



SECTION 1 – IDENTIFICATION OF MATERIAL AND SUPPLIER

SUPPLIER:	SOLID SOLUTIONS.
ABN:	46 977 073 014.
ADDRESS:	19 Ardena Court, East Bentleigh, VIC 3165.
TELEPHONE:	(03) 9579 2044.
AH EMERGENCY TELEPHONE:	13 1126 (Poisons Information Centre).
FAX:	(03) 9579 0573.
WEB PAGE:	www.solidsolutions.com.au
Product Name:	Solid Cast 609 Part B.
Product Use:	Ambient temperature curing agent formulation for mixing with Solid Cast 609 Part A. Solid Cast 609 Kit is used in areas such as potting and casting.
Manufacturer's Product Code:	Not applicable.
Creation Date:	01/15/2012.
Revision Date:	

SECTION 2 – HAZARDS IDENTIFICATION

This product is classified as a HAZARDOUS SUBSTANCE according to criteria of the ASCC and as DANGEROUS GOODS according to the ADG Code.	
Hazard Category:	C (Corrosive); Xn (Harmful); Xi (Irritant); Xi (Sensitiser); N (Dangerous for the Environment).
Emergency Overview:	Alkaline material may cause burns. Harmful if swallowed.
Acute Skin Contact:	Corrosive. Toxic in contact with skin. Irritating to skin. May cause severe skin damage with burns and blistering. May cause allergic reaction in certain individuals. A single prolonged exposure may result in the material being absorbed in harmful amounts.
Chronic Skin Contact:	Corrosive. Toxic in contact with skin. Irritating to skin. Possible skin sensitiser. May cause persistent irritation/dermatitis. Prolonged skin contact may result in the material being absorbed in harmful amounts.
Eye Contact:	Alkaline material may cause burns. Irritating to eyes, experienced as pain, with excessive blinking and tear production, and seen as extreme redness and swelling of the eye and chemical burns of the eye. May cause blurred vision. May cause irritation with corneal injury resulting in permanent vision impairment or even blindness.
Acute Inhalation:	Risk of inhalation is low due to low vapour pressure at ambient temperatures. Excessive exposure to vapour or mist, caused by heating or from exposure in poorly ventilated areas or confined spaces, are irritating to the upper respiratory tract, causing nasal discharge, and discomfort in eyes, nose, throat, chest. Severe cases may cause difficult breathing/lung damage.
Chronic Inhalation:	May cause lung damage.
Ingestion (Swallowed):	Harmful if swallowed. Toxic in contact with skin. May cause gastrointestinal irritation or ulceration. May cause burns of the mouth and throat with abdominal and chest pain, nausea, vomiting, diarrhoea, thirst, weakness and collapse. Aspiration may occur during swallowing or vomiting, resulting in lung damage.
Symptoms of Overexposure:	Skin irritation, burns and blistering. Irritation of the nose and throat, headache, nausea and vomiting. Eye irritation and blurred vision.
Medical Conditions Aggravated by Exposure:	Existing respiratory conditions, such as asthma and bronchitis. Existing skin conditions.
Primary Routes of Exposure:	Skin, eyes.



Risk Statements:	<p>R22 Harmful if swallowed.</p> <p>R34 Causes burns.</p> <p>R41 Risk of serious eye damage.</p> <p>R43 May cause sensitisation by skin contact.</p> <p>R50 Very toxic to aquatic organisms.</p> <p>R53 May cause long-term adverse effects in the aquatic environment.</p>
Safety Statements:	<p>S2 Keep out of the reach of children.</p> <p>S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.</p> <p>S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).</p> <p>S60 This material and its container must be disposed of as hazardous waste.</p> <p>S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.</p>

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS		
Ingredients:	CAS Number:	Proportion:
Nonylphenol	25154-52-3	> 60 %
Polyoxypropylenediamine	9046-10-0	> 30 - < 60%
N-Aminoethylpiperazine	140-31-8	< 5% w/w
Total		100 % w/w

SECTION 4 – FIRST AID MEASURES	
Scheduled Poisons:	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).
First Aid Facilities Required:	Eye wash fountains and a general washing facility should be easily accessible in the immediate work area.
Skin Contact:	If skin or hair contact occurs, immediately remove contaminated clothing and flush skin and hair with running water for at least 15 minutes. Seek medical attention immediately. Chemical burns must be treated by a doctor. Discard or wash any contaminated clothing before reuse.
Eye Contact:	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek medical attention immediately.
Ingestion (Swallowed):	If swallowed DO NOT induce vomiting. If person is conscious and can swallow, give 2 glasses of water to drink. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration into the lungs, and give fluids again. Seek medical attention immediately. Never give anything by mouth to an unconscious patient.
Inhalation:	Risk of inhalation is low due to low vapour pressure at ambient temperatures. If vapours of hot material have been inhaled, remove victim 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.



