

## SAFETY DATA SHEET

### Identification: VAPOR LOCK™ 20/21

**What it does:** ULTRA-LOW PERMEABILITY ♦ SHRINKAGE REDUCING WATER/DAMP PROOFING ADMIXTURE

**Company Name:** Biorok

**ABN:** 86 158 108 091 – Under License from SPG

**Address:** Suite 3, Level 1, 42-44 Waymouth Street, Adelaide 5000

**Web:** www.biorok.com.au

**Phone:** +61 08 8212 4052

1. PRODUCT AND COMPANY IDENTIFICATION	
Product Name	<b>Vapor Lock 20/21</b>
Product Use	<i>Water-based concrete admixture that stops the route of moisture migration.</i>
Distributor's Name	<i>BioRok Technologies Pty Ltd Suite 3, Level 1, 42-44 Waymouth Street, Adelaide 5000</i>
Manufacturer's Name	<i>Specialty Products Group (SPG) 6254 Skyway Road, SMITHVILLE, ONTARIO L0R 2A0 CANADA</i>
Emergency Number	<i>131 126 – Australian Poison Information Centre</i>
SDS Revision Date	<i>1<sup>st</sup> April 2019</i>

2. COMPOSITION/INFORMATION ON INGREDIENTS					
Hazardous Ingredients	Weight %	CAS Number	TWA ppm	LD50 ORAL RAT Mg / kg	LC50 INHAL RAT ppm
Silicic acid, Sodium Salt Proprietary Blend	5-25	1344-09-8	N/A	N/A	N/A

3. HAZARD IDENTIFICATION	
Route of entry	<i>Eye contact, Ingestion, Inhalation, Skin contact.</i>
Carcinogenic Status	<i>Not considered carcinogenic by NTP, IARC, and OSHA.</i>
Target organs	<i>Eyes, skin and lungs.</i>
Health Effects: Eye	<i>Moderate irritation expected.</i>
Health Effects: Skin	<i>Moderate irritation expected.</i>
Health Effects: Ingestion	<i>May cause irritation to the mouth, esophagus and stomach and damage to kidney, central nervous system and blood.</i>
Health Effects: Inhalation	<i>Spray mist is irritating to the respiratory system.</i>

4. FIRST AID MEASURES	
First Aid: Eye	<i>Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention.</i>
First Aid: Skin	<i>Immediately flood the skin with large quantities of water. Remove contaminated clothing and shoes. Obtain medical attention.</i>
First Aid: Ingestion	<i>If swallowed, obtain medical attention immediately. If victim is fully conscious, give a cupful of milk. If conscious induce vomiting. Never give anything by mouth to an unconscious person.</i>
First Aid: Inhalation	<i>Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.</i>

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5. FIRE FIGHTING MEASURES	
Conditions of Flammability	Non-flammable. Will not support combustion.
Extinguishing Media	Is compatible with all extinguishing media.
Special Hazards of Product	None. No hazardous combustion products determined.

Protective Equipment for Fire Fighting	Dries to form glass film which can easily cut the skin. Spilled material is very slippery. Can etch glass if not promptly removed.
Flash Point (PMCC) (°C)	Non-flammable.
Upper Flammable Limit %VOL	NA
Lower Flammable Limit %VOL	NA
Auto Ignition Temperature (°C)	NA
Explosion Data – Sensitivity to impact	NA
Explosion Data – Sensitivity to Static Discharge	NA

6. Accidental Release Measures	
Spill Release Measures	Small spills – Mop up and neutralise liquid, dispose in accordance with federal, state and local regulations or permits. Large spills – Isolate hazard area. Do not touch or walk through spilled material. Isolate, dike and store discharged material, if possible. Use sand or earth to contain material. If containment is impossible, neutralise contaminated area and flush with large quantities of water.
Personal Precautions	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves and rubber boots that AS-NZ S1716-2012 approved. Use a NIOSH-approved dust and mist respirator where spray mist occurs.
Environmental Precautions	Prevent the material from entering drains or watercourses. Notify authorities if spill has entered watercourse or sewer.

7. Handling and Storage	
Handling	Avoid contact with eyes, skin and clothing. Avoid breathing mist. Keep container closed. Promptly clean up spills.
Storage	Keep container closed. Store in clean steel or plastic containers. Separate from acids, reactive metals and ammonium salts. Storage temperature 0-95 degrees C. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanised containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Engineering Control Measures	Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.
Respiratory Protection	Use a NIOSH-approved dust and mist respirator where spray mist occurs. Observe Provincial regulations for respiratory use.
Hand Protection	Full-length gloves should be worn during all handling operations. Neoprene gloves.
Eye Protection	Chemical goggles should be worn during all handling operations to protect against splashing.
Body Protection	Discard contaminated protective equipment. If there is danger of splashing, wear overall or apron.
Protecting During Application	During application, adequate ventilation must be provided. Mix in a well-ventilated area. If ventilation is poor, wear respiratory protection. Dries to form glass film which can easily cut the skin. Spilled material is very slippery. Can etch glass if not promptly removed.

