

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**Material name** CIP Resin  
**Recommended use** Crack Injection Paste-Over Adhesive  
**Version No.** 01  
**CAS No.** Mixture  
**Product code** Cartridges: CIP22 - CIP Resin  
**Manufacturer**  
**Company name** Simpson-Strong Tie Australia Pty. Limited  
**Address** Unit 1/16 Kenoma Place  
Arndell Park,  
NSW 2148  
Australia  
**Website** www.strongtie.co.au  
**Telephone** +612 9831 7700  
**Fax** +612 9831 2726  
**Emergency telephone number** 13 11 26

**2. HAZARDS IDENTIFICATION**

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

**Classification** Xi;R36/38, R43, N;R51-53  
**Risk phrase(s)** R36/38 Irritating to eyes and skin.  
R43 May cause sensitisation by skin contact.  
R51 Toxic to aquatic organisms.  
R53 May cause long-term adverse effects in the aquatic environment.  
**Safety phrase(s)** S23 Do not breathe vapour.  
S24/25 Avoid contact with skin and eyes.  
S37 Wear suitable gloves.  
S57 Use appropriate container to avoid environmental contamination.  
S60 This material and its container must be disposed of as hazardous waste.  
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS No.	Percent
BisPhenolA/Epichlorohydrin (Epoxy Resin)	25068-38-6	70-95

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. FIRST-AID MEASURES**

**Inhalation** Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

**Eye contact** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops or persists.

**Ingestion** Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort continues.

**General advice** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**Notes to physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide, dry powder or water fog.
<b>Extinguishing media which must not be used for safety reasons</b>	None known.
<b>Unusual fire &amp; explosion hazards</b>	During fire, gases hazardous to health may be formed.
<b>Specific hazards</b>	Hazardous decomposition products may occur when materials polymerize at temperatures above 500°F. Do not allow run-off from fire fighting to enter drains or water courses.
<b>Special protective equipment for fire-fighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
<b>Specific methods</b>	Keep unnecessary personnel away. Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.
<b>Hazchem Code</b>	2Y
<b>Hazardous combustion Products</b>	Carbon dioxide. Carbon monoxide. Aldehydes. Organic compounds. Acids.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Wear appropriate personal protective equipment (See Section 8). Stop leak if possible without any risk. Immediately evacuate personnel to safe areas. Provide adequate ventilation.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not allow to enter drains, sewers or watercourses. Contact local authorities in case of spillage to drain/aquatic environment.
<b>Containment procedures</b>	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Remove sources of ignition. For waste disposal, see section 13 of the SDS. <b>Small Spills:</b> Absorb spillage with non-combustible, absorbent material. Place in leak-proof containers. Seal tightly for proper disposal. <b>Large Spills:</b> Approach suspected leak areas with caution. Evacuate and ventilate the area. Create a dike or trench to contain material. Use self contained breathing apparatus and chemical protective clothing. Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Mechanical ventilation or local exhaust ventilation is recommended. Persons susceptible for allergic reactions should not handle this product. Avoid any exposure. Wear suitable protective clothing, gloves and eye/face protection. When using, do not eat, drink or smoke. Use care in handling/storage. Observe good industrial hygiene practices.
<b>Storage</b>	Keep away from heat, sparks and open flame. Keep container tightly closed. Store in a cool, dry, ventilated area. Protect against physical damage. Separate from acids and oxidizing materials. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Recommended monitoring procedures</b>	
<b>Additional exposure data</b>	No exposure standards allocated.
<b>Engineering measures</b>	Mechanical ventilation or local exhaust ventilation is recommended. Eye wash facilities and emergency shower must be available when handling this product.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	No protection is ordinarily required with adequate ventilation.
<b>Hand protection</b>	Skin contact should be minimized through use of nitrile, neoprene or butyl gloves and suitable

long sleeved clothing. Consideration must be given both to durability as well as permeation resistance.

<b>Eye protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear appropriate chemical resistant clothing.
<b>Hygiene measures</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately. Personal protective equipment should not be worn during lunch breaks.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	White paste.
<b>Physical state</b>	Liquid.
<b>Form</b>	Paste.
<b>Colour</b>	White
<b>Odour</b>	None specific.
<b>Odour threshold</b>	Not available.
<b>pH</b>	5.7
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Solubility (water)</b>	Insoluble in water.
<b>Flash point</b>	121.1°C (250°F) Closed cup
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available
<b>Auto-ignition temperature</b>	Not available.
<b>Other data</b>	
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Relative density</b>	1.2 (72°F/22°C).

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Incompatible materials, heat, and open flame.
<b>Materials to avoid</b>	Oxidizing agents, acids, organic bases, and amines.
<b>Hazardous decomposition products</b>	During combustion: Carbon dioxide. Carbon monoxide. Aldehydes. Organic substances.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	Irritating to eyes and skin.
<b>Routes of exposure</b>	Skin contact. Eye contact. Inhalation.
<b>Sensitization</b>	May cause sensitization by skin contact.
<b>Carcinogenicity</b>	There is no evidence of carcinogenic effects for this product.
<b>Mutagenicity</b>	Resins of this type, liquid resins based on BisPhenolA/Epichlorohydrin (Epoxy Resin), have proved to be inactive when tested by in vivo mutagenicity assays.
<b>Reproductivity</b>	No data available.

