


## SECTION 1 – STATEMENT OF CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	<b>DENSIFY - LiK</b>		
SUPPLIER:	Solutions – Sealers for Stone & Tile.		
ADDRESS:	2/27 Central Park Drive, Yandina QLD 4561, Australia.		
TELEPHONE:	1300 4 STONE (78663)	FAX:	+ 61 7 5446 7381
EMERGENCY PHONE:	13 1126 in Australia 0800 764 766 in New Zealand	Email:	info@solutionssealers.com.au
Substance:	Water based liquid	Product Use:	Silicate hardener
Creation Date:	April 2023	Revision Date:	April 2028

## SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture	
Poisons Schedule	S5 (alkaline salts)
Dangerous Goods	Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail"
GHS Classification	Based on available information, this material is classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS7) including Work, Health and Safety regulations, Australia. <ul style="list-style-type: none"> <li>• Eye Irritation Category 2A</li> <li>• Specific Target Organ Toxicity Category 3</li> <li>• Skin Irritation Category 2</li> </ul>
Label elements	
GHS label pictograms	 GHS07
Signal word	<b>WARNING</b>
Hazard statement(s)	
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
Precautionary statement(s): General	
P102	Keep out of reach of children.
P103	Read label before use.
Precautionary statement(s): Prevention	
P264	Wash hands and skin thoroughly after handling
P280	Wear eye protection/ face protection/ protective gloves.
P261	Avoid breathing dust/fume/ gas/mist/ vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
Precautionary statement(s): Response	
P302+P352	IF ON SKIN: Wash with plenty of water/...
P321	Specific treatment (see First Aid Measures on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.

<b>P362 +P364</b>	Take off contaminated clothing and wash it before reuse.
<b>P304 + P340</b>	IF INHALED: remove person to fresh air and keep comfortable for breathing.
<b>P312</b>	Call a POISON CENTER/doctor/...if you feel unwell.
<b>P305 + P351 + P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P337 + P313</b>	If eye irritation persists: Get medical advice/attention.
<b>Precautionary statement(s): Storage</b>	
<b>P403+P233</b>	Store in a well-ventilated place. Keep container tightly closed.
<b>P405</b>	Store locked up.
<b>Precautionary statement(s): Disposal</b>	
<b>P501</b>	Dispose of contents/ container in accordance with local regulations.
<b>Note</b>	
<b>IMPORTANT</b>	This SDS and the Hazard Classifications contained therein, only apply to the product in its concentrated form, as supplied. When diluted to <b>1:10</b> or greater with water, they no longer apply. However, good hygiene and housekeeping practices should be adhered to.

### SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Proportion:
Potassium silicate	1312-76-1	< 10% w/w
Lithium silicate	12627-14-4	<10% w/w
Ingredients determined to be non-hazardous at concentrations present.	various	To 100 % w/w

NOTE: Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from Safe Work Australia: Hazardous Chemical Information System (HCIS), European Chemicals Agency (ECHA), or have been found NOT to meet the criteria of a hazardous substance as defined in the Safe Work Australia publication "Approved Criteria for Classifying Hazardous Substances", or have been found NOT to meet the criteria of a dangerous substance as defined in the GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS7). Listed ingredients may be below the cut-off concentrations for classification as hazardous, but are listed for information purposes and for additive effects.

### SECTION 4 – FIRST AID MEASURES

<b>Inhalation</b>	Remove victim to fresh air away from exposure. Obtain medical attention if symptoms occur.
<b>Skin contact</b>	Immediately wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness persists.
<b>Eye contact</b>	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek medical advice (e.g. doctor).
<b>Advice to Doctor</b>	Treat symptomatically.
<b>Scheduled Poisons</b>	Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 0800 764 766).
<b>First Aid Facilities</b>	Eye wash station. Normal washroom facilities.

### SECTION 5 – FIRE FIGHTING MEASURES

<b>Fire and Explosion Hazards</b>	Non flammable liquid. However, on evaporation of the aqueous component, the residual material may burn.
<b>Extinguishing Media</b>	Use an extinguishing media suitable for surrounding fires. Dry chemical. Water spray. Dry powder. Foam. Carbon dioxide.