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9. PHYSICAL AND CHEMICAL PROPERTIES	
Physical State	<i>Liquid</i>
Odour & Colour	<i>Odourless, clear</i>
Odour Threshold (ppm)	<i>N/A</i>
Specific Gravity	<i>1.2-1.3</i>
Vapour Density (AIR =1)	<i>ND</i>
Vapour Pressure = 20 C	<i>ND</i>
Evaporation Rate	<i>ND</i>
Boiling Range / Point (°C)	<i>ND</i>

Freezing Point (°C)	<i>ND</i>
pH	<i>ND</i>
Coefficient of water / oil distribution	<i>ND</i>
Solubility In Water	<i>Miscible</i>
VOC (G/L)	<i>0</i>

10. STABILITY AND REACTIVITY	
Stability	<i>Stable under normal conditions.</i>
Conditions to avoid	<i>Do Not Freeze.</i>
Materials to avoid	<i>Gels can generate heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminium, tin, lead and zinc. May react with strong oxidising agents.</i>
Hazardous Polymerisation	<i>Will not occur.</i>
Hazardous Decomposition Products	<i>Hydrogen gas.</i>

11. TOXICOLOGICAL INFORMATION	
Effects of acute exposure	<i>Irritation to the eyes and skin is expected. Irritation and burning sensation of mouth, throat, nausea, vomiting and abdominal pain. On inhalation of liquid will cause irritation to mucous membranes, coughing and wheezing.</i>
Effects of chronic exposure	<i>May cause dermatitis and irritation on repeated contact.</i>
Exposure limits	<i>N/A</i>
Irritancy	<i>Moderate irritation expected.</i>
Sensitisation	<i>ND</i>
Carcinogenicity	<i>Not listed as a carcinogen by IARC, NTP or OSHA.</i>
Reproductive toxicity	<i>ND</i>
Teratogenicity	<i>ND</i>
Mutagenicity	<i>ND</i>

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Toxicologically synergistic products	ND
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### 12. ECOLOGICAL INFORMATION

Mobility	<i>Sinks and mixes with water. Diluted material rapidly depolymerises to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.</i>
Persistence / Degradability	<i>This product is not persistent in aquatic systems, but its high pH when undiluted or unneutralised is harmful to aquatic life. Full ecological impact has not been determined.</i>
Bio-Accumulation	<i>Neither silica nor sodium will appreciably bioconcentrate up the food chain.</i>
Eco toxicity	<i>The following data is reported for sodium silicate on a 100% basis: A 96 hour median tolerance for: Fish (Gambusia affinis) of 2320 ppm; Water fleas (Daphnia magna) of 247 ppm; Snail eggs (Lymnea) of 632 ppm; (Amphipoda) of 160 ppm.</i>

### 13. DISPOSAL CONSIDERATIONS

Product Disposal	<i>Absorb product on an inert material (sand or earth) and transfer absorbed product into a waste container. Dispose of in accordance with all applicable local and national regulations.</i>
Container Disposal	<i>Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care.</i>

### 14. TRANSPORTATION INFORMATION

	<b>TDG Classification</b>
Hazard Label: Not Required	<i>Not Regulated, Keep from freezing.</i>
DOT CFR 172.101 Data	<i>Not Regulated by D.O.T</i>
UN Proper Shipping Name	<i>N/A</i>

UN Class	<i>N/A</i>
UN Number	<i>N/A</i>
UN Packaging Group	<i>N/A</i>
Flash Point	<i>None</i>
Hazardous Material	<i>N/A</i>
Hazardous Label	<i>N/A</i>

### 15. REGULATORY INFORMATION

SARA Title III Sect. 304	<i>Not Regulated.</i>
SARA Title III Sect. 311/312	<i>Not Regulated.</i>
SARA Title III Sect. 313	<i>Not Regulated.</i>
WHMIS Classification	<i>CLASS D, DIV.2, SUBDIVISION B-Material causing other toxic effects.</i>
CEPA Status (DSL)	<i>All of the ingredients of this product are listed on the Domestic Substances List.</i>

*This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by CPR.*

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16. OTHER INFORMATION	
Hazard Rating	<i>0 = Minimal; 1 = Slight; 2 = Moderate; 3 = High; 4 = Extreme</i>
	<i>Health = 2</i>
	<i>Flammability = 0</i>
	<i>Reactivity = 0</i>
Abbreviations	<i>N/A: No applicable information found or available</i>
	<i>CAS#: Chemical Abstracts Service Number</i>
	<i>ACGIH: American Conference of Governmental Industrial Hygienists</i>
	<i>OSHA: Occupational Safety and Health Administration</i>
	<i>TLV: Threshold Limit Value</i>
	<i>PEL: Permissible Exposure Limit</i>
	<i>STEL: Short Term Exposure Limit</i>
	<i>NTP: National Toxicology Program</i>
	<i>IARC: International Agency for Research on Cancer</i>
	<i>R: Risk</i>
	<i>S: Safety</i>
	<i>LD50: Lethal Dose 50%</i>
<i>LC50: Lethal Concentration 50%</i>	
Prepared By	<i>Specialty Products Group (SPG)</i>

*Provided data is offered in good faith as typical values and not as a product specification. No warranty, either express or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable, however, each user should review these recommendations.*