonylphenol ethoxylates is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC) Chemical Footprint Project - Chemicals of High Concern List

benzyl C12-16-alkyldimethylammonium chloride 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 5

sodium hydroxide 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 10 / Appendix C

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

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 $\,$

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (nonylphenol ethoxylates; benzyl C12-16-alkyldimethylammonium chloride; sodium hydroxide)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (benzyl C12-16-alkyldimethylammonium chloride)
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 16 Other information

Revision Date	18/03/2021
Initial Date	11/05/2016

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.

Definitions and abbreviations

- PC-TWA: Permissible Concentration-Time Weighted Average
- PC-STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit_\circ
- IDLH: Immediately Dangerous to Life or Health Concentrations
- OSF: Odour Safety Factor
- NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index

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