

SAFETY DATA SHEET

Acid Free Wheel Cleaner

According to the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practise, 2021.

SECTION 1: Identification: Pro	oduct identifier and chemical identity
Product identifier	
Product name	Acid Free Wheel Cleaner
Relevant identified uses of the	substance or mixture and uses advised against
Application	Car maintenance product Wheel Cleaner
Uses advised against	For professional use only. This product is not recommended for any industrial, professional or consumer use other than the Identified uses above.
Details of the supplier of the s	afety data sheet
Supplier	Autosmart Australia 11 Darrambal Close Rathmines NSW 2283 Australia www.autosmartaustralia.com.au Tel: 02 49 75 14 88 (Mon to Fri, 08:00 - 16:00 AEST) (General Information. Transport Information. Mild Medical Information) autosmart@autosmartaustralia.com.au
Contact Person	Mr. Russell Butler
Emergency telephone number	·
Emergency telephone	NCEC - For Chemical Emergency Support ONLY (spill, leak, fire, exposure or accident), Call NCEC at 18000 74234 (toll free 24Hrs) - when calling please quote "AUTOSMART 29003- NCEC" Local number +61 2 8 014 4558 General Information. Transport Information. Mild medical Information:- Tel: 02 49 75 14 88 (Mon to Fri, 08:00 - 16:00 AEST)
National emergency telephone number	Poison Information Hotline: 13 11 26

SECTION 2: Hazard(s) identification

Classification of the substance or mixture		
Physical hazards	Met. Corr. 1 - H290	
Health hazards	Skin Corr. 1C - H314 Eye Dam. 1 - H318	
Environmental hazards	Not Classified	
Label elements		

Hazard pictograms



Signal word	DANGER
Hazard statements	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.
Precautionary statements	 P260 Do not breathe vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ 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. P362+P364 Take off contaminated clothing and wash before reuse.
Supplemental label information	For professional users only.
Contains	Sodium hydroxide, 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-,N-C8- 18(even numbered) acyl derivs., hydroxides, inner salts, 2-BUTOXYETHANOL

Other hazards

This product does not contain any substances classified as PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative).

SECTION 3: Composition and information on ingredients

Mixtures	
Sodium hydroxide	5<10%
CAS number: 1310-73-2	
Substance with a Community workplace exposure limit.	
Classification	
Met. Corr. 1 - H290	
Skin Corr. 1A - H314	
Eye Dam. 1 - H318	
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl- ,N-C8-18(even numbered) acyl derivs., hydroxides, inner salts	2<3%
CAS number: 97862-59-4	

Classification Eye Dam. 1 - H318 Aquatic Chronic 3 - H412

1<1.25%

Acid Free Wheel Cleaner

2-BUTOXYETHANOL

CAS number: 111-76-2

Substance with a Community workplace exposure limit.

Classification

Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

Description of first aid measures

General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician.	
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.	
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.	
Skin Contact	It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Chemical burns must be treated by a physician.	
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.	
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.	
Most important symptoms and effects, both acute and delayed		
General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	A single exposure may cause the following adverse effects: Severe irritation of nose and throat. Symptoms following overexposure may include the following: Corrosive to the	

respiratory tract.

Ingestion	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
Skin contact	Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.
Eye contact	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.
Indication of any immediate m	edical attention and special treatment needed
Notes for the doctor	Treat symptomatically.
SECTION 5: Firefighting meas	sures
Extinguishing media	
Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Special hazards arising from t	he substance or mixture
Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Severe corrosive hazard. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.
Advice for firefighters	
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to Australia/New Zealand Standards AS/NZS 4967 (for clothing) AS/NZS 1801 (for helmets), AS/NZS 4821 (for protective boots), AS/NZS 1801 (for protective gloves) will provide a basic level of protection for chemical incidents.
Hazchem Code	2R
SECTION 6: Accidental release	e measures
Personal precautions, protecti	ve equipment and emergency procedures
Personal precautions	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes. Avoid contact with contact with skin and eyes.

Environmental precautions

contact with contaminated tools and objects.

Environmental precautions The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. This product is corrosive. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spillage. Neutralise with acid. Caution. May generate heat. Following dilution and neutralisation, discharge to the sewer with plenty of water may be permitted. The requirements of the local water authority must be complied with if contaminated water is flushed directly to the sewer. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Reference to other sections	

For personal protection, see Section 8. See Section 11 for additional information on health Reference to other sections hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling			
Usage precautions	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. This product is corrosive. Immediate first aid is imperative. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.		
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.		
Conditions for safe storage, inc	Conditions for safe storage, including any incompatibilities		
Storage precautions	Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Store away from the following materials: Acids. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.		
Storage class	Corrosive storage.		
Specific end use(s)			
Specific end use(s)	The identified uses for this product are detailed in Section 1.		
SECTION 8: Exposure controls	s and personal protection		

Control parameters

Occupational exposure limits

Sodium hydroxide

Ceiling value: 2 mg/m³

2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): 20 ppm 96.9 mg/m³ Short-term exposure limit (15-minute): 50 ppm 242 mg/m³ Sk

Sk = Absorption through the skin may be a significant source of exposure.

