SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name **MAK-AFL**

Synonyms MAK - AFL (POST AUGUST 2014) ● MAK-AFL

1.2 Uses and uses advised against

Uses DEFOAMER

1.3 Details of the supplier of the product

Supplier name **MAK INDUSTRIAL WATER SOLUTIONS PTY LTD**

Address 36 Beringarra Ave, Malaga, Western Australia, 6090, AUSTRALIA

Telephone +61 8 9249 8007

Fax +61 8 9249 8004

Email service.wa@makwater.com.au

Website http://makwater.com.au

1.4 Emergency telephone numbers

Emergency +61 8 9249 8007

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Flammable Liquids: Category 4

Health Hazards

Aspiration Hazard: Category 1
Repeated exposure may cause skin dryness or cracking.

Environmental Hazards

Not classified as an Environmental Hazard

2.2 GHS Label elements

Signal word **DANGER**

Pictograms

Hazard statements

AUH066	Repeated exposure may cause skin dryness or cracking.
H227	Combustible liquid.
H304	May be fatal if swallowed and enters airways.

Prevention statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response statements

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage statements

P403	Store in a well-ventilated place.
P405	Store locked up.

Disposal statements

P501	Dispose of contents/container in accordance with relevant regulations.

2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
GAS OIL, BLEND	64741-44-2	265-044-7	30 to 60%
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	64742-47-8	265-149-8	10 to 20%
PARAFFIN WAX	8002-74-2	232-315-6	0.1 to 1%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Rinse mouth out with water and give plenty of water to drink.

First aid facilities None allocated.

4.2 Most important symptoms and effects, both acute and delayed

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Consider gastric lavage with protected airway, administration of activated charcoal.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture

No information provided.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection systems.

7.3 Specific end uses
No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m³	ppm	mg/m³
Mineral Oil Mist	SWA [AUS]	--	5	--	--
Paraffin wax (fume)	SWA [AUS]	--	2	--	--

Biological limits
No biological limit values have been entered for this product.

8.2 Exposure controls
Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

Eye / Face	Wear splash-proof goggles.
Hands	Wear PVC or rubber gloves. With prolonged use, wear viton® or nitrile gloves.
Body	When using large quantities or where heavy contamination is likely, wear coveralls. With prolonged use, wear coveralls.
Respiratory	Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance CLEAR LIGHT YELLOW LIQUID

9.1 Information on basic physical and chemical properties

Odour	HYDROCARBON ODOUR
Flammability	CLASS C1 COMBUSTIBLE
Flash point	92°C (cc)
Boiling point	132.2°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Relative density	0.84
Solubility (water)	INSOLUBLE
Vapour pressure	0.68 kPa @ 37.8°C
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	10 cps @ 22.2°C
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

Pour point	-45°C

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met. Ingestion of large quantities may result in nausea, vomiting, abdominal pain and diarrhoea.

Information available for the ingredients:

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
GAS OIL, BLEND	--	--	1700 mg/m³/4 hours (rat)
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	> 2000 mg/kg (rat)	> 2000 mg/kg (rabbit)	--
PARAFFIN WAX	> 5,000 mg/kg (rat)	> 3,600 mg/kg (rabbit)	--

Skin Not classified as a skin irritant. Prolonged or repeated contact may result in drying and defatting of the skin, rash and dermatitis.

Eye Not classified as an eye irritant. Contact may result in mild irritation, lacrimation and redness.

Sensitisation	Not classified as causing skin or respiratory sensitisation.
Mutagenicity	Not classified as a mutagen.
Carcinogenicity	Not classified as a carcinogen. Highly refined mineral oils are not classifiable as to its carcinogenicity in humans (IARC Group 3).
Reproductive	Not classified as a reproductive toxin.
STOT - single exposure	Not classified as causing organ damage from single exposure. Due to product form / nature of use, an inhalation hazard is not anticipated with normal use. However, if product is heated or mists generated, exposure may result in respiratory irritation, headache and nausea.
STOT - repeated exposure	Not classified as causing organ damage from repeated exposure.
Aspiration	Aspiration into the lungs may result in chemical pneumonitis and pulmonary oedema.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

This product can float on water, restricting oxygen exchange with possible asphyxiation of aquatic life. LC50 (rainbow trout) is 310 mg/L/96 hours; LC50 (daphnia magna) is 220 mg/L/48 hours.

12.2 Persistence and degradability

Expected to be inherently biodegradable.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

Low solubility and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

12.5 Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal	Reuse where possible or return to manufacturer/supplier. May be recycled. Do not release to drains or waterways. Contact the manufacturer/supplier for additional information (if required).
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	None allocated.	None allocated.	None allocated.
14.2 Proper Shipping Name	None allocated.	None allocated.	None allocated.
14.3 Transport hazard class	None allocated.	None allocated.	None allocated.
14.4 Packing Group	None allocated.	None allocated.	None allocated.

14.5 Environmental hazards

No information provided.

14.6 Special precautions for user

Hazchem code None allocated.

15. REGULATORY INFORMATION

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

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).

Inventory listings **AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals)**
All components are listed on AIIC, or are exempt.

16. OTHER INFORMATION

Additional information

MINERAL OILS - SOLVENT REFINED: Animal experiments and human experience have not shown cancer risks when handling solvent refined mineral oils, unlike non refined mineral oils.
CLEANING MINERAL OIL CONTAMINATED CLOTHING: Cleaners are advised that when cleaning oil contaminated clothing it is essential that freshly distilled solvent is used for each batch, including final rinse, as even filtered solvent will leave oil residues.

MINERAL OILS - USED: Used mineral oils in engine crankcases and other high temperature/high stress environments may contain potentially harmful residues, some of which have been shown to cause irreversible skin effects, including cancer. Prolonged and repeated inhalation of mists associated with used mineral oils may result in pulmonary fibrosis.

MINERAL OILS - INJECTION: Where high pressure applications are used the risk of accidental injection under the skin exists and may result in an extremely painful and serious injury requiring immediate medical attention. Depending on the pressure used, mineral oils may be injected a considerable distance below the skin and may cause permanent tissue damage. SEEK IMMEDIATE MEDICAL ATTENTION. EXERCISE EXTREME CARE WHEN USING HIGH PRESSURE EQUIPMENT.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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