Advice to Doctor:

Swallowing of this corrosive material may result in severe ulceration, inflammation, and possible perforation of the upper elementary track, with haemorrhage and fluid loss. Aspiration of this product during induce emesis can result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. 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

Hazards from Combustion Products:

Upon combustion, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO_x), ammonia, irritating aldehydes and ketones, and other possibly toxic gases and vapours on burning.

Hazardous Decomposition Products:

Upon decomposition, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO_x), ammonia, irritating aldehydes and ketones, and other possibly toxic gases and vapours on burning.

Suitable Extinguishing Media:

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 spray, fog or foam may be used but not as a water jet. If possible, contain fire run off water.

Precautions for Fire Fighting:

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.

Hazchem Code:

2X.

Flash Point:

Ca. 104-146 °C.

Solubility in Water:

Partially Soluble.

Fire Hazards:

Hazardous combustion products: Upon decomposition, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO_x), ammonia, irritating aldehydes and ketones, and other possibly toxic gases and vapours on burning.

Flammability:

Non-flammable liquid. Combustible Liquid C1. Product may burn in a fire situation generating toxic vapours or fumes.



SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills:

Personal Precautions:

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.

Environmental Precautions:

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.

Major Spill:

If transportation spill, dial “000” for Police or Fire Brigade. Large quantities may be pumped into closed containers for disposal.

Minor Spill:

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.

SECTION 7 – HANDLING AND STORAGE

Handling:

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.

Storage:

Store indoors at 15 to 25°C in original, unopened containers. Store away from strong oxidising agents, acids. Water contamination should be avoided. Masses of more than 0.5 kg of product plus an epoxy resin will cause irreversible polymerization with considerable heat build-up.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission:

Time-weighted Average (TWA): None established for this product or its ingredients.

Short Term Exposure Limit (STEL): None established for this product or its ingredients.

Engineering Controls:

When used hot, ensure for good ventilation/ suction, use only in a well-ventilated area, ensure airflow, where this product is used, is directed away from the operators.

Personal Protection:

Respiratory protective equipment: Avoid breathing dust (or) vapour (or) spray mist, suitable breathing mask where ventilation is inadequate.

Eye protection: 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.

Hand protection: Avoid contact with skin. Wear protective gloves when mixing or using. Chemical resistant gloves (e.g. Butyl, Neoprene, Viton, Polyethylene/Ethylene Vinyl Alcohol/ Polyethylene (or PE/EVAL/PE) or Dupont Barricade gloves complying with AS 2161) are recommended.

Clothing: 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

Physical Description/

Properties:

Appearance:	Colourless to yellow, slightly hazy liquid.
Colour:	Colourless to yellow.
Odour:	Slightly ammonia-like odour.
pH:	Ca. 11-12.
Vapour Pressure:	Ca. 1 mm Hg @ 20 °C.
Vapour Density:	Heavier than air.
Boiling Point/ Range:	Ca. 222-295 °C.
Freezing/ Melting Point:	Not available.
Solubility in Water:	Partially Soluble.
Specific Gravity:	Ca. 0.95.
Flashpoint:	Ca. 104-146°C.
Flammability Limits:	Not applicable.
Ignition Temperature:	Not available.

Other Properties:

Volatile Organic Compounds (VOC) Content:	0 % v/v.
Per Cent Volatile:	0 % v/v.
Solubility in Solvents:	Soluble in many organic solvents.
Stability:	Stable under normal conditions.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and pressure.
Conditions to Avoid:	Avoid extreme heat.
Materials to Avoid:	Strong oxidising agents, acids. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material. Attacks copper and copper alloys. Masses of more than 0.5 kg of product plus an epoxy resin will cause irreversible polymerization with considerable heat build-up.
Hazardous Decomposition:	Upon decomposition, this product may emit carbon monoxide, carbon dioxide, oxides of nitrogen (NO _x), ammonia, irritating aldehydes and ketones, and other possibly toxic gases and vapours on burning.
Hazardous Polymerisation:	Will not occur by itself, but masses of more than 0.5 kg of product plus an epoxy resin will cause irreversible polymerization with considerable heat build-up.

SECTION 11 – TOXICOLOGICAL INFORMATION

Health Effects:	No data for product, following data is compiled on basis of ingredients.
Acute:	
Swallowed:	On basis of ingredients: Nonylphenol, corrosive to the digestive tract if ingested.
Eye:	On basis of ingredients: Nonylphenol, severe eye irritation (rabbit). Polyoxypropylenediamine, (Draize) believed to be > 80.00 – 110.00/110 (rabbit), extremely irritating. N-Aminoethylpiperazine, corrosive in eye irritation test (rabbit).
Skin:	On basis of ingredients: Nonylphenol, moderate to severe skin irritation (rabbit). Polyoxypropylenediamine, (Draize) believed to be > 6.50 – 8.00/8.0 (rabbit), corrosive. N-Aminoethylpiperazine, corrosive in skin irritation