EpiMax SAFETY DATA SHEET

Product Name **EpiMax EpiShine**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name	**EPIMAX TECHNOLOGIES PTY LTD**
Address	23 Hargraves Place, Wetherill Park 2164, NSW, Australia
Telephone	1300 721 522
Fax	(02) 9904 3207
Emergency	1300 721 522
Synonym(s)	Concrete densifier and sealer
Use(s)	Mixed alkali silicate solution
SDS Date	11/08/22

2. HAZARDS IDENTIFICATION

GHS Classifications

Eye Damage /Irritation: Category 2A
Skin Corrosion/ Irritation: Category 2

SIGNAL WORD **WARNING**

HAZARD STATEMENTS

H315	Causes skin irritation
H319	Causes serious eye irritation

RESPONSE STATEMENTS

P264	Wash skin thoroughly after handling
P280	Wear protective gloves, protective clothing and eye or face protection
P302+P352	IF ON SKIN: Was with plenty of soap and water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing
P332+P313	If skin irritation occurs, get medical advice
P337+P313	If eye irritation persists, get medical advice
P362	Take off contaminated clothing and wash before reuse

P410	Protect from sunlight
P411	Store at temperatures not exceeding 30C
P402+P404	Store in a dry place. Store in a closed container
P501	If they cannot be recycled, disposed of contents to an approved waste disposal plant and containers to landfill.

UN No.	NOT AVAILABLE	**DG CLASS**	NOT AVAILABLE	**Subsidiary Risk(s)**	None Allocated
Packing Group	NOT AVAILABLE	**Hazchem Code**	NOT AVAILABLE		

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS NO.	Content
SODIUM SILICATE	NOT AVAILABLE	1344-09-8	>5%- 10%
POTASSIUM SILICATE	NOT AVAILABLE	7732-18-5	<5%
LITHIUM SILICATE	NOT AVAILABLE	12627-14-4	<5%
ACRYLIC COPOLYMER	NOT AVAILABLE	N/A	10%-30%
WATER			To 100

4. 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. To protect rescuer, use a Type A (Organic vapour) respirator or an Airline respirator (in poorly ventilated areas). 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 Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

Special Treatment Treat symptomatically.

5. FIRE FIGHTING MEASURES

Special Hazards None.

Advice for firefighters Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead and zinc. Aqueous solution, not flammable under normal conditions of use. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead and zinc..

Extinguishing Media	In case of fire, use carbon dioxide, dry chemical, foam, dry sand. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used. Try to contain spills, minimise spillage entering drains or water courses.
Hazchem Code	None.

6. ACCIDENTAL RELEASE MEASURES

Spillage

Spilled material is very slippery. Only water will evaporate from a spill of this material. Dries to form glass film which can easily cut skin. Sinks and mixes with water. High pH of this material is harmful to aquatic life.

Clean up methods: For small spills, mop up and neutralise liquid, then discharge to sewer in accordance with federal, state and local regulations or permits. For large spills, Keep unnecessary people away; isolate hazard are and deny entry. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Isolate, dike, and store discharged material, is possible. Use sand or earth to contain spilled material. If containment is impossible, neutralise contaminated area and flush with large quantities of water

7. STORAGE AND HANDLING

Storage

Keep containers closed at all times. Store away from acids and foodstuffs. Store in clean steel or plastic containers. Separate from acids, reactive metals and ammoniunm salts. Storage temperature 0 - 95°C. Loading temperature 45 - 95°C. Do not store in aluminium, fibreglass, copper, brass, zinc or galvanised containers. Mild steel is the most suitable material of construction for drums, tanks, valves, pipework, etc. Concrete storage tanks can be used but must be strong enough to hold the weight of Potassium Silicate solution to be stored and thick enough to prevent seepage of water.

