

Chemtools Pty Ltd

Chemwatch: 2742-112	Issue Date: 28/09/2023
Version No: 2.1	Print Date: 05/10/2023
Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements	S.GHS.AUS/NZ.EN.E
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017	

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

Product Identifier

Product name	Tap-N-Cool Semi-Synthetic Soluble Cutting Fluid
Chemical Name	Not Applicable
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses

Details of the manufacturer or supplier of the safety data sheet

Registered company name	Chemtools Pty Ltd	Chemtools Pty Ltd
Address	Unit 2, 14 - 16 Lee Holm Road St Marys NSW 2760 Australia	15/62 Factory Road Belfast Christchurch 8051 New Zealand
Telephone	1300 738 250, +61 2 9833 9766	+64 9 940 2745
Fax	+61 2 9623 3670	+61 2 9623 3670
Website	www.chemtools.com.au	www.chemtools.co.nz
Email	sales@chemtools.com.au	sales@chemtools.com.au

Emergency telephone number

Association / Organisation	Poisons Information Centre	National Poisons Centre
Emergency telephone numbers	13 11 26	0800 764 766
Other emergency telephone numbers	Not Available	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Poisons Schedule	Not Applicable
Classification ^[1]	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Germ Cell Mutagenicity Category 2, Carcinogenicity Category 1A
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Chemwatch Hazard Alert Code: 4



Danger

Signal word

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification ^[1]	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Germ Cell Mutagenicity Category 2, Carcinogenicity Category 1, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	6.3A, 6.4A, 6.6B, 6.7A, 6.9B, 9.1C

Label elements

Hazard pictogram(s)



Signal word Danger

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P273	Avoid release to the environment.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Store locked up.

Precautionary statement(s) Disposal

P405

P501

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

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name	
68155-20-4	<3	tall oil fatty acids diethanolamide	
5625-90-1	<1.5	4,4'-methylenedimorpholine	
111-42-2	<1.5	diethanolamine	
7732-18-5	>50	water	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available		

SECTION 4 First aid measures

Description of first aid measures

Eye Contact

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	 Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- foam.
- dry chemical powder.
- carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	 The material is not readily combustible under normal conditions. However, it will break down under fire conditions and the organic component may burn. Not considered to be a significant fire risk. Heat may cause expansion or decomposition with violent rupture of containers. Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). May emit acrid smoke. Decomposes on heating and produces toxic fumes of: carbon dioxide (CO2) nitrogen oxides (NOX) other pyrolysis products typical of burning organic material.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

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See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	 Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal. Wash area and prevent runoff into drains or waterways. If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. When handling DO NOT eat, drink or smoke. Always wash hands with soap and water after handling. Avoid physical damage to containers. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS.
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.

Conditions for safe storage, including any incompatibilities

Suitable container	 Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. 		
Storage incompatibility	 Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid contact with copper, aluminium and their alloys. 		



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

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Tap-N-Cool Semi-Synthetic Soluble Cutting Fluid

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	diethanolamine	Diethanolamine	3 ppm / 13 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	diethanolamine	Diethanolamine	3 ppm / 13 mg/m3	Not Available	Not Available	(skin) - Skin absorption

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
diethanolamine	3 mg/m3	28 mg/m3		130 mg/m3
Ingredient	Original IDLH		Revised IDLH	
tall oil fatty acids diethanolamide	Not Available		Not Available	
4,4'-methylenedimorpholine	Not Available		Not Available	
diethanolamine	Not Available		Not Available	
water	Not Available		Not Available	

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
tall oil fatty acids diethanolamide	E	≤ 0.1 ppm	
4,4'-methylenedimorpholine	E	≤ 0.1 ppm	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.		

