CRC Ambersil Blue Mould Protective FG

CRC Industries (CRC Industries New Zealand)

Chemwatch Hazard Alert Code: **3**

Chemwatch: **5308-76**
Version No: **4.1**
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Initial Date: **08/06/2018**
Revision Date: **10/12/2021**
Print Date: **07/10/2026**
S.GHS.NZL.EN

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

Product Identifier

Product name	CRC Ambersil Blue Mould Protective FG
Chemical Name	Not Applicable
Synonyms	32449
Proper shipping name	AEROSOLS
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	Anti-corrosion products. Application is by spray atomisation from a hand held aerosol pack

Details of the manufacturer or importer of the safety data sheet

Registered company name	**CRC Industries (CRC Industries New Zealand)**
Address	10 Highbrook Drive East Tamaki Auckland New Zealand
Telephone	+64 9 272 2700
Fax	+64 9 274 9696
Website	www.crc.co.nz
Email	- No EMAL ID NEEDED for NZ - JACK

Emergency telephone number

Association / Organisation	**CRC Industries (CRC Industries New Zealand)**	**CHEMWATCH EMERGENCY RESPONSE (24/7)**
Emergency telephone number(s)	NZ Poisons Centre 0800 POISON (0800 764 766)	+64 800 700 112 (ID#: 5308-76)
Other emergency telephone number(s)	111 (NZ Emergency Services)	+61 3 9573 3188

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification [1]	Aerosols, Hazard Category 1, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2
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	2.1.2A, 6.1E (aspiration), 6.3A, 6.4A, 6.9B (narcotic effects), 9.1B

Label elements

Hazard pictogram(s)	

Signal word	**Danger**

Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P331	Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.

Precautionary statement(s) Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

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

No further product hazard information.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64742-49-0.	30-60	Hydrocarbons, C6, isoalkanes, <5% n-hexane
67-63-0	1-5	isopropanol
110-25-8	0-1	oleoylsarcosine
123-42-2	0-1	diacetone alcohol
95-38-5	0-1	2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol
68512-91-4	30-60	hydrocarbons, C3-4 rich, petroleum distillate

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	If aerosols come in contact with the eyes: ‣ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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. ‣ 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 solids or aerosol mists are deposited upon the skin: ‣ Flush skin and hair with running water (and soap if available). ‣ Remove any adhering solids with industrial skin cleansing cream. ‣ **DO NOT** use solvents. ‣ Seek medical attention in the event of irritation.
Inhalation	If aerosols, fumes or combustion products are inhaled: ‣ Remove to fresh air. ‣ 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. ‣ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ‣ Transport to hospital, or doctor.
Ingestion	‣ Avoid giving milk or oils. ‣ Avoid giving alcohol. Not considered a normal route of entry.

Indication of any immediate medical attention and special treatment needed

For petroleum distillates
· In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
· Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
· Positive pressure ventilation may be necessary.
· Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
· After the initial episode,individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.
· Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.
· Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur.Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.
Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

SMALL FIRE:
‣ Water spray, dry chemical or CO2
LARGE FIRE:
‣ Water spray or fog.

Special hazards arising from the substance or mixture

Fire Incompatibility	‣ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting	‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ May be violently or explosively reactive. ‣ Wear breathing apparatus plus protective gloves. ‣ Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	‣ Liquid and vapour are highly flammable. ‣ Severe fire hazard when exposed to heat or flame. ‣ Vapour forms an explosive mixture with air. ‣ Severe explosion hazard, in the form of vapour, when exposed to flame or spark. Combustion products include: ‣ carbon dioxide (CO2) ‣ other pyrolysis products typical of burning organic material. **Contains low boiling substance:** Closed containers may rupture due to pressure buildup under fire conditions. May emit clouds of acrid smoke

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	‣ Clean up all spills immediately. ‣ Avoid breathing vapours and contact with skin and eyes. ‣ Wear protective clothing, impervious gloves and safety glasses. ‣ Shut off all possible sources of ignition and increase ventilation.
Major Spills	‣ Clear area of personnel and move upwind. ‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ May be violently or explosively reactive. ‣ Wear breathing apparatus plus protective gloves.

