



## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** J-LOK RESIN CAPSULES

**Synonyms** J- LOK SINGLE SPEED RESIN (JLS) • J-LOK 5 STAR RESIN (JL5) • J-LOK DUAL SPEED RESIN (JLD) • J-LOK G SERIES RESIN (JG) • J-LOK H SERIES RESIN CAPSULE (H) • J-LOK LOW INSERTION FORCE (LIF) RESIN (JLL, HL) • J-LOK POSTGROUT CABLE RESIN (JLPG, JL5PG) • J-LOK RESIN CAPSULE (JL) • J-LOK TENDON RESIN (JLT) • J-LOK TWIN RESIN (JLH, JL5H) • RAPID DEVELOPMENT (RD) RESIN • SPIN2STALL® RESIN (STS)

#### 1.2 Uses and uses advised against

**Uses** AS PER MANUFACTURER INSTRUCTIONS • BONDING AGENT • REINFORCEMENT

Resin anchoring grout contained within a plastic sheath used for support with rock bolts in mines & tunnels.

#### 1.3 Details of the supplier of the product

**Supplier name** ROCBOLT RESINS PTY LTD

**Address** 40-44 Anzac Avenue, Smeaton Grange, NSW, 2567, AUSTRALIA

**Telephone** 02 4647 8388

**Email** [asykes@rocboltresins.com.au](mailto:asykes@rocboltresins.com.au)

#### 1.4 Emergency telephone numbers

**Emergency** 04 3152 9183

**Emergency** 04 6721 6449

### 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

Skin Corrosion/Irritation: Category 2  
Serious Eye Damage / Eye Irritation: Category 2A  
Toxic to Reproduction: Category 2  
Specific Target Organ Toxicity (Repeated Exposure): Category 2

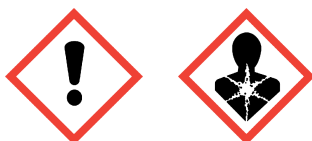
##### Environmental Hazards

Not classified as an Environmental Hazard

#### 2.2 GHS Label elements

**Signal word** WARNING

##### Pictograms



##### Hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H361 Suspected of damaging fertility or the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.

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### Prevention statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

### Response statements

P302 + P352	IF ON SKIN: Wash 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. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment is advised - see first aid instructions.
P362	Take off contaminated clothing and wash before re-use.

### 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

The materials contained in this product may only represent a hazard if the integrity of the packaging is compromised. If the capsule packaging is compromised (eg leaks/splits) the product may cause an allergic skin reaction, skin irritation and serious eye irritation.

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## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

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### 3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
LIMESTONE (CALCIUM CARBONATE)	1317-65-3	215-279-6	>50%
POLYESTER RESIN(S)	39459-88-6	-	<30%
STYRENE	100-42-5	202-851-5	<12.5%
BENZOYL PEROXIDE	94-36-0	202-327-6	<1%

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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. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). 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. Ingestion is considered unlikely due to product form.
<b>First aid facilities</b>	None allocated.

### 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

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

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

Non flammable. May evolve toxic gases (carbon oxides, styrene, hydrocarbons) when heated to decomposition. Styrene may polymerise readily at elevated temperatures and may violently rupture sealed containers.

**5.3 Advice for firefighters**

Non flammable. Evacuate area and contact emergency services. Toxic gases (hydrocarbons, carbon oxides, styrene) may be evolved when heated. 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 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. 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. Eliminate all sources of ignition.

**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 ventilation and 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/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Benzoyl peroxide	SWA [AUS]	--	5	--	--
Calcium carbonate (Limestone, Marble, Whiting)	SWA [AUS]	--	10	--	--
Styrene, monomer	SWA [AUS]	50	213	100	426

**Biological limits**

Ingredient	Determinant	Sampling Time	BEI
STYRENE	Mandelic acid plus phenylglyoxylic acid in urine	End of shift	400 mg/g creatinine
	Styrene in venous blood	End of shift	0.2 mg/L

Reference: ACGIH Biological Exposure Indices

**8.2 Exposure controls**

**Engineering controls** Maintain dust / vapour levels below the recommended exposure standard.

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### PPE

<b>Eye / Face</b>	Wear splash-proof goggles or safety glasses. The selection of PPE is dependent on a detailed site specific risk assessment. This should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.
<b>Hands</b>	Wear barrier gloves.
<b>Body</b>	Wear coveralls. With prolonged use, wear coveralls.
<b>Respiratory</b>	If determined by a risk assessment and inhalation risk exists, wear an organic vapour/particulate respirator or an air supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.