8. EXPOSURE CONTROLS / PERSONAL PROTECTIONS

Biological Limits	No biological limit allocated.
Engineering Controls	Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.
PPE	Wear splash-proof goggles, nitrile or viton (R) gloves, coveralls. A respirator is not usually needed. If spraying, with prolonged use, or if in confined areas, wear: impervious coveralls and an Air-line respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	HAZY HOMOGENOUS LIQUID	**Solubility (water)**	INSOULUBLE
Odour	CHARACTERISTIC ODOUR	**Specific Gravity**	1.10-1.16
pH	NOT AVAILABLE	**% Volatiles**	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	**Flammability**	NOT AVAILABLE
Vapour Density	NOT AVAILABLE	**Flash Point**	NOT AVAILABLE
Boiling Point	100°C	**Upper Explosion Limit**	NOT AVAILABLE
Melting Point	NOT AVAILABLE	**Lower Explosion Limit**	NOT AVAILABLE
Evaporation Rate	NOT AVAILABLE		
Autoignition Rate	NOT DETERMINED	**Decomposition Temperature**	NOT AVAILABLE
Partition Coefficient	NOT AVAILABLE	**Viscosity**	100-500 (cps)

10. STABILITY AND REACTIVITY

Chemical Stability	Chemical stable
Conditions to avoid	This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated.
Material to avoid	None
Hazardous	Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke.
Decomposition	Water is also formed. May form hydrogen chloride gas, other compounds of chlorine.
Products	Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Hazardous Reactions	None.

11. TOXICOLOGICAL INFORMATION

Health hazard summary	This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. May cause sensitisation by skin contact. The cured product is considered non toxic.
Eye	Severe Irritant. This material has not been tested for primary eye irritation. However, on the basis of it's similarity to Sodium Silicate solutions in composition and alkalinity it is regarded as a severe eye irritant.
Inhalation	Dust is mildly irritating to the nose, throat and respiratory tract and may cause coughing and sneezing. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.
Skin	When tested for primary skin irritation potential, similar potassium silicate solutions produced no irritation to intact skin but well defined irritation to abraded skin. Human experience confirms that irritation occurs when this material gets on clothes at the collar, cuffs or other areas when abrasion may occur.
Ingestion	Irritant. Moderate toxicity. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, dizziness and unconsciousness.
Toxicity Data	There is no toxicological information available for this product.

12. ECOLOGICAL INFORMATION

Other adverse effects

Avoid contaminating waterways. Soluble in water. Sinks and mixes with water. Only water will evaporate from this material. The ecotoxicity of Potassium Silicate has not been tested. The following data is reported for chemically similar Sodium Silicates on a 100% solids basis: A 96 hour median tolerance for fish (Gambusia affnis) of 2320 ppm; a 96 hour median tolerance for water fleas (Daphnia magna) of 247 ppm; 1 96 hour median tolerance for snail eggs (Lymnea) of 632 ppm; and a 96 hour median tolerance for Amphipoda of 160 ppm. These products contain 30-60% Potassium Silicate.

Persistance and degradation: This material is not persistent in aquatic systems but it's high pH when undiluted or unneutralised is acutely harmful to aquatic life. Diluted material rapidly depolymerises to yield dissolved silica in a form that is indistinguishable from natural dissolved silica. It does not contribute to BOD. This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Neither silica nor potassium will appreciable bioconcentrate up the food chain.

Mobility: Expected to be mobile in soil. Diluted material rapidly depolymerises to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.

Bioaccumulative potential: No data available.

13. DISPOSAL CONSIDERATIONS

Legislation

This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable in-house, consider controlled incineration, or contact a specialist waste disposal company

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD THE CRITERIA OF THE ADG CODE

Shipping Name	NONE ALLOCATED				
UN No.	NONE ALLOCATED	**UN No.**	NONE ALLOCATED	**UN No.**	NONE ALLOCATED
Packing Group	NONE ALLOCATED	**Packing Group**	NONE ALLOCATED	**Packing Group**	

15. REGULATORY INFORMATION

Poison Schedule

Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS

All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Product Name: **EpiMax EpiShine**

Additional information

WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (eg. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

RESPIRATORS: 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.

ABBREVIATIONS:
ACGIH - American Conference of Industrial Hygienists.
ADG - Australian Dangerous Goods.
BEI - Biological Exposure Indice(s).
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
CNS - Central Nervous System.
EC No - European Community Number.
HSNO - Hazardous Substances and New Organisms.
IARC - International Agency for Research on Cancer.
mg/m^3 - Milligrams per Cubic Metre.
NOS - Not Otherwise Specified.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
PPM - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
STEL - Short Term Exposure Limit.
SWA - Safe Work Australia.
TWA - Time Weighted Average.