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 ‣ Avoid skin contact, including inhalation. ‣ Wear protective clothing when risk of exposure occurs. ‣ Use in a well-ventilated area. ‣ Prevent concentration in hollows and sumps.
Other information	‣ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can ‣ Store in original containers in approved flammable liquid storage area. ‣ **DO NOT** store in pits, depressions, basements or areas where vapours may be trapped. ‣ No smoking, naked lights, heat or ignition sources. ‣ Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	‣ Aerosol dispenser. ‣ Check that containers are clearly labelled.
Storage incompatibility	‣ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	isopropanol	Isopropyl alcohol	200 ppm / 491 mg/m3	983 mg/m3 / 400 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	diacetone alcohol	Diacetone alcohol (4-Hydroxy-4-methyl-2-pentanone)	50 ppm / 238 mg/m3	Not Available	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Individual protection measures, such as personal protective equipment	

Eye and face protection	‣ No special equipment for minor exposure i.e. when handling small quantities. ‣ OTHERWISE: For potentially moderate or heavy exposures: ‣ Safety glasses with side shields. ‣ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.
Skin protection	See Hand protection below
Hands/feet protection	‣ No special equipment needed when handling small quantities. ‣ OTHERWISE: ‣ For potentially moderate exposures: ‣ Wear general protective gloves, eg. light weight rubber gloves. ‣ For potentially heavy exposures: ‣ Wear chemical protective gloves, eg. PVC. and safety footwear.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. **OTHERWISE:** ‣ Overalls. ‣ Skin cleansing cream. ‣ Eyewash 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:
CRC Ambersil Blue Mould Protective FG

Material	CPI
NEOPRENE	A
NITRILE	A
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C

* 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.

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. 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 5 x ES	AK-AUS / Class 1 P2	-	AK-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	AK-2 P2	AK-PAPR-2 P2
up to 50 x ES	-	AK-3 P2	-
50+ x ES	-	Air-line**	-

^ - 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)

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Blue highly flammable liquid with solvent odour; does not mix with water. Supplied as an aerosol pack. Contents under **PRESSURE**. Contains highly flammable hydrocarbon propellant.

Physical state	Liquid	**Relative density (Water = 1)**	0.71 @20C
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Applicable	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (mm2/s)**	Not Available
Initial boiling point and	55	**Molecular weight (g/mol)**	Not Applicable

boiling range (°C)			
Flash point (°C)	-26	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	HIGHLY FLAMMABLE.	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	9.4	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	1.1	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Applicable
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available
Heat of Combustion (kJ/g)	Not Available	**Ignition Distance (cm)**	Not Available
Flame Height (cm)	Not Available	**Flame Duration (s)**	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	**Enclosed Space Ignition Deflagration Density (g/m3)**	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	‣ Elevated temperatures. ‣ Presence of open flame. ‣ Product is considered stable. ‣ Hazardous polymerisation will not occur. ‣ Presence of heat source ‣ Presence of an ignition source
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

a) Acute Toxicity	Based on available data, the classification criteria are not met.
b) Skin Irritation/Corrosion	There is sufficient evidence to classify this material as skin corrosive or irritating.
c) Serious Eye Damage/Irritation	There is sufficient evidence to classify this material as eye damaging or irritating
d) Respiratory or Skin sensitisation	Based on available data, the classification criteria are not met.
e) Mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	Based on available data, the classification criteria are not met.
g) Reproductivity	Based on available data, the classification criteria are not met.
h) STOT - Single Exposure	There is sufficient evidence to classify this material as toxic to specific organs through single exposure
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.
j) Aspiration Hazard	There is sufficient evidence to classify this material as an aspiration hazard

Inhaled	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation hazard is increased at higher temperatures. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. **WARNING**:Intentional misuse by concentrating/inhaling contents may be lethal.

	Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Not normally a hazard due to physical form of product. Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Spray mist may produce discomfort Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn). Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion. The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Harmful: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS] **WARNING**: Aerosol containers may present pressure related hazards.

CRC Ambersil Blue Mould Protective FG	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
Hydrocarbons, C6, isoalkanes, <5% n-hexane	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: 3.35 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]
	Inhalation (Rat) LC50: 0.26 mg/L4h[2]	Skin: adverse effect observed (irritating)[1]
	Oral (Rat) LD50: 16.75 mg/kg[2]	
isopropanol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 12800 mg/kg[2]	Eye (Rodent - rabbit): 100mg - Severe
	Inhalation (Mouse) LC50: 53 mg/L4h[2]	Eye (Rodent - rabbit): 100mg/24H - Moderate
	Oral (Mouse) LD50; 3600 mg/kg[2]	Eye (Rodent - rabbit): 10mg - Moderate
		Eye: adverse effect observed (irritating)[1]
		Skin (Rodent - rabbit): 500mg - Mild
		Skin: no adverse effect observed (not irritating)[1]
oleoylsarcosine	**TOXICITY**	**IRRITATION**
	Inhalation (Rat) LC50: 0.575 mg/l4h[1]	Not Available
	Oral (Rat) LD50: >5000 mg/kg[2]	

diacetone alcohol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 13500 mg/kg[2]	Eye (Human): 100ppm/15M
	Oral (Rat) LD50: 2520 mg/kg[2]	Eye (Rodent - rabbit): 100uL/24H - Severe
		Eye (Rodent - rabbit): 20mg - Severe
		Eye: adverse effect observed (irritating)[1]
		Skin (Rodent - rabbit): 10mg/24H
		Skin (Rodent - rabbit): 500mg - Mild
		Skin: adverse effect observed (irritating)[1]
		Skin: no adverse effect observed (not irritating)[1]
2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50: 870 mg/kg[2]	Eye: adverse effect observed (irreversible damage)[1]
		Skin: adverse effect observed (corrosive)[1]
hydrocarbons, C3-4 rich, petroleum distillate	**TOXICITY**	**IRRITATION**
	dermal (mammal) LD50: >5640 mg/kg[1]	Eye: adverse effect observed (irritating)[1]
	Inhalation (Rat) LC50: 10000 ppm4h[1]	Skin: adverse effect observed (irritating)[1]
	Oral (Rat) LD50: >2000 mg/kg[1]	

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

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE	Most Low Boiling Point Naphthas (LBPNs) have low actute toxicity to oral, dermal and inhalation routes of exposure, and mild to moderate skin and eye irritating effects. However, some heavier 'cracked' LBPNs (LKBPNs with greater olefinic content) have been found to be more irritating to the skin and eyes compared to non-cracked LBPNs. LBPNs are not known to be sensitising to the skin. Animal studies examined the effects of short-term and longer-term exposure to LBPNs through inhalation or oral routes. In male rats specifically, exposure to LBPNs resulted in kidney-related issues like increased kidney weight, kidney lesions, and hyaline droplet formation. However, the same effects were not seen in female rats, mice, or humans due to a mechanism of action involving a particular enzyme only found in male rats. Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. Petroleum contains aromatic (benzene, toluene, ethyl benzene, napthalene) and aliphatic hydrocarbons (n-hexane), which can result in many detrimental health effects, including, cancer, tumour formation, hearing loss, and nervous system toxicity. Animal testing shows breathing in petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. Similarly, exposure to gasoline over a lifetime can cause kidney cancer in animals, but the relevance in humans is questionable. Most studies involving gasoline have shown that gasoline does not cause genetic mutation, including all recent studies in living human subjects (such as in petrol service station attendants). Animal studies show concentrations of toluene (>0.1%) can cause developmental effects such as lower birth weight and developmental toxicity to the nervous system of the foetus. Other studies show no adverse effects on the foetus. Prolonged contact with petroleum may result in skin inflammation and make the skin more sensitive to irritation and penetration by other materials. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
ISOPROPANOL	Isopropanol is irritating to the eyes, nose and throat but generally not to the skin. Prolonged high dose exposure may also produce depression of the central nervous system and drowsiness. Few have reported skin irritation. It can be absorbed from the skin or when inhaled. The substance is classified by IARC as Group 3: **NOT** classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
OLEOYLSARCOSINE	The amino acids alkyl amides are most likely to dissociate into amino acids and fatty acids in the presence of water. Because most of these amino acids and fatty acids are found in the foods we consume daily, oral toxicity is not expected. In turn, skin toxicity would not be expected to be different from oral exposure. Data from previous safety assessments support the notion that these ingredients would not likely cause irritation or sensitization. Testing has also not shown any evidence of light-related toxicity or genetic toxicity. The likelihood of formation of nitrosamines (which cause cancer) is thought to be low. For sarcosine: Motor impairment and respiratory issues have been observed in rats at 10mg/kg. This equates to 800 mg for an 80 kg person. Sarcosine was reported to activate prostate cancer cells and to indicate the malignancy of prostate cancer cells when measured in urine Sarcosine was identified as a differential metabolite that was greatly increased during prostate cancer progression to