**Symptoms and target organs** Symptoms includes itching, burning, redness and tearing. Sensitization.  
**Further information** This material is a viscous liquid to semi-solid that do not easily form vapors. If this material is heated or misted, coughing and mild, temporary irritation may occur.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicological data**

Components	Species	Test results
BisPhenolA/Epichlorohydrin (Epoxy Resin) (CAS 25068-38-6)		
Fish	LC50	Salmo gairdneri
		1.5 mg/l, 96 hours
<b>Aquatic</b>		
Crustacea	EC50	Daphnia magna
		2.7 mg/l, 48 hours
<b>Ecotoxicity</b>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Information given is based on data on the components and the ecotoxicology of similar products.	
<b>Persistence and degradability</b>	The product is not expected to be readily biodegradable.	
<b>Mobility</b>	The product is insoluble in water. The product is non-volatile..	
<b>Bioaccumulation</b>	No data available.	
<b>Other adverse effects</b>	No data available.	

**13. DISPOSAL CONSIDERATIONS**

**Disposal instructions** Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

**Waste from residues / unused products** Dispose of waste and residues in accordance with local authority requirements.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION**

**ADG**

**Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Bisphenol-A Epichlorohydrin resin)

**Hazard class** 9

**UN number** UN3082

**Packing group** III

**Marine pollutant** Yes

**Labels required** 9

**Hazard ID** D3Z

**IATA**

**UN number** UN3082

**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorohydrin resin)

**Hazard class** 9

**Packing group** III

**Environmental hazards**

**Marine pollutant** Yes

**Labels required** 9

**ERG code** 9L

**Special precautions** Read safety instructions, (M)SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	UN3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorohydrin resin)
<b>Hazard class</b>	9
<b>Packing group</b>	III
<b>EmS</b>	F-A, S-F
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Labels required</b>	9
<b>Special precautions</b>	Read safety instructions, (M)SDS and emergency procedures before handling.
<b>Hazchem Code</b>	2Y

**15. REGULATORY INFORMATION**

**National regulations** This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.)

**Inventory status**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. OTHER INFORMATION**

<b>Bibliography</b>	In-house data
<b>Disclaimer</b>	The information in this (M)SDS was obtained from sources which we believe are reliable but cannot guarantee. Additionally, your use of this information is beyond our control and may be beyond our knowledge. Therefore, the information is provided without any representation or warranty express or implied.
<b>Issue date</b>	10-September-2013
<b>Revision date</b>	-

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**Material name** CIP - Hardener  
**Recommended use** Crack Injection Paste-Over Adhesive  
**Version No.** 01  
**CAS No.** Mixture  
**Product code** Cartridges: CIP22 - CIP Hardener  
**Manufacturer**  
**Company name** Simpson-Strong Tie Australia Pty. Limited  
**Address** Unit 1/16 Kenoma Place  
 Arndell Park  
 NSW 2148  
 Australia  
**Website** www.strongtie.co.au  
**Telephone** +612 9831 7700  
**Fax** +612 9831 2726  
**Emergency telephone number** 13 11 26

**2. HAZARDS IDENTIFICATION**

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

**Classification** Xn;R22, Xi;R36/38  
**Risk phrase(s)** R22 Harmful if swallowed.  
 R36/38 Irritating to eyes and skin.  
**Safety phrase(s)** S23 Do not breathe vapour.  
 S24/25 Avoid contact with skin and eyes.  
 S60 This material and its container must be disposed of as hazardous waste.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS No.	Percent
Mercaptan(s)	N/A	20-40
2,4,6-Tris-(dimethylaminomethyl)- phenol	90-72-2	10-30
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	3033-62-3	1-5
Quart	14808-60-7	1-5
Carbon black	1333-86-4	0.1 - < 1.0

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. FIRST-AID MEASURES**

**Inhalation** Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.  
**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.  
**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if irritation persists after washing.  
**Ingestion** Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Only induce vomiting at the instruction of medical personnel. Get medical attention immediately.  
**General advice** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.  
**Notes to physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media** Extinguish with foam, carbon dioxide, dry powder or water fog.

**Extinguishing media which must not be used for safety reasons** None known.

**Unusual fire & explosion hazards** During fire, gases hazardous to health may be formed.

**Special protective equipment for fire-fighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

**Specific methods** Keep unnecessary personnel away. Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

**Hazchem Code** 2Z

**Hazardous combustion products** Carbon dioxide. Carbon monoxide. Nitrogen Oxides Ammonia.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions** Wear appropriate personal protective equipment (See Section 8). Stop leak if possible without any risk. Immediately evacuate personnel to safe areas. Provide adequate ventilation.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not allow to enter drains, sewers or watercourses. Contact local authorities in case of spillage to drain/aquatic environment.