Exposure controls

Appropriate engineering controls	General exhaust is adequate under normal operating conditions.
Individual protection measures, such as personal protective equipment	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] 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].
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the: **"Forsberg Clothing Performance Index".** The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection: Tap-N-Cool Semi-Synthetic Soluble Cutting Fluid

Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

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Material	CPI
BUTYL	А
NEOPRENE	А
VITON	А
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NITRILE	С
PVA	С
PVC	С
TEFLON	С

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

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

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AK-AUS P2	-	AK-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AK-AUS / Class 1 P2	-
up to 100 x ES	-	AK-2 P2	AK-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Pale brown liquid; mixes with water.			
Physical state	Liquid	Relative density (Water = 1)	Not Available	
Odour	Not Available	Partition coefficient n- octanol / water	Not Available	
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available	
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available	
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available	
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable	
Flash point (°C)	Not Applicable	Taste	Not Available	
Evaporation rate	Not Available	Explosive properties	Not Available	
Flammability	Not Applicable	Oxidising properties	Not Available	
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available	
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available	
Vapour pressure (kPa)	Not Available	Gas group	Not Available	
Solubility in water	Miscible	pH as a solution (1%)	Not Available	
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available	

SECTION 10 Stability and reactivity

Reactivity

Chemical stability

See section 7

Unstable in the presence of incompatible materials.

Continued...

Image: Product is considered stable.
Hazardous polymerisation will not occur.Possibility of hazardous
reactionsSee section 7Conditions to avoidSee section 7Incompatible materialsSee section 7Hazardous decomposition
productsSee section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	Not normally a hazard due to non-volatile nature of product		
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting		
Skin Contact	The material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Open cuts, abraded or irritated skin should not be exposed to this material		
Eye	This material can cause eye irritation and damage in some persons.		
Chronic	There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.		

Tap-N-Cool Semi-Synthetic Soluble Cutting Fluid	тохісіту	IRRITATION	
	Not Available	Not Available	
tall oil fatty acids	тохісіту	IRRITATION	
diethanolamide	Not Available	Not Available	
	тохісіту	IRRITATION	
4,4'- methylenedimorpholine	Oral (Rat) LD50: 550 mg/kg ^[2]	Eye(-): irritating *	
		Skin(-): irritating *Respiratory: irritating*	
	тохісіту	IRRITATION	
	Dermal (rabbit) LD50: 12200 mg/kg ^[2]	Eye (rabbit): 5500 mg - SEVERE	
	Oral (Rat) LD50: 710 mg/kg ^[2]	Eye (rabbit):0.75 mg/24 hr SEVERE	
diethanolamine		Eye: adverse effect observed (irritating) ^[1]	
		Skin (rabbit): 50 mg (open)-mild	
		Skin (rabbit): 500 mg/24 hr-mild	
		Skin: adverse effect observed (irritating) ^[1]	
water	тохісіту	IRRITATION	
	Oral (Rat) LD50: >90000 mg/kg ^[2]	Not Available	
Legend:	 Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances 		

TALL OIL FATTY ACIDS DIETHANOLAMIDE	Laboratory testing shows that the fatty acid amide, cocoamide DEA, causes occupational allergic contact dermatitis, and that allergy to this substance is becoming more common. Alkanolamides are manufactured by condensation of diethanolamine and the methyl ester of long chain fatty acids. The chemicals in the Fatty Nitrogen Derived (FND) Amides are generally similar in terms of physical and chemical properties, environmental fate and toxicity. Its low acute oral toxicity is well established across all subcategories by the available data and show no apparent organ specific toxicity, mutation, reproductive or developmental defects. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
4,4'- METHYLENEDIMORPHOLINE	7 patients reacted positively to the formaldehyde releaser 4,4'-methylenebismorpholine, and 6 of these patients also reacted to formaldehyde and/or other formaldehyde releasers. 4 patients reacted positively to myristyl alcohol tested at 10% petrolatum (pet.). Additionally, 20 doubtful or irritant reactions occurred. 1 patient each reacted positively to oleyl alcohol, MIPA, and AEPD. None of the other test substances mentioned above elicited any clear-cut positive reaction. Patch testing with well-