	metastasis and could be detected in urine. Sarcosine levels seemed to control the invasiveness of the cancer. This conclusion has been disputed Sarcosine has been investigated in relation to schizophrenia. Toxicological data is available and well documented for representative toluene, xylene and cumene sulfonates (including sodium, potassium, ammounium and calcium salts). These data show that hydrotropes have low toxicity for all routes, do not cause genetic damage, show no evidence of causing cancer in long-term skin studies, and have not caused birth defects, developmental defects or reduced fertility. <
DIACETONE ALCOHOL	Inhalation (human) TCLo: 400 ppm resp.effect Diacetone alcohol (DAA) is irritating to the skin and eyes, but the oral lethal dose is more than 4000mg/kg. Animal testing showed some effects to the kidney and liver. It has not been shown to cause reproductive or developmental toxicity or genetic damage, but it may reduce fertility. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
2-(8-HEPTADECENYL)-4,5-DIHYDRO-1H-IMIDAZOLE-1-ETHANOL	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. For imidazoline surfactants (amidoamine/ imidazoline - AAIs) All substances within the AAI group show the same reactive groups, show similar composition of amide, imidazoline, and some dimer structures of both, with the length of original EA amines used for production as biggest difference. Inherent reactivity and toxicity is not expected to differ much between these substances. All in vivo skin irritation/corrosion studies performed on AAI substances all indicate them to be corrosive following 4 hour exposure. There do not seem to be big differences in response with the variation on EA length used for the production of the AAI. The available data available for AAI substances indicate that for AAI based on shorter polyethyleneamines (EA), higher toxicity is observed compared to AAI based on longer EA. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. Generally these amphoteric surfactants do not seem to irritate the skin, but they mildly irritate the eye. They also do not cause mutations. Information on effects on reproduction and ability to cause cancer is unavailable.
HYDROCARBONS, C3-4 RICH, PETROLEUM DISTILLATE	inhalation of the gas
HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE & DIACETONE ALCOHOL & 2-(8-HEPTADECENYL)-4,5-DIHYDRO-1H-IMIDAZOLE-1-ETHANOL & HYDROCARBONS, C3-4 RICH, PETROLEUM DISTILLATE	No significant acute toxicological data identified in literature search.
ISOPROPANOL & OLEOYLSARCOSINE & 2-(8-HEPTADECENYL)-4,5-DIHYDRO-1H-IMIDAZOLE-1-ETHANOL	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.
ISOPROPANOL & DIACETONE ALCOHOL & 2-(8-HEPTADECENYL)-4,5-DIHYDRO-1H-IMIDAZOLE-1-ETHANOL	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.