Exposure controls

Protective equipment



Appropriate engineering Provide adequate ventilation. Personal, workplace environment or biological monitoring may controls be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure. Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with Australia/New Zealand Standard AS/NZS 1337. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The breakthrough time for any glove material may be different for different glove manufacturers. To protect hands from chemicals, gloves should comply with Australia/New Zealand Standard AS/NZS 2161. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended. The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. When used with mixtures, the protection time of gloves cannot be accurately estimated. Gloves made from the following material may provide suitable chemical protection: Nitrile rubber. Thickness: >0.2mm The selected gloves should have a breakthrough time of at least 0.5 hours. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application. Use thin cotton gloves inside natural rubber gloves if there is an allergy risk to natural rubber. Other skin and body Appropriate footwear and additional protective clothing complying with an approved standard

protection

should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and complies with Australia/New Zealand Standard AS/NZS 1716. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Full face mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Full face mask respirators with replaceable filter cartridges should comply with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Half mask and quarter mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Half mask and quarter mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Half mask and quarter mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716.
Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties	
Appearance	Liquid.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	Not available.
рН	pH (concentrated solution): ~ 11.5
Melting point	~ 0°C
Initial boiling point and range	~ 100 @°C @ 760 mm Hg
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability Limit - Lower(%)	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	~ 1.050 @ (20°C)°C
Solubility(ies)	Soluble in water. Miscible with water.
Partition coefficient	: < 0
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not available.
Viscosity	~ 75 mPa s @ 20°C
Oxidising properties	Not applicable.

Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
Volatile organic compound	This product contains a maximum VOC content of 5 g/litre.
SECTION 10: Stability and rea	activity
Reactivity	May be corrosive to metals.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	Acid anhydrides. Acids. Phenols, cresols. Mild steel. Stainless steel. Aluminium. May be corrosive to metals.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.
SECTION 11: Toxicological int	ormation
Information on toxicological eff	fects
<u>Acute toxicity - oral</u> Notes (oral LD∞)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	116,022.74
Acute toxicity - dermal	
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	106,354.18
Acute toxicity - inhalation	
Notes (inhalation LC ₅₀)	Based on available data the classification criteria are not met.
ATE inhalation (vapours mg/l)	1,063.54
Skin corrosion/irritation	
Animal data	Skin Corr. 1C - H314 Causes severe burns.
Human skin model test	Scientifically unjustified.
Extreme pH	≥ 11.5 Corrosive.
Serious eye damage/irritation Serious eye damage/irritation	Eye Dam. 1 - H318 Corrosive to skin. Corrosivity to eyes is assumed.
Respiratory sensitisation Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation Skin sensitisation	Based on available data the classification criteria are not met.
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity		
Carcinogenicity	Based on available data the classification criteria are not met.	
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.	
Reproductive toxicity		
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	
Reproductive toxicity - development	Based on available data the classification criteria are not met.	
Specific target organ toxicity -	single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxicity -	repeated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard		
Aspiration hazard	Based on available data the classification criteria are not met.	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.	
Ingestion	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.	
Skin Contact	Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.	
Eye contact	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.	
Route of exposure	Ingestion Inhalation Skin and/or eye contact	
Target Organs		
Medical Symptoms	No specific target organs known.	
	No specific symptoms noted, but this chemical may still have adverse health impact, either in general or on certain individuals.	
Toxicological information on ingredients.		
	Sodium hydroxide	
Other health effects There is no evidence that the product can cause cancer.		
Specific target organ toxicity - single exposure		
STOT - single ex	posure Not classified as a specific target organ toxicant after a single exposure.	