known MWF allergens showed proportions of positive reactions, which were comparable to those from other studies, e.g. 11% to monoethanolamine, 8% to colophonium and 3%?5% to various preservatives. Conclusions: 4,4'-methylenebis morpholine may be an important MWF allergen, although clinical relevance could not be stated definitely in every case. Convulsions, tumours at sites of application, peripheral nerve tumours recorded. Equivocal tumourigen by RTECS criteria. * Fuchs Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. In light of potential adverse effects, and to ensure a harmonised risk assessment and management, the EU regulatory framework for biocides has been established with the objective of ensuring a high level of protection of human and animal health and the environment. To this aim, it is required that risk assessment of biocidal products is carried out before they can be placed on the market. A central element in the risk assessment of the biocidal products are the utilization instructions that defines the dosage, application method and amount of applications and thus the exposure of humans and the environment to the biocidal substance. Humans may be exposed to biocidal products in different ways in both occupational and domestic settings. Many biocidal products are intended for industrial sectors or professional uses only, whereas other biocidal products (i.e. the general public) may occur indirectly via the environment, for example through drinking water, the fod chain, as well as through atmospheric and residential exposure. Particular attention should be paid to the exposure of vulnerable sub-populations, such as the elderly, pregnant women, and children. Also pets and other domestic animals can be exposed indirectly following the application of biocidal products. Furthermore, exposure to biocides may vary in terms of route (inhalation, dermal contact, and ingestion) and pathw
The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.
Mary amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage. Repeated and/or prolonged exposure to some amines may result in liver disorders, jaundice and liver enlargement. Some amines have been shown to cause kidney, blood and central nervous system disorders in animal studies. While most polyurethane amine catalysts are not sensitizers, some certain individuals may also become sensitized to amines and my experience distress while breathing, including astma-like attacks, whenever they are subsequently exposed to even very small amounts of vapours. Once sensitized, these individuals must avoid any further exposure to amines. Chronic overexposure may lead to permanent lung injury, including reduction in lung function, breathlessness, chronic inflammation of the bronchi, and immunologic lung disease. Products with higher vapour pressures may reach higher concentrations in the air, and this increases the likelihood of worker exposure.

symptoms are temporary and usually disappear when exposure ends. Some people may experience this effect even when exposed to concentrations that do not cause respiratory irritation.

Ingestion: Amine catalysts have moderate to severe toxicity if swallowed. Some amines can cause severe irritation, ulcers and burns of the mouth, throat, gullet and gastrointestinal tract. Material aspirated due to vomiting can damage the bronchial tubes and the lungs. Affected people may also experience pain in the chest or abdomen, nausea, bleeding of the throat and gastrointestinal tract, diarrhea, dizziness, drowsiness, thirst, collapse of circulation, coma and even death.

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	WARNING: This substance has been classif	ied by the IARC as Group 2B: Pos	sibly Carcinogenic to Humans.	
TALL OIL FATTY ACIDS DIETHANOLAMIDE & 4,4' METHYLENEDIMORPHOLINE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.			
TALL OIL FATTY ACIDS DIETHANOLAMIDE & 4,4' METHYLENEDIMORPHOLINE & DIETHANOLAMINE	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non- allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin			
TALL OIL FATTY ACIDS DIETHANOLAMIDE & 4,4* METHYLENEDIMORPHOLINE & WATEF	No significant acute toxicological data identified in literature search.			
TALL OIL FATTY ACIDS DIETHANOLAMIDE & DIETHANOLAMINE	DEA has low acute toxicity if ingested orally or applied on the skin. It can cause moderate skin irritation and severe eye irritation. It may affect sperm production, cause anaemia and damage the liver and kidney. It has not been shown to cause cancer in humans; though there is evidence that it may cause cancer in mice, and damage to the foetus at levels toxic to the mother.			
Acute Toxicity	×	Carcinogenicity	*	
Skin Irritation/Corrosion	×	Reproductivity X		
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×	
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×	
Mutagenicity	*	Aspiration Hazard	×	

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

Data available to make classification

SECTION 12 Ecological information

oxicity					
	Endpoint	Test Duration (hr)	Species	Value	Source
Tap-N-Cool Semi-Synthetic Soluble Cutting Fluid	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
tall oil fatty acids diethanolamide	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
4,4'- methylenedimorpholine	Not Available	Not Available	Not Available	Not Available	Not Available
diethanolamine	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	0.86- 3.5mg/l	4
	EC50	72h	Algae or other aquatic plants	2.7mg/l	2
	EC50	48h	Crustacea	28.8mg/l	1
	LC50	96h	Fish	>100mg/l	4
	NOEC(ECx)	72h	Algae or other aquatic plants	0.6mg/l	2

	Endpoint	Test Duration (hr)	Species	Value	Source
water	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity				
	4. US EPA, ECOLOX VALADASE - AQUALIC TOXICITY Data 5. ECETOC AQUATIC Hazard Assessment Data 6. NTTE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data			-	

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
diethanolamine	LOW (Half-life = 14 days)	LOW (Half-life = 0.3 days)
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
diethanolamine	LOW (BCF = 1)

Mobility in soil

Ingredient	Mobility
diethanolamine	HIGH (KOC = 1)

SECTION 13 Disposal considerations

Waste treatment methods		
Product / Packaging disposal	 Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill. 	