<b>Fire Fighting</b>	Keep containers exposed to extreme heat cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion or decomposition.
<b>Flash Point</b>	None




## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures</b>	Minor spills do not normally need any special clean-up measures – rinse with water. In the event of a major spill, prevent spillage from entering drains or water courses. Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. As a water based product, if spilt on electrical equipment the product will cause short-circuits. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.
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## SECTION 7 – HANDLING AND STORAGE

<b>Handling</b>	Avoid skin or eye contact with concentrate. Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered. Launder contaminated clothing before re-use.
<b>Storage</b>	Store in a cool, dry, well-ventilated area, out of direct sunlight. Protect from freezing. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Exposure Limits</b>	National Occupational Exposure Limits, as published by Safework Australia: <b>Time-weighted Average (TWA):</b> None established for product. <b>Short Term Exposure Limit (STEL):</b> None established for product.
<b>Ventilation</b>	No special requirements.
<b>Personal Protective Equipment</b>	Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. The following protective equipment should be available;
<b>Eye Protection</b> 	Safety glasses with full face shield should be used for handling concentrate in quantity, cleaning up spills, decanting, etc. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
<b>Hand Protection</b> 	Wear gloves of impervious material such as butyl rubber, natural latex, neoprene, PVC and nitrile – to handle in quantity, clean up spills, decanting, etc. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
<b>Body Protection</b> 	Suitable protective workwear, e.g. sleeves, boots and cotton overalls buttoned at neck and wrist are recommended. Chemical resistant apron is recommended where large quantities are handled.

<b>Respirator</b>	Generally not required for typical applications with diluted solutions as per label directions.
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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Non-viscous liquid	<b>Colour</b>	Clear
<b>Odour</b>	characteristic odour	<b>Specific Gravity</b>	1.05 – 1.12 @ 25 °C
<b>Boiling Point</b>	Approximately 105 – 108 °C	<b>Freezing Point</b>	Approximately 0 °C
<b>Vapour Pressure</b>	Not available	<b>Vapour Density</b>	Not available
<b>Flash Point</b>	Not flammable	<b>Flammable Limits</b>	none
<b>Water Solubility</b>	Miscible in all proportions	<b>pH</b>	11.0 – 12.0 neat
<b>Volatile Organic Compounds (VOC)</b>	0 % v/v	<b>Per Cent Volatile</b>	~80 % v/v
<b>Viscosity</b>	Not available	<b>Odour Threshold</b>	Not available

## SECTION 10 – STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable at normal temperatures and pressure.
<b>Conditions to Avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatibilities</b>	Reducing agents, oxidizing agents.
<b>Hazardous Decomposition</b>	Thermal decomposition may result in the release of toxic and/or irritating fumes.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Inhalation</b>	Inhalation of mists or aerosols can produce mucous membrane and respiratory irritation. Exposure to high concentrations of the product in liquid form or as a mist may lead to possible harmful effects.
<b>Skin contact</b>	Prolonged contact with concentrate may be irritating to skin. The symptoms may include redness, itching and swelling.
<b>Eye contact</b>	Concentrated product causes eye irritation. Eye contact with concentrate will cause stinging, blurring, tearing.
<b>Ingestion</b>	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
<b>Chronic exposure</b>	No known effects.
<b>Toxicology Information</b>	Not toxic, based on ingredients. Oral LD50 (ATE calculated) : >5,000 mg/KG (BODY WEIGHT) Lithium compounds may damage the central nervous system. A large dose may have the following effects: headache, nausea, dizziness, convulsions and kidney damage.
<b>Carcinogen Status</b>	
<b>SAFEWORK</b>	No significant ingredient is classified as carcinogenic by SAFEWORK AUSTRALIA.
<b>NTP</b>	No significant ingredient is classified as carcinogenic by NTP.
<b>IARC</b>	No significant ingredient is classified as carcinogenic by IARC.
<b>Respiratory sensitisation</b>	Not expected to be a respiratory sensitizer.
<b>Skin Sensitisation</b>	Not expected to be a skin sensitizer.
<b>Germ cell mutagenicity</b>	Not considered to be a mutagenic hazard.
<b>Reproductive Toxicity</b>	Not considered to be toxic to reproduction.
<b>STOT-single exposure</b>	May cause respiratory irritation.
<b>STOT-repeated exposure</b>	Not expected to cause toxicity to a specific target organ.
<b>Aspiration Hazard</b>	Not expected to be an aspiration hazard.