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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>	WHITE CATALYST PREMIX SEPARATED FROM RESIN MASTIC WITH PIGMENTS AND INERT FILLERS, ENCLOSED IN A CAPSULE FILM
<b>Odour</b>	SLIGHT STYRENE SMELL
<b>Flammability</b>	NOT APPLICABLE
<b>Flash point</b>	NOT APPLICABLE
<b>Boiling point</b>	NOT APPLICABLE
<b>Melting point</b>	NOT APPLICABLE
<b>Evaporation rate</b>	NOT APPLICABLE
<b>pH</b>	NOT APPLICABLE
<b>Vapour density</b>	NOT AVAILABLE
<b>Specific gravity</b>	2.0
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour pressure</b>	NOT APPLICABLE
<b>Upper explosion limit</b>	NOT APPLICABLE
<b>Lower explosion limit</b>	NOT APPLICABLE
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

### 9.2 Other information

<b>% Volatiles</b>	NOT APPLICABLE
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## 10. STABILITY AND REACTIVITY

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### 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

Styrene may polymerise with violent rupture/explosion. Polymerises with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

### 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), amines, halogens, sunlight, ferrous salts, heat and ignition sources. May polymerise with violent rupture/explosion.

**10.6 Hazardous decomposition products**

May evolve toxic gases (carbon and styrene oxides, hydrocarbons) when heated to decomposition.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

**Acute toxicity** Due to the product form (enclosed), contact with contents is not anticipated with normal use.

**Information available for the ingredients:**

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
LIMESTONE (CALCIUM CARBONATE)	> 5000 mg/kg (rat)	--	--
STYRENE	> 2000 mg/kg (rat)	> 2000 mg/kg (rat) (OECD 402)	11.8 mg/L/4 hours (rat) (vapour)
BENZOYL PEROXIDE	5700 mg/kg (mouse)	> 1000 mg/kg (mammal)	--

**Skin** Due to product encapsulation, the potential for skin contact with contents is reduced. If the container is damaged, contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Effects may be delayed.

**Eye** Due to product encapsulation, the potential for eye contact with contents is reduced. If the container is damaged, direct contact may result in irritation, lacrimation and burns.

**Sensitisation** Exposure to contents may cause skin sensitisation. This product is not classified as a respiratory sensitiser.

**Mutagenicity** Insufficient data available to classify as a mutagen.

**Carcinogenicity** Due to the product encapsulation, exposure to contents is not anticipated with normal use. Styrene is classified as possibly carcinogenic to humans (IARC Group 2B).

**Reproductive** Due to the product encapsulation, exposure to contents is not anticipated with normal use. Styrene is classified as possibly carcinogenic to humans (IARC Group 2B).

**STOT - single exposure** Over exposure may result in irritation of the nose and throat, coughing, nausea, vomiting, dizziness and breathing difficulties. High level exposure may result in respiratory paralysis and unconsciousness.

**STOT - repeated exposure** Due to product encapsulation, the potential for exposure to the contents is reduced. May cause damage to organs (nasal epithelial and ear) through prolonged or repeated exposure to styrene if inhaled.

**Aspiration** Not classified as causing aspiration.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No information provided.

**12.2 Persistence and degradability**

No information provided.

**12.3 Bioaccumulative potential**

No information provided.

**12.4 Mobility in soil**

No information provided.

**12.5 Other adverse effects**

If released to the atmosphere, styrene will react rapidly with both hydroxyl radicals and ozone with a combined calculated half-life of about 5 hours. If released to environmental bodies of water, styrene will volatilise relatively rapidly and biodegrade, but is not expected to hydrolyse. If released to soil it will biodegrade and have low soil mobility.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste disposal** For small quantities, mix with other component/s, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required). Ensure protective equipment is worn when mixing. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

**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)
<b>14.1 UN Number</b>	None allocated.	None allocated.	None allocated.
<b>14.2 Proper Shipping Name</b>	None allocated.	None allocated.	None allocated.
<b>14.3 Transport hazard class</b>	None allocated.	None allocated.	None allocated.
<b>14.4 Packing Group</b>	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** Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

**Inventory listings** **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
All components are listed on AICS, or are exempt.

**16. OTHER INFORMATION**

**Additional information** **ORGANIC PEROXIDES:** Fires involving organic peroxides can be intense and move rapidly due to product rapid decomposition with release of oxygen and may involve explosions. If spilt on combustible materials it may spontaneously ignite. A diluent is often added to organic peroxides to reduce shock sensitivity.

**IARC GROUP 2B - POSSIBLE HUMAN CARCINOGEN.** This product contains an ingredient which has demonstrated sufficient evidence to have been classified by the International Agency for Research into Cancer (IARC) as possibly carcinogenic to humans and whose use should be strictly monitored and controlled.

**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.

**PRODUCT NAME J-LOK RESIN CAPSULES****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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