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: ✗ ***– Data either not available or does not fill the criteria for classification***
✓ ***– Data available to make classification***

SECTION 12 Ecological information

Toxicity

CRC Ambersil Blue Mould Protective FG

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	48h	Crustacea	0.64mg/l	2
EC50	96h	Algae or other aquatic plants	64mg/l	2
NOEC(ECx)	504h	Crustacea	0.17mg/l	2
LC50	96h	Fish	0.11mg/l	2

isopropanol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	>1000mg/l	1
EC50	48h	Crustacea	7550mg/l	4
EC50	96h	Algae or other aquatic plants	>1000mg/l	1
EC50(ECx)	24h	Algae or other aquatic plants	0.011mg/L	4
LC50	96h	Fish	>1400mg/L	4

oleoylsarcosine

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	504h	Crustacea	0.102mg/L	2
EC50	48h	Crustacea	0.43mg/l	2
LC50	96h	Fish	>0.43mg/l	2

diacetone alcohol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	>1000mg/l	2
EC50	48h	Crustacea	>1000mg/l	2
NOEC(ECx)	504h	Crustacea	100mg/l	2
LC50	96h	Fish	>100mg/l	2

2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	0.017mg/l	2
EC50	48h	Crustacea	0.163mg/l	2
NOEC(ECx)	72h	Algae or other aquatic plants	0.011mg/l	2

hydrocarbons, C3-4 rich, petroleum distillate

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	32mg/l	2
EC50	48h	Crustacea	10mg/l	2
EC50	96h	Algae or other aquatic plants	7.039mg/l	2
LC50	96h	Fish	5.3mg/l	2
NOEC(ECx)	768h	Fish	0.8mg/l	2

Legend: ***Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. US EPA, Ecotox database - Aquatic Toxicity Data 4. ECETOC Aquatic Hazard Assessment Data 5. NITE (Japan) - Bioconcentration Data 6. METI (Japan) - Bioconcentration Data 7. Vendor Data 8. User defined data***

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
oleoylsarcosine	LOW	LOW
diacetone alcohol	HIGH	HIGH
2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
isopropanol	LOW (LogKOW = 0.05)
oleoylsarcosine	HIGH (LogKOW = 6.83)
diacetone alcohol	LOW (LogKOW = -0.14)
2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	LOW (LogKOW = 7.51)
hydrocarbons, C3-4 rich, petroleum distillate	LOW (LogKOW = 2.36)

Mobility in soil

Ingredient	Mobility
isopropanol	HIGH (Log KOC = 1.06)
oleoylsarcosine	LOW (Log KOC = 17090)
diacetone alcohol	HIGH (Log KOC = 1)
2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	LOW (Log KOC = 206300)

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. ‣ Consult State Land Waste Management Authority for disposal. ‣ Discharge contents of damaged aerosol cans at an approved site. ‣ Allow small quantities to evaporate. ‣ **DO NOT** incinerate or puncture aerosol cans.

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.

SECTION 14 Transport information

Labels Required

	
Marine Pollutant	
HAZCHEM	Not Applicable

Land transport (UN)

14.1.	**UN number or ID number**	1950
14.2.	**UN proper shipping name**	AEROSOLS
14.3.	**Transport hazard class(es)**	Class: 2.1 Subsidiary Hazard: Not Applicable

14.4. **Packing group**	Not Applicable
14.5. **Environmental hazard**	Environmentally hazardous
14.6. **Special precautions for user**	Special provisions: 63; 190; 277; 327; 344; 381 Limited quantity: 1000ml

Air transport (ICAO-IATA / DGR)

14.1. **UN number**	1950
14.2. **UN proper shipping name**	Aerosols, flammable (engine starting fluid)
14.3. **Transport hazard class(es)**	ICAO/IATA Class: 2.1 ICAO / IATA Subsidiary Hazard: Not Applicable ERG Code: 10L
14.4. **Packing group**	Not Applicable
14.5. **Environmental hazard**	Environmentally hazardous
14.6. **Special precautions for user**	Special provisions: A1 A145 A167 A802 Cargo Only Packing Instructions: 203 Cargo Only Maximum Qty / Pack: 150 kg Passenger and Cargo Packing Instructions: Forbidden Passenger and Cargo Maximum Qty / Pack: Forbidden Passenger and Cargo Limited Quantity Packing Instructions: Forbidden Passenger and Cargo Limited Maximum Qty / Pack: Forbidden