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

Only dispose to the environment if a tolerable exposure limit has been set for the substance.

Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

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

Product name	Group
tall oil fatty acids diethanolamide	Not Available
4,4'-methylenedimorpholine	Not Available
diethanolamine	Not Available
water	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
tall oil fatty acids diethanolamide	Not Available
4,4'-methylenedimorpholine	Not Available
diethanolamine	Not Available
water	Not Available

SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002531	Cleaning Products Carcinogenic Group Standard 2020
HSR002512	Additives Process Chemicals and Raw Materials Carcinogenic Group Standard 2020
HSR002607	Lubricants Carcinogenic Group Standard 2020
HSR002616	Metal Industry Products Carcinogenic Group Standard 2020
HSR002639	Photographic Chemicals Carcinogenic Group Standard 2020
HSR002646	Polymers Carcinogenic Group Standard 2020
HSR002648	Refining Catalysts Group Standard 2020
HSR002655	Solvents Carcinogenic Group Standard 2020
HSR002679	Surface Coatings and Colourants Carcinogenic Group Standard 2020
HSR002687	Water Treatment Chemicals Carcinogenic Group Standard 2020
HSR100425	Pharmaceutical Active Ingredients Group Standard 2020
HSR002601	Leather and Textile Products Carcinogenic Group Standard 2020
HSR002545	Construction Products Carcinogenic Group Standard 2020
HSR002551	Corrosion Inhibitors Carcinogenic Group Standard 2020
HSR002560	Dental Products Carcinogenic Group Standard 2020
HSR002568	Embalming Products Carcinogenic Group Standard 2020
HSR002586	Fuel Additives Carcinogenic Group Standard 2020
HSR100757	Veterinary Medicines Limited Pack Size Finished Dose Group Standard 2020
HSR100758	Veterinary Medicines Non dispersive Closed System Application Group Standard 2020
HSR100759	Veterinary Medicines Non dispersive Open System Application Group Standard 2020

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

tall oil fatty acids diethanolamide is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

New Zealand Inventory of Chemicals (NZIoC)

4,4'-methylenedimorpholine is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

Chemical Footprint Project - Chemicals of High Concern List New Zealand Inventory of Chemicals (NZIoC)

diethanolamine is found on the following regulatory lists	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals	International Agency for Research on Cancer the IARC Monographs - Group 2B: Possibly ca
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5	New Zealand Hazardous Substances and New Classification of Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6	New Zealand Hazardous Substances and New Classification of Chemicals - Classification Da
Australian Inventory of Industrial Chemicals (AIIC)	New Zealand Inventory of Chemicals (NZIoC)
Chemical Footprint Project - Chemicals of High Concern List	New Zealand Workplace Exposure Standards
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	
water is found on the following regulatory lists	
Australian Inventory of Industrial Chemicals (AIIC)	New Zealand Inventory of Chemicals (NZIoC)

onal Agency for Research on Cancer (IARC) - Agents Classified by C Monographs - Group 2B: Possibly carcinogenic to humans aland Hazardous Substances and New Organisms (HSNO) Act cation of Chemicals aland Hazardous Substances and New Organisms (HSNO) Act ation of Chemicals - Classification Data

aland Workplace Exposure Standards (WES)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantities
Not Applicable	Not Applicable

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	No (4,4'-methylenedimorpholine)
Canada - NDSL	No (tall oil fatty acids diethanolamide; 4,4'-methylenedimorpholine; diethanolamine; water)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	No (4,4'-methylenedimorpholine)
USA - TSCA	No (4,4'-methylenedimorpholine)
Taiwan - TCSI	Yes
Mexico - INSQ	No (tall oil fatty acids diethanolamide; 4,4'-methylenedimorpholine)
Vietnam - NCI	Yes
Russia - FBEPH	Yes

National Inventory	Status
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	28/09/2023
Initial Date	28/09/2023

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

