

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** MAK-MPL

**Synonyms** MAK MPL

#### 1.2 Uses and uses advised against

**Uses** CHLORINE NEUTRALISER

#### 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](mailto: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

Not classified as a Physical Hazard

##### Health Hazards

Acute Toxicity: Oral: Category 4

Skin Corrosion/Irritation: Category 1C

Serious Eye Damage / Eye Irritation: Category 1

Contact with acids liberates toxic gas.

##### Environmental Hazards

Aquatic Toxicity (Chronic): Category 3

#### 2.2 GHS Label elements

**Signal word** DANGER

##### Pictograms



##### Hazard statements

AUH031	Contact with acids liberates toxic gas.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

**PRODUCT NAME MAK-MPL****Prevention statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**Response statements**

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P321	Specific treatment is advised - see first aid instructions.
P363	Wash contaminated clothing before reuse.

**Storage statements**

P405	Store locked up.
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**Disposal statements**

P501	Dispose of contents/container in accordance with relevant regulations.
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**2.3 Other hazards**

No information provided.

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**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

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**3.1 Substances / Mixtures**

Ingredient	CAS Number	EC Number	Content
SODIUM METABISULPHITE	7681-57-4	231-673-0	30 to 50%
WATER	7732-18-5	231-791-2	50 to 70%

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**4. FIRST AID MEASURES**

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**4.1 Description of first aid measures**

<b>Eye</b>	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.
<b>Inhalation</b>	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
<b>Skin</b>	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.
<b>Ingestion</b>	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
<b>First aid facilities</b>	Eye wash facilities and safety shower should be available.

**4.2 Most important symptoms and effects, both acute and delayed**

See Section 11 for more detailed information on health effects and symptoms.

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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**5.1 Extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**5.2 Special hazards arising from the substance or mixture**

Non flammable. May evolve toxic gases (sulphur oxides) when heated to decomposition.

### 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

2X  
 2 Fine Water Spray.  
 X Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.

## 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. Contact emergency services where appropriate.

### 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. Large storage areas should be bunded and have appropriate ventilation 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/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Sodium metabisulphite	SWA [AUS]	--	5	--	--

#### 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.

**PPE**

<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear PVC or rubber gloves.
<b>Body</b>	Wear coveralls.
<b>Respiratory</b>	Where an inhalation risk exists, wear a Type E (sulphur dioxide) respirator. At high vapour levels, wear an Air-line respirator.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	CLEAR LIQUID
<b>Odour</b>	PUNGENT SULPHUROUS ODOUR
<b>Flammability</b>	NON FLAMMABLE
<b>Flash point</b>	NOT RELEVANT
<b>Boiling point</b>	NOT AVAILABLE
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	3.0 to 4.5
<b>Vapour density</b>	NOT AVAILABLE
<b>Relative density</b>	1.32 to 1.34
<b>Solubility (water)</b>	MISCIBLE
<b>Vapour pressure</b>	NOT AVAILABLE
<b>Upper explosion limit</b>	NOT RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	150°C
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

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## 10. STABILITY AND REACTIVITY

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### 10.1 Reactivity

Contact with acids liberates toxic gas.

### 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), metals, heat and ignition sources.

### 10.6 Hazardous decomposition products

May evolve toxic gases (sulphur oxides) when heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 Information on toxicological effects

**PRODUCT NAME    MAK-MPL****Acute toxicity**            Harmful if swallowed.**Information available for the ingredients:**

<b>Ingredient</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
SODIUM METABISULPHITE	1540 mg/kg (rat)	> 2000 mg/kg (rat)	> 5.5 mg/l/4hrs (rat)

<b>Skin</b>	Contact may result in irritation, redness, pain, rash, dermatitis and possible burns.
<b>Eye</b>	Contact may result in irritation, lacrimation, pain, redness and corneal burns with possible serious eye damage.
<b>Sensitisation</b>	Some individuals are hypersensitive to sulphites and may experience adverse reactions following exposure. Individuals known to be hypersensitive or with existing respiratory problems (eg asthma) are advised to avoid exposure.
<b>Mutagenicity</b>	Not classified as a mutagen.
<b>Carcinogenicity</b>	Not classified as a carcinogen.
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT - single exposure</b>	Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in breathing difficulties. When used in confined or poorly ventilated areas, hazardous sulphur dioxide evolved may present a hazard.
<b>STOT - repeated exposure</b>	Not classified as causing organ damage from repeated exposure. Adverse effects are generally associated with single exposure.
<b>Aspiration</b>	Not classified as causing aspiration.

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**12. ECOLOGICAL INFORMATION**

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**12.1 Toxicity**

Harmful to aquatic life with long lasting effects.

**12.2 Persistence and degradability**

Not applicable for inorganic substances.

**12.3 Bioaccumulative potential**

Not applicable for inorganic substances.

**12.4 Mobility in soil**

No information provided.

**12.5 Other adverse effects**

No information provided.

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**13. DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

<b>Waste disposal</b>	For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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**14. TRANSPORT INFORMATION**

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**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<b>14.1 UN Number</b>	2693	2693	2693
<b>14.2 Proper Shipping Name</b>	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (contains sodium metabisulphite)	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (contains sodium metabisulphite)	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (contains sodium metabisulphite)
<b>14.3 Transport hazard class</b>	8	8	8
<b>14.4 Packing Group</b>	III	III	III

#### **14.5 Environmental hazards**

No information provided.

#### **14.6 Special precautions for user**

<b>Hazchem code</b>	2X
<b>GTEPG</b>	8A1
<b>EmS</b>	F-A, S-B

## **15. REGULATORY INFORMATION**

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

<b>Poison schedule</b>	Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Classifications</b>	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
<b>Inventory listings</b>	<b>AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals)</b> All components are listed on AIIC, or are exempt.

## **16. OTHER INFORMATION**

<b>Additional information</b>	<p><b>RESPIRATORS:</b> In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.</p> <p><b>WORKPLACE CONTROLS AND PRACTICES:</b> Unless a less toxic chemical can be substituted for a hazardous substance, <b>ENGINEERING CONTROLS</b> are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.</p> <p><b>PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:</b> 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.</p> <p><b>HEALTH EFFECTS FROM EXPOSURE:</b> 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.</p>
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**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/m <sup>3</sup>	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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