

# SAFETY DATA SHEET

**CLEARSTONE**

Infosafe No.: LPZYE  
Issued Date: 15/06/2016  
Issued by: INNOVATIVE COMPOSITES PTY  
LTD

## 1. IDENTIFICATION

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### GHS Product Identifier

CLEARSTONE

### Product Code

STC071, SIC072, STC073, SEC074

### Company Name

INNOVATIVE COMPOSITES PTY LTD (ABN 42 120 389 433)

### Address

Factory 2/22 Hightech Place Lilydale  
Victoria 3140 Australia

### Telephone/Fax Number

Tel: (03) 9738 7095  
Fax: (03) 9738 7096

### Emergency phone number

(03) 9738 7095

### Recommended use of the chemical and restrictions on use

Stone coating.

## 2. HAZARD IDENTIFICATION

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### GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Acute Toxicity - Inhalation: Category 4

Carcinogenicity: Category 2

Eye Damage/Irritation: Category 2A

Flammable Liquids: Category 3

Skin Corrosion/Irritation: Category 2

STOT Repeated Exposure: Category 1

STOT Single Exposure: Category 3 (respiratory tract irritation)

Toxic to Reproduction: Category 2

### Signal Word (s)

DANGER

### Hazard Statement (s)

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child .  
H372 Causes damage to organs (hearing) through prolonged or repeated exposure .

**Pictogram (s)**

Flame, Exclamation mark, Health hazard



**Precautionary statement – Prevention**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting//equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash contaminated skin thoroughly after handling  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.

**Precautionary statement – Response**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P362 Take off contaminated clothing and wash before reuse.  
P370+P378 In case of fire: Use dry agent or foam for extinction.

**Precautionary statement – Storage**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Precautionary statement – Disposal**

P501 Dispose of contents/container to an approved waste disposal plant.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients**

| Name                                       | CAS         | Proportion |
|--|-------------|------------|
| Polyester resin                            | Proprietary | 30-65 %    |
| Styrene                                    | 100-42-5    | 30-60 %    |
| Quinone and/or phenolic inhibitors         | Proprietary | 0-0.5 %    |
| Ingredients determined not to be hazardous |             | Balance    |

## 4. FIRST-AID MEASURES

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### **Inhalation**

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

### **Ingestion**

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

### **Skin**

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

### **Eye contact**

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

### **First Aid Facilities**

Eyewash, safety shower and normal washroom facilities.

### **Advice to Doctor**

Treat symptomatically.

### **Other Information**

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

## 5. FIRE-FIGHTING MEASURES

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### **Suitable Extinguishing Media**

Use dry agent or foam.

### **Unsuitable Extinguishing Media**

Do not use water jet.

### **Hazards from Combustion Products**

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

### **Specific Hazards Arising From The Chemical**

Flammable liquid and vapour. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard. Polymerisation may occur at elevated temperatures, such as a fire. If polymerisation occurs in a closed container, violent rupture may result.

### **Hazchem Code**

•3Y

### **Decomposition Temperature**

Not available

### **Precautions in connection with Fire**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

## 6. ACCIDENTAL RELEASE MEASURES

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### **Emergency Procedures**

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. 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.

## 7. HANDLING AND STORAGE

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### Precautions for Safe Handling

Avoid contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. Use in designated areas with local exhaust ventilation, away from sparks, flames and other ignition sources. Use approved flammable liquid storage containers in the work area. Prevent release of vapours and mists into workplace air. Keep containers tightly closed. Take precautionary measures against static discharges. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Avoid exposure. Do not handle until all safety precautions have been read and understood.

It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

### Conditions for safe storage, including any incompatibilities

Store in the shade, in a well-ventilated area preferably below 38°C and well away from sources of ignition. This product should be stored away from foodstuffs, strong oxidising agents and other incompatible materials. Handle and store in accordance with applicable local and national regulations for flammable liquids. The product has a limited storage life due to inhibitor depletion and should be used within six months of delivery. Rapid polymerisation resulting in violent rupture of closed containers and possible fire from flammable vapours may be initiated by high temperatures or certain contaminants. Oxidising agents (e.g. organic peroxides), strong acids (e.g. sulphuric acid), ferrous salts present in rust, and some metal halides promote polymerisation. Alkalis reduce the inhibitor concentration and increase the risk of spontaneous polymerisation. Contamination of the product with these substances should be avoided. Exposure to UV radiation (including from light fittings), can initiate slow polymerisation that may continue in a sealed container. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Styrene:

TWA: 50 ppm, 213 mg/m<sup>3</sup>

STEL: 100 ppm, 426 mg/m<sup>3</sup>

### NOTE

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour work

### Biological Limit Values

Name: Styrene

Determinant: Mandelic acid plus phenylglyoxylic acid in urine, (Styrene in venous blood)

Value: End of shift, (End of shift)

Sampling time: 400 mg/g creatinine, (0.2 mg/L)

Notation: Ns, (Sq)

Source: American Conference of Industrial Hygienists (ACGIH)

### Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1:2009 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

### Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

#### Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. 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.

#### Hand Protection

Wear gloves of impervious material such as laminated film. 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.

#### Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| Properties                | Description   | Properties                             | Description                  |
|---------------------------|---|--|------------------------------|
| Form                      | Liquid  | Appearance                             | Clear to hazy tinted liquid  |
| Colour                    | Clear to hazy tinted  | Odour                                  | Characteristic styrene odour |
| Decomposition Temperature | Not available   | Melting Point                          | Not available                |
| Boiling Point             | 145°C (for Styrene)   | Solubility in Water                    | Insoluble                    |
| Specific Gravity          | 0.95 to 1.15 (water=1)<br>Dependent on non-volatile content | pH                                     | Not applicable               |
| Vapour Pressure           | 0.6 kPa at 20°C (for Styrene)                               | Vapour Density (Air=1)                 | 3.6 (for Styrene)(air=1)     |
| Evaporation Rate          | 0.49 (for Styrene) (n-butyl acetate=1)                      | Odour Threshold                        | Not available                |
| Viscosity                 | Not available   | Partition Coefficient: n-octanol/water | Not available                |
| Flash Point               | 31°C (Tag closed cup)                                       | Flammability                           | Flammable liquid             |
| Auto-Ignition Temperature | Not available   | Flammable Limits - Lower               | 1.1%                         |
| Flammable Limits - Upper  | 6.1%  |  |                              |

## 10. STABILITY AND REACTIVITY

#### Chemical Stability

Stable under normal conditions of storage and handling.

#### Reactivity and Stability

Reacts with incompatible materials.

#### Conditions to Avoid

Heat and other sources of ignition and prolonged storage above 38°C.

#### Incompatible materials

Alkylation catalysts and strong acids (H<sub>2</sub>S<sub>04</sub>, H<sub>3</sub>P<sub>04</sub>, BF<sub>3</sub>, A<sub>1</sub>C<sub>13</sub>), halogens and hydrogen halides. Contact with copper and copper alloys. Oxidising agents.

#### Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes and gases including carbon monoxide, carbon dioxide and oxides of nitrogen.

**Possibility of hazardous reactions**

Reacts with incompatible materials.

**Hazardous Polymerization**

May occur in the presence of polymerisation accelerators.

## 11. TOXICOLOGICAL INFORMATION

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**Toxicology Information**

Toxicity data for material given below.

**Acute Toxicity - Inhalation**

Styrene:

LC50 (inhalation, rat) = 2770 ppm/4h (11.8 mg/L/4H)

**Acute Toxicity - Dermal**

Styrene:

LD50 (rabbit) > 5,010 mg/kg

**Ingestion**

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

**Inhalation**

Harmful if inhaled. May cause respiratory irritation. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system.

**Skin**

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Skin irritation (Rabbit) (Standard Draize); mild to moderate

**Eye**

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Eye irritation (Rabbit) (Standard Draize); moderate to severe

**Respiratory sensitisation**

Not expected to be a respiratory sensitiser.

**Skin Sensitisation**

Not expected to be a skin sensitiser.

**Germ cell mutagenicity**

Not considered to be a mutagenic hazard.

**Carcinogenicity**

Suspected of causing cancer. Classified as a suspected human carcinogen.

Styrene is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

**Reproductive Toxicity**

Suspected of damaging fertility or the unborn child. Classified as a suspected human reproductive or developmental toxicant.

**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

Causes damage to organs (hearing) through prolonged or repeated exposure.

**Aspiration Hazard**

Not expected to be an aspiration hazard.

**Other Information**

Long-term exposure to styrene may cause peripheral neuropathy, CNS depression, and damage to the liver and kidneys.

## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

No ecological data available for this material.

### Persistence and degradability

Not available

### Mobility

Not available

### Bioaccumulative Potential

Not available

### Other Adverse Effects

Not available

### Environmental Protection

Do not discharge this material into waterways, drains and sewers.

## 13. DISPOSAL CONSIDERATIONS

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### Disposal considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain flammable residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature.

## 14. TRANSPORT INFORMATION

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### Transport Information

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1: Explosives
- Division 2.1: Flammable Gases.  
(Division 2.1 and Class 3 are incompatible in transport if both are in tanks or other receptacles with a capacity individually exceeding 500 L)
- Division 2.3: Toxic Gases
- Division 4.2: Spontaneously Combustible Substances
- Division 5.1: Oxidising substances
- Division 5.2: Organic Peroxides
- Class 6: Toxic or Infectious Substances  
(where the flammable liquid is nitromethane)
- Class 7: Radioactive materials unless specifically exempted

### Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 3

UN No: 1866

Proper Shipping Name: RESIN SOLUTION

Packing Group: III

EMS : F-E, S-E

Special Provisions: 223, 955

### Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Class/Division: 3  
UN No: 1866  
Proper Shipping Name: Resin solution  
Packing Group: III  
Packaging Instructions (cargo only): 366  
Packaging Instructions (passenger & cargo): 355  
Hazard Label: Flammable liquid  
Special Provisions: A3

**U.N. Number**

1866

**UN proper shipping name**

RESIN SOLUTION

**Transport hazard class(es)**

3

**Packing Group**

III

**Hazchem Code**

•3Y

**Special Precautions for User**

Not available

**EPG Number**

3A1

**IERG Number**

14

**IMDG Marine pollutant**

No

**Transport in Bulk**

Not available

## 15. REGULATORY INFORMATION

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**Regulatory information**

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

**Poisons Schedule**

S5

## 16. OTHER INFORMATION

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**Date of preparation or last revision of SDS**

SDS Reviewed: June 2016

SDS Supersedes: March 2011

**References**

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice  
Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH)

Globally Harmonised System of classification and labelling of chemicals.



## END OF SDS

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