

**SECTION 1 – IDENTIFICATION OF MATERIAL AND SUPPLIER**

<b>SUPPLIER:</b>	<b>SOLID SOLUTIONS.</b>
<b>ABN:</b>	46 977 073 014.
<b>ADDRESS:</b>	19 Ardena Court, East Bentleigh, VIC 3165.
<b>TELEPHONE:</b>	(03) 9579 2044.
<b>AH EMERGENCY TELEPHONE:</b>	13 1126 (Poisons Information Centre).
<b>FAX:</b>	(03) 9579 0573.
<b>WEB PAGE:</b>	www.solidsolutions.com.au
<b>Product Name:</b>	Solid Cast 651 Part A.
<b>Product Use:</b>	Ambient temperature epoxy resin based formulation for mixing with Solid Cast 651 Part B. Solid Cast 651 Kit is used in areas such as potting of electrical components.
<b>Manufacturer's Product Code:</b>	Not applicable.
<b>Creation Date:</b>	01/15/2012.
<b>Revision Date:</b>	

**SECTION 2 – HAZARDS IDENTIFICATION**

This product is classified as a **HAZARDOUS SUBSTANCE** according to criteria of the ASCC, and as **NON-DANGEROUS GOODS** according to the ADG Code, but as **DANGEROUS GOODS** for Marine and Air transport.

<b>Hazard Category:</b>	Xi: Irritant; N: Dangerous for the environment
<b>Emergency Overview:</b>	Irritating to eyes and skin. May cause sensitisation by skin contact.
<b>Inhalation:</b>	At room temperature, exposure to vapour is minimal due to low volatility.
<b>Ingestion:</b>	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
<b>Skin Contact:</b>	Prolonged exposure is not likely to cause significant skin irritation. Repeated contact may cause skin irritation with local redness. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Skin contact has caused allergic skin reaction in humans.
<b>Eye Contact:</b>	May cause slight temporary eye irritation. Corneal injury is unlikely.
<b>Primary Routes of Exposure:</b>	Skin.
<b>Risk Statements:</b>	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.
<b>Safety Statements:</b>	S2 Keep out of the reach of children. S24 Avoid contact with skin. S28 After contact with skin, wash immediately with plenty of soap-suds. S37/39 Wear suitable gloves and eye/face protection S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.

**SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Ingredients:</b>	<b>CAS Number:</b>	<b>Proportion:</b>
<b>Polymer of bisphenol A and epichlorhydrin</b>	<b>25068-38-6</b>	<b>&gt; 50% w/w</b>
<b>Polymer of bisphenol F and epichlorhydrin</b>	<b>28064-14-4</b>	<b>10 - 25% w/w</b>
<b>Alkyl (C12-14) glycidyl ether</b>	<b>68609-97-2</b>	<b>10 - 25% w/w</b>
<b>Total</b>		<b>100% w/w</b>

**SECTION 4 – FIRST AID MEASURES**

<b>Scheduled Poisons:</b>	Poisons Information Centre in each Australian State capital city can provide additional assistance for scheduled poisons. (Phone Australia 13 1126) or a doctor (at once).
<b>First Aid Facilities Required:</b>	Eye wash fountains, safety shower and a general washing facility should be easily accessible in the immediate work area.
<b>Inhalation:</b>	Remove victim from exposure to fresh air – avoid becoming a casualty. If not breathing, apply mouth-to-mouth resuscitation. If breathing is difficult, qualified personnel should administer oxygen. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Call a doctor and/or transport to an emergency hospital.
<b>Ingestion (Swallowed):</b>	Immediately rinse mouth with water. If swallowed DO NOT induce vomiting. Give a glass of water to drink. Never give anything by mouth to an unconscious patient. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration into the lungs. Get to a doctor or hospital quickly.
<b>Skin contact:</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water for at least 15 minutes. Immediately remove contaminated clothing and wash before reuse. Remove residues with soap and water. If symptoms occur or irritation persists seek medical attention.
<b>Eye contact:</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If irritation develops seek medical attention.
<b>Advice to Doctor:</b>	No specific antidote is known. Supportive care. Treatment based on judgement by the doctor in response to reactions of the patient. Poisons Information Centre in each Australian State capital city can provide additional assistance for scheduled poisons.

**SECTION 5 – FIRE FIGHTING MEASURES**

<b>Hazards from Combustion Products:</b>	Upon combustion, this product may emit carbon monoxide, carbon dioxide, phenolics, and other possibly toxic gases and vapours on burning.
<b>Hazardous Decomposition Products:</b>	Upon decomposition, this product may emit carbon monoxide, carbon dioxide, phenolics, and other possibly toxic gases and vapours on burning.
<b>Suitable Extinguishing Media:</b>	Carbon dioxide, dry chemical foam, dry powder. For large-scale fires, alcohol resistant foams are preferred if available. General-purpose synthetic foams or protein foams may function, but much less effectively. Water may be used as a blanket for fire extinguishment. If water is used, it should be used in very large quantities. If possible, contain fire run off water.
<b>Precautions for Fire Fighting:</b>	In case of fire use large quantities of water, foam, carbon dioxide or a dry chemical. Immediately evacuate the area (including down-wind) of unnecessary personnel. People who are fighting fires must be protected against hazardous combustion products by wearing positive pressure self-contained breathing apparatus and full protective clothing. Do not reseal contaminated containers. If safe to do so, remove container(s) from the path of the fire if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.