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Route of exposure Skin absorption Ingestion Skin and/or eye contact

Target Organs	No specific target organs known.
1-Propanaminium, 3-amino	-N-(carboxymethyl)-N,N-dimethyl-,N-C8-18(even numbered) acyl derivs., hydroxides,
	inner salts
Other health effects	There is no evidence that the product can cause cancer.
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	7,783.0
Species	Rat
Acute toxicity - dermal	
Acute toxicity dermal (LD₅ mg/kg)	2,066.0
Species	Rat
Skin sensitisation	
Skin sensitisation	Not sensitising.
Reproductive toxicity	
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 1,000 mg/kg, Oral, Rat
Specific target organ toxicit	y - single exposure
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicit	y - repeated exposure
STOT - repeated exposure	NOAEL 300 mg/kg, Oral, Rat Not classified as a specific target organ toxicant after repeated exposure.
	2-BUTOXYETHANOL
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	1,200.0
Species	Rat
ATE oral (mg/kg)	1,200.0
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	2,270.0
Species	Rat
ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
ATE inhalation (vapours mg/l)	11.0
	11.0

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	Germ cell mutage		
G	Senotoxicity - in v	vitro	Gene mutation:: Negative. This substance has no evidence of mutagenic properties.
Q	Carcinogenicity		
IA	ARC carcinogen	icity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
R	Reproductive toxi	icity	
	Reproductive toxi ertility	icity -	Fertility: - NOAEL 720 mg/kg, , Mouse
	Reproductive toxi evelopment	icity -	Developmental toxicity: - NOAEL: 100 mg/kg, , Rat
SECTION 12:	Ecological inforr	nation	
Ecotoxicity	motion on insur	organisr	duct may affect the acidity (pH) of water which may have hazardous effects on aquatic ms.
	rmation on ingre	ealents.	
			Sodium hydroxide
E	cotoxicity		The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.
1	-Propanaminium	n, 3-amino	o-N-(carboxymethyl)-N,N-dimethyl-,N-C8-18(even numbered) acyl derivs., hydroxides,
-	•		inner salts
E	cotoxicity		Harmful to aquatic life.
Toxicity		Based c	on available data the classification criteria are not met.
Acute aquatic	toxicity		
Acute toxicity -	fish	Not dete	ermined.
Acute toxicity - invertebrates	- aquatic	Not dete	ermined.
Acute toxicity -	aquatic plants	Not dete	ermined.
Acute toxicity - microorganism		Not dete	ermined.
Acute toxicity -	- terrestrial	Not dete	ermined.
Ecological info	rmation on ingre	edients.	
			Sodium hydroxide
A	cute aquatic tox	icity	
_	Acute toxicity - fis		LC50, 48 hours: ~ 189 mg/l, Leuciscus idus (Golden orfe) LC₅₀, 96 hours: 125 mg/l, Fish
	cute toxicity - ac	quatic	EC₅₀, 48 hours: > 100 mg/l, Daphnia magna EC₅₀, 48 hours: 40-240 mg/l, Daphnia magna
-			

Acute toxicity - aquatic Not known. plants

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-,N-C8-18(even numbered) acyl derivs., hydroxides, inner salts Acute aquatic toxicity Acute toxicity - fish LC50, 96 hours: ~ 1.11 mg/l, Pimephales promelas (Fat-head Minnow) Acute toxicity - aquatic EC₅₀, 48 hours: 1.9 mg/l, Daphnia magna invertebrates Acute toxicity - aquatic EC₅₀, 72 hours: 2.4 mg/l, Freshwater algae plants Acute toxicity -EC_o, : 3,000 mg/l, Activated sludge microorganisms Chronic aquatic toxicity Chronic toxicity - fish early NOEC, : 0.135 mg/l, Oncorhynchus mykiss (Rainbow trout) life stage Chronic toxicity - aquatic NOEC, : 0.3 mg/l, Daphnia magna invertebrates 2-BUTOXYETHANOL Acute aquatic toxicity Acute toxicity - fish LC50, 96 hours: > 100 mg/l, Lepomis macrochirus (Bluegill) Acute toxicity - aquatic EC50, 48 hours: 1550 mg/l, Daphnia magna invertebrates Acute toxicity - aquatic EC₅₀, >: > 100 mg/l, plants Acute toxicity -EC₅₀, >: > 1000 mg/l, microorganisms Chronic aquatic toxicity Chronic toxicity - fish early NOEC, 21 days: > 100 mg/l, life stage Chronic toxicity - aquatic NOEC, 21 days: 100 mg/l, Daphnia magna invertebrates Persistence and degradability Persistence and degradability The degradability of the product is not known. Ecological information on ingredients. Sodium hydroxide Persistence and The product contains only inorganic substances which are not biodegradable. The degradability product is potentially degradable. Stability (hydrolysis) Not applicable.