Sea transport (IMDG-Code / GGVSee)

14.1. **UN number**	1950
14.2. **UN proper shipping name**	AEROSOLS
14.3. **Transport hazard class(es)**	IMDG Class: 2.1 IMDG Subsidiary Hazard: Not Applicable
14.4. **Packing group**	Not Applicable
14.5 **Environmental hazard**	Marine Pollutant
14.6. **Special precautions for user**	EMS Number: F-D, S-U Special provisions: 63 190 277 327 344 381 959 Limited Quantities: 1000 ml

14.7. Maritime transport in bulk according to IMO instruments

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
Hydrocarbons, C6, isoalkanes, <5% n-hexane	Not Applicable
isopropanol	Not Applicable
oleoylsarcosine	Not Applicable
diacetone alcohol	Not Applicable
2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	Not Applicable
hydrocarbons, C3-4 rich, petroleum distillate	Not Applicable

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Hydrocarbons, C6, isoalkanes, <5% n-hexane	Not Applicable
isopropanol	Not Applicable
oleoylsarcosine	Not Applicable
diacetone alcohol	Not Applicable
2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol	Not Applicable
hydrocarbons, C3-4 rich, petroleum distillate	Not Applicable

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
HSR002515	Aerosols (Flammable) Group Standard 2017

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

Hydrocarbons, C6, isoalkanes, <5% n-hexane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities

isopropanol is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

oleoylsarcosine is found on the following regulatory lists

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

diacetone alcohol is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol is found on the following regulatory lists

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)

hydrocarbons, C3-4 rich, petroleum distillate is found on the following regulatory lists

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

Additional Regulatory Information

Not Applicable

Hazardous Substance Location

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

Hazard Class	Quantity (Closed Containers)	Quantity (Open Containers)
2.1.2A	3 000 L (aggregate water capacity)	3 000 L (aggregate water capacity)

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
2.1.2A				1L (aggregate water capacity)

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (Hydrocarbons, C6, isoalkanes, <5% n-hexane; isopropanol; oleoylsarcosine; diacetone alcohol; 2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol; hydrocarbons, C3-4 rich, petroleum distillate)
China - IECSC	Yes
Colombia - Colombia National Industrial Chemicals Inventory	No (Hydrocarbons, C6, isoalkanes, <5% n-hexane; isopropanol; oleoylsarcosine; diacetone alcohol; 2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol; hydrocarbons, C3-4 rich, petroleum distillate)
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (Hydrocarbons, C6, isoalkanes, <5% n-hexane; hydrocarbons, C3-4 rich, petroleum distillate)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	No (hydrocarbons, C3-4 rich, petroleum distillate)
USA - TSCA	All chemical substances in this product have been designated as TSCA Inventory ‘Active'
Taiwan - TCSI	Yes
Mexico - INSQ	No (hydrocarbons, C3-4 rich, petroleum distillate)
Vietnam - NCI	Yes
Russia - FBEPH	No (oleoylsarcosine; hydrocarbons, C3-4 rich, petroleum distillate)
UAE - Control List (Banned/Restricted Substances)	No (Hydrocarbons, C6, isoalkanes, <5% n-hexane; isopropanol; oleoylsarcosine; diacetone alcohol; 2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol; hydrocarbons, C3-4 rich, petroleum distillate)
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	10/12/2021
Initial Date	08/06/2018

SDS Version Summary

Version	Date of Update	Sections Updated
3.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
4.1	10/12/2021	Classification change due to full database hazard calculation/update.

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.

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。
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- 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
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- MARPOL: International Convention for the Prevention of Pollution from Ships
- IMSBC: International Maritime Solid Bulk Cargoes Code
- IGC: International Gas Carrier Code
- IBC: International Bulk Chemical Code

- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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