## SECTION 12 – ECOLOGICAL INFORMATION

<b>Acute Aquatic Toxicity Product (as sold)</b>	Not harmful to aquatic life. LC50 > 100mg/L. Acute Aquatic Toxicity (ATE Calculated) LC50: 800 - 1400 mg/L. Acute Aquatic Toxicity NOT HAZARDOUS
<b>Persistence and degradability</b>	Inorganic chemical – does not undergo biodegradation. This material is not persistent in aquatic systems, but its high pH when undiluted or unneutralized is acutely harmful to aquatic life. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica. It does not contribute to BOD.
<b>Bio accumulative potential</b>	This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Neither silica nor sodium will appreciably bioconcentrate up the food chain.
<b>Mobility in soil</b>	Expected to be mobile in soil. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.
<b>Other adverse effects</b>	Not available
<b>Environmental Protection</b>	Do not discharge this material into waterways.

## SECTION 13 – DISPOSAL CONSIDERATIONS

	Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.
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## SECTION 14 – TRANSPORT INFORMATION

<b>Labels Required</b>	None allocated.
<b>ADG</b>	Not classified as Dangerous Goods.
<b>IMDG Marine Pollutant</b>	No
<b>HAZCHEM</b>	None allocated.
<b>Land Transport (ADG)</b>	
<b>UN Number</b>	None allocated.
<b>ADG Code</b>	None allocated.
<b>HAZCHEM Code</b>	None allocated.
<b>Special Provisions</b>	None allocated.
<b>Packing Group</b>	None allocated.
<b>Packaging Method</b>	None allocated.
<b>Segregation</b>	None allocated.

## SECTION 15 – REGULATORY INFORMATION

<b>GHS Classification</b>	Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
<b>SUSMP</b>	S5
<b>ADG Code</b>	Not DG
<b>AICIS</b>	All ingredients present on AICIS.

## SECTION 16 – OTHER INFORMATION

<b>Issue Date</b>	24 <sup>th</sup> April 2023
<b>Version Number</b>	V .0 GHS7 first issue.
<b>Prepared by</b>	This Safety Data Sheet has been prepared by Tuwai Specialties on behalf of its client. <a href="mailto:tuwai.wt@bigpond.com">tuwai.wt@bigpond.com</a>

<p><b>Abbreviations and acronyms</b></p>	<p><b>ADG Code:</b> Australian Code for the Transport of Dangerous Goods by Road and Rail.  <b>AICS:</b> Australian Inventory of Chemical Substances.  <b>CAS Number:</b> Chemical Abstracts Service Registry Number.  <b>GHS:</b> Globally Harmonized System of Classification and Labelling of Chemicals  <b>HAZCHEM:</b> An emergency action code of numbers and letters which gives information to emergency services.  <b>HSIS:</b> Hazardous Substances Information System  <b>IARC:</b> International Agency for Research on Cancer.  <b>NOHSC:</b> National Occupational Health and Safety Commission.  <b>NTP:</b> National Toxicology Program (USA).  <b>SDS:</b> Safety Data Sheet  <b>STEL:</b> Short Term Exposure Limit.  <b>SUSMP:</b> Standard for the Uniform Scheduling of Medicines and Poisons.  <b>TWA:</b> Time Weighted Average.  <b>UN Number:</b> United Nations Number.</p>
<p><b>Literature references</b></p>	<p>Preparation of Safety Data Sheets for Hazardous Chemicals – Code of Practice ( Safe Work Australia)  GHS Hazardous Chemical Information List (Safe Work Australia)  Guidance on the Classification of Hazardous Chemicals under the WHS Regulations.  Global Harmonized System of Classification and Labelling of Chemicals (GHS)  “Australian Exposure Standards”. Safework Australia  Australian Code For The Transport Of Dangerous Goods By Road And Rail  Standard for the Uniform Scheduling of Medicines and Poisons  Material Safety Data Sheets – individual raw materials – Suppliers  HSIS – Hazardous Substance Information System – National Safe Work Australia Data Base.  HCIS – Hazardous Chemical Information System – National Safe Work Australia Data Base.  ECHA – European Chemicals Agency.</p>
<p><b>Disclaimer</b></p>	<p>This MSDS summarizes at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.</p>

End of SDS