<b>Hazchem Code:</b>	3X (for Marine & Air transport).
<b>Flash Point:</b>	177°C.
<b>Solubility in Water:</b>	< 0.1 @ 25°C.
<b>Fire Hazards:</b>	Hazardous combustion products: Upon decomposition, this product may emit carbon monoxide, carbon dioxide, phenolics, and other possibly toxic gases and vapours on burning.
<b>Flammability:</b>	Non-flammable liquid. Combustible Liquid C2. Product may burn in a fire situation generating toxic vapours or fumes.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

<b>Spills:</b>	
<b>Personal Precautions:</b>	Evacuate and ventilate spill area. In case of spill, wear full protective equipment including respiratory equipment during clean up as indicated in section 8 below. Isolate hazard area and deny entry.
<b>Environmental Precautions:</b>	Contain spill, e.g. by diking, to prevent entry into sewers, drainage system, surface or ground water systems. In the event of product entering waters or drainage system, or polluting soil or plants contact the Environmental Protection Authority or your local Waste Management Authority.
<b>Major Spill:</b>	If transportation spill, dial “000” for Police or Fire Brigade. Large quantities may be pumped into closed containers for disposal.
<b>Minor Spill:</b>	Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, sawdust, vermiculite or other absorbent), which then can be put into appropriately labelled open top drums.
<b>Clean Up:</b>	Residual material may be removed using steam or hot soapy water. Use of solvents in cleanup poses a distinct hazard and therefore should be avoided.

**SECTION 7 – HANDLING AND STORAGE**

<b>Handling:</b>	Avoid all personal contact, including skin and eye contact and inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. 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 separately. Launder contaminated clothing before re-use.
<b>Storage:</b>	Store indoors at 15 to 25°C in original, unopened containers. Store away from strong oxidising agents, bases, acids. Masses of more than 0.5 kg of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.



## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Exposure Limits:</b>	National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission: <b>Time-weighted Average (TWA):</b> None established for this product or its ingredients. <b>Short Term Exposure Limit (STEL):</b> None established for this product or its ingredients.
<b>Engineering Controls:</b>	Good general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.
<b>Personal Protection:</b>	<u>Respiratory protective equipment:</u> No respiratory protection should be needed. <u>Eye protection:</u> Avoid contact with eyes. Wear eye protection when mixing or using. The use of face shields, chemical goggles, or safety glasses with side shield protection is recommended. <u>Hand protection:</u> Avoid contact with skin. Wear protective gloves when mixing or using. Chemical resistant gloves (e.g. Polyethylene/Ethylene Vinyl Alcohol/ Polyethylene or PE/EVAL/PE or Dupont Barricade gloves complying with AS 2161) are recommended. <u>Clothing:</u> Suitable protective clothing complying with AS 2919 (Industrial Clothing), suitable footwear complying with AS/NZS 2210 (Occupational protective footwear - Guide to selection, care and use).

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Description/ Properties:</b>	
<b>Appearance:</b>	Pale yellow liquid
<b>Colour:</b>	Pale yellow.
<b>Odour:</b>	None.
<b>pH:</b>	Not available.
<b>Vapour Pressure:</b>	Not available.
<b>Vapour Density:</b>	Not available.
<b>Boiling Point/ Range:</b>	Decomposes prior to boiling.
<b>Freezing/ Melting Point:</b>	Not available.
<b>Solubility in Water:</b>	< 0.1 @ 25°C.
<b>Specific Gravity:</b>	1.11-1.16.
<b>Flashpoint:</b>	177°C.
<b>Flammability Limits:</b>	Not applicable.
<b>Ignition Temperature:</b>	Not available.
<b>Other Properties:</b>	
<b>Volatile Organic Compounds (VOC) Content:</b>	0 % v/v.
<b>Per Cent Volatile:</b>	0 % v/v.
<b>Solubility in Solvents:</b>	Miscible with organic solvents including esters, ketones, and aromatic hydrocarbons.
<b>Stability:</b>	Stable under normal conditions.