Biological oxygen demand ~ 0 g O₂/g substance

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-,N-C8-18(even numbered) acyl derivs., hydroxides, inner salts

	Persistence and		The product is biodegradable.
	degradability		
			2-BUTOXYETHANOL
	Persistence and degradability		The product is biodegradable.
	Biodegradation		Water - Degradation (%) 90.4: 28 days
Bioaccumu	ative potential		
Bioaccumu	ative Potential	No data	available on bioaccumulation.
Partition co	efficient	: < 0	
Ecological i	nformation on ingred	dients.	
			Sodium hydroxide
	Bioaccumulative P	otential	The product is not bioaccumulating.
	1-Propanaminium,	, 3-amino	-N-(carboxymethyl)-N,N-dimethyl-,N-C8-18(even numbered) acyl derivs., hydroxides,
			inner salts
	Bioaccumulative P	otential	The product does not contain any substances expected to be bioaccumulating. BCF: 71,
			2-BUTOXYETHANOL
	Bioaccumulative P	otential	The product is not bioaccumulating.
	Partition coefficien	t	: 0.81
Mobility in s		-	
Mobility		The proc	luct is water-soluble and may spread in water systems. The product is non-volatile.
Ecological i	nformation on ingred	dients.	
			Sodium hydroxide
	Mobility		The product is soluble in water.
	- Henry's law consta	ant	The product contains mainly inorganic substances which are not biodegradable.
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-,N-C8-18(even numbered) acyl derivs., hydroxides,			
	<u> </u>		inner salts
	Mobility		The product is soluble in water.
			2-BUTOXYETHANOL
	Mobility		The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.
	Adsorption/desorp coefficient	tion	Water - Koc: ~ 67 @ °C
	Henry's law consta	ant	0.000016 atm m3/mol @ °C

Surface tension	65 mN/m @ °C
Other adverse effects	
Other adverse effects	None known.
SECTION 13: Disposal conside	erations
Waste treatment methods	
General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.
SECTION 14: Transport inform	nation
General	For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.
UN number	
UN No. (ADG)	1824
UN No. (IMDG)	1824
UN No. (ICAO)	1824
UN proper shipping name	
Proper shipping name (ADG)	SODIUM HYDROXIDE SOLUTION
Proper shipping name (IMDG)	SODIUM HYDROXIDE SOLUTION
Proper shipping name (ICAO)	SODIUM HYDROXIDE SOLUTION
Transport hazard class(es)	
ADG class	8
ADG classification code	C5
ADG label	8
IMDG class	8
ICAO class/division	8
Transport labels	



Packing group

ADG packing group	III
IMDG packing group	III
ICAO packing group	

Environmental hazards

Environmentally hazardous substance/marine pollutant No.

Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

IMDG Code segregation	18. Alkalis
group	
EmS	F-A, S-B
Hazchem Code	2R

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

National regulations	The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
	National Code of Practice for the Preparation of Material Safety Data Sheets.
	Approved Criteria for Classifying Hazardous Substances.
	Exposure Standards for Atmospheric Contaminants in the Occupational Environment.
	Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in
	the Occupational Environment.
	National Code of Practice for the Labelling of Workplace Substances.
	National Model Regulations for the Control of Workplace Hazardous Substances.
	National Code of Practice for the Control of Workplace Hazardous Substances.
	National Standard for the Storage and Handling of Workplace Dangerous Goods.
	National Code of Practice for the Storage and Handling of Workplace Dangerous Goods.
	Guidance Note for Placarding Stores for Dangerous Goods and Specified Hazardous
	Substances. Guidance Note for the Assessment of Health Risks Arising from Hazardous
	Substances in the Workplace.
	National Standard for the Control of Major Hazard Facilities. National Code of Practice for the
	Control of Major Hazard Facilities.
Schedule (SUSMP)	Schedule 5. Caution.

Inventories

Australia - AIIC

The following ingredients are listed or exempt:

Water

Sodium hydroxide

2-BUTOXYETHANOL

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether

SECTION 16: Any other relevant information

Abbreviations and acronyms used in the safety data sheet	ADG: Australian dangerous goods code
	 IATA: International air transport association. ICAO: Technical instructions for the safe transport of dangerous goods by air. IMDG: International maritime dangerous goods. CAS: Chemical abstracts service. ATE: Acute toxicity estimate. LC₅₀: Lethal concentration to 50 % of a test population. LD₅₀: Lethal dose to 50% of a test population (median lethal dose). EC₅₀: 50% of maximal effective concentration. PBT: Persistent, bioaccumulative and toxic substance. vPvB: Very persistent and very bioaccumulative.
Classification abbreviations and acronyms	Met. Corr. = Corrosive to metals Eye Dam. = Serious eye damage Skin Corr. = Skin corrosion
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	Prepared by Autosmart International Ltd, Lynn Lane, Shenstone, Lichfield, Staffordshire, WS14 0DH, Great Britain. www.autosmartinternational.com rbutler@autosmart.co.uk Tel +44 (0)1543 481616
Revision date	24/08/2023
Revision	12
Supersedes date	8/03/2023
SDS No.	11171
SDS status	Approved.
Hazard statements in full	 H290 May be corrosive to metals. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.