**Containment procedures** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for cleaning up** Remove sources of ignition. For waste disposal, see section 13 of the SDS.  
**Small Spills:** Absorb spillage with non-combustible, absorbent material. Place in leak-proof containers. Seal tightly for proper disposal.  
**Large Spills:** Approach suspected leak areas with caution. Evacuate and ventilate the area. Create a dike or trench to contain material. Use self contained breathing apparatus and chemical protective clothing. Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal.

**7. HANDLING AND STORAGE**

**Handling** Local exhaust is recommended. Avoid any exposure. Wear suitable protective clothing, gloves and eye/face protection. When using, do not eat, drink or smoke. Use care in handling/storage. Observe good industrial hygiene practices.

**Storage** Keep away from heat, sparks and open flame. Keep container tightly closed. Store in a cool, dry, ventilated area. Protect against physical damage. Separate from acids and oxidizing materials. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m <sup>3</sup>	Inhalable fraction
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	STEL	0.15 ppm	
(CAS 3033-62-3)	TWA	0.05 ppm	
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction

**Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)**

Components	Type	Value
Carbon black (CAS 1333-86-4)	TWA	3 mg/m <sup>3</sup>
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m <sup>3</sup>

**Recommended monitoring procedures****Additional exposure data** No exposure standards allocated.**US ACGIH Threshold Limit Values: Skin designation**

N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine) (CAS 3033-62-3) Can be absorbed through the skin.

**Engineering measures** Mechanical ventilation or local exhaust ventilation is recommended. Eye wash facilities and emergency shower must be available when handling this product.**Personal protective equipment****Respiratory protection** No protection is ordinarily required with adequate ventilation.**Hand protection** Skin contact should be minimized through use of nitrile, neoprene or butyl gloves and suitable long sleeved clothing. Consideration must be given both to durability as well as permeation resistance.**Eye protection** Wear safety glasses with side shields (or goggles).**Skin and body protection** Wear appropriate chemical resistant clothing.**Hygiene measures** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately. Personal protective equipment should not be worn during lunch breaks.**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Black paste.
<b>Physical state</b>	Liquid.
<b>Form</b>	Paste.
<b>Colour</b>	Black.
<b>Odour</b>	Strong skunk-like.
<b>Odour threshold</b>	Not available.
<b>pH</b>	10.6
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Solubility (water)</b>	Slightly soluble in water.
<b>Flash point</b>	94.4°C (202°F) Closed cup
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Other data</b>	
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Relative density</b>	1.38 (72°F/22°C)

**10. STABILITY AND REACTIVITY**

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Incompatible materials, heat, and open flame.
<b>Materials to avoid</b>	Oxidizing agents. Acids
<b>Hazardous decomposition products</b>	During combustion: Carbon dioxide. Nitrogen oxides. Ammonia.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION****Toxicological data**



Components	Species	Test Results
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine) (CAS 3033-62-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	235 mg/kg
<i>Oral</i>		
LD50	Rat	1045 mg/kg
<b>Acute toxicity</b>	Irritating to eyes and skin. Harmful if swallowed.	
<b>Routes of exposure</b>	Skin contact. Eyes contact. Inhalation..	
<b>Toxicological information</b>	Occupational exposure to the substance or mixture may cause adverse effects.	
<b>Sensitization</b>	Not a skin sensitizer.	
<b>Carcinogenicity</b>	Inhalation of carbon black and quartz dust may cause cancer, however due to the physical form of the product, inhalation of dust is not likely.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Carbon black (CAS 1333-86-4)		2B Possibly carcinogenic to humans.
Quartz (CAS 14808-60-7)		1 Carcinogenic to humans
<b>Mutagenicity</b>	No data available.	
<b>Reproductivity</b>	No data available.	
<b>Symptoms and target organs</b>	Symptoms include itching, burning, redness and tearing.	
<b>Further information</b>	High concentrations: May cause respiratory irritation. Toxicological, ecotoxicological, physical and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information.	

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b>	Information given is based on data on the components and the ecotoxicology of similar products. The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data available.
<b>Mobility</b>	The product is slightly soluble in water.
<b>Bioaccumulation</b>	No data available.
<b>Other adverse effects</b>	No data available.

**13. DISPOSAL CONSIDERATIONS**

<b>Disposal instructions</b>	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.
<b>Waste from residues / unused products</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION**

<b>ADG</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Hazchem Code</b>	2 Z

**15. REGULATORY INFORMATION**

**National regulations** This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.)

**Australia HVIC: Listed substance**

Carbon black (CAS 1333-86-4)	Listed.
Quartz (CAS 14808-60-7)	Listed.

**Inventory status**

<u>Country(s) or region</u>	<u>Inventory name</u>	<u>On inventory (yes/no)*</u>
Australia	Australian Inventory of Chemical Substances (AICS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. OTHER INFORMATION****Bibliography**

In-house data

**Disclaimer**

The information in this (M)SDS was obtained from sources which we believe are reliable but cannot guarantee. Additionally, your use of this information is beyond our control and may be beyond our knowledge. Therefore, the information is provided without any representation or warranty express or implied.

**Issue date**

27-August-2013

**Revision date**

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