## SECTION 10 – STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable at normal temperatures and pressure.
<b>Conditions to Avoid:</b>	Potentially violent decomposition can occur above 350°C. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.
<b>Materials to Avoid:</b>	Strong oxidising agents, bases, acids. Masses of more than 0.5 kg of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up. Avoid unintended contact with amines.
<b>Hazardous Decomposition:</b>	Upon decomposition, this product may emit carbon monoxide, carbon dioxide, phenolics, and other possibly toxic gases and vapours on burning.
<b>Hazardous Polymerisation:</b>	Will not occur by itself, but masses of more than 0.5 kg of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Health Effects:</b>	
<b>Acute:</b>	
<b>Inhaled:</b>	At room temperature, exposure to vapour is minimal due to low volatility.
<b>Ingestion (Swallowed):</b>	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
<b>Skin:</b>	Prolonged exposure not likely to cause significant skin irritation. Repeated contact may cause skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts.
<b>Eye:</b>	May cause slight transient (temporary) eye irritation. Corneal injury is unlikely.
<b>Carcinogenicity:</b>	Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEbPA). Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEbPA is carcinogenic. The most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEbPA is not classified as a carcinogen.
<b>Reproductive and Developmental Toxicity:</b>	Animal mutagenicity studies of diglycidyl ether of bisphenol A (DGEbPA) based resins have been negative, while in-vitro studies have shown mixed results. Alkyl (C12-14) glycidyl ether: Animal genetic toxicity studies were negative. In-vitro mutagenicity tests were negative in some cases and positive in others. Diglycidyl ether of bisphenol A (DGEbPA) did not cause birth defects or other adverse effects on the foetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rabbits were exposed orally. No relevant reproductive toxicity information found.
<b>Acute Toxicity Data (Oral):</b>	Low toxicity, (Oral) LD <sub>50</sub> (rat) > 5000 mg/kg.
<b>Acute Toxicity Data (Dermal):</b>	(Dermal) LD <sub>50</sub> (rabbit) > 2,000 mg/kg.
<b>Acute Toxicity Data (Inhalation):</b>	No data for product.
<b>Chronic Toxicity Data:</b>	Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.



### SECTION 12 – ECOLOGICAL INFORMATION

<b>Environmental Protection:</b>	DO NOT DISCHARGE INTO DRAINS, WATERWAYS, SEWER, OR ENVIRONMENT. Product insoluble in water. Keep from entering waste-water, soil or surface waters. Inform local authorities if this occurs. Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.
<b>Movement &amp; Partitioning:</b>	Resin: Partitioning from water to n-octanol is not applicable.
<b>Degradation &amp; Persistence:</b>	Resin: Based on the most stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however these results do not necessarily mean that the material is not biodegradable under environmental conditions.

### SECTION 13 – DISPOSAL CONSIDERATIONS

	Any disposal of product, drain and rinse liquid, or containers, must be in accordance with all State, Territory and/or Local government regulations. Liquids are usually incinerated in an approved facility. Waste characterisation and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. None of these waste management options should be considered “arranging for disposal”.
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### SECTION 14 – TRANSPORT INFORMATION

<b>Road &amp; Rail Transport:</b>	This material is not a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
<b>UN Number:</b>	Not applicable.
<b>UN Proper Shipping Name:</b>	Not applicable.
<b>ADG Class:</b>	Not applicable.
<b>Packing Group:</b>	Not applicable.
<b>HAZCHEM Code:</b>	Not applicable.
<b>Flammability:</b>	Non-flammable liquid. Combustible Liquid C2. Product may burn in a fire situation generating toxic vapours or fumes.
<b>Marine &amp; Air Transport:</b>	This material is a Marine Pollutant and Dangerous Good for Marine and Air Transport.
<b>UN Number:</b>	3082.
<b>UN Proper Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>DG Class:</b>	9.
<b>Packing Group:</b>	III.
<b>HAZCHEM Code:</b>	3X.



**SECTION 15 – REGULATORY INFORMATION**

<b>SUSDP:</b>	Poisons Schedule Number S5 allocated.
<b>AICS:</b>	All ingredients present on AICS.
<b>Labelling Details:</b>	
<b>Hazard Category:</b>	Xi: Irritant; N: Dangerous for the environment
<b>Risk Statements:</b>	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.
<b>Safety Statements:</b>	S2 Keep out of the reach of children. S24 Avoid contact with skin. S28 After contact with skin, wash immediately with plenty of soap-suds. S37/39 Wear suitable gloves and eye/face protection S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.
<b>ADG Code:</b>	Not applicable.

**SECTION 16 – OTHER INFORMATION**

<b>Acronyms:</b>	SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons.
	ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail.
	CAS Number	Chemical Abstracts Service Registry Number.
	UN Number	United Nations Number.
	HAZCHEM	An emergency action code of numbers and letters which gives information to emergency services.
	ASCC	Australian Safety and Compensation Council.
	AICS	Australian Inventory of Chemical Substances.
<b>Issue Date:</b>		
<b>Supersedes Issue Date:</b>		
<b>Revision Information:</b>	Reformat.	
<b>Contact Point:</b>	Regulatory Affairs Manager.	
<b>Telephone:</b>	(03) 9579 2044.	
<b>Note:</b>	Safety Data Sheets are updated frequently. Please ensure that you have a current copy.	
<b>Disclaimer:</b>	This SDS summarises 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 Solid Solutions cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace. This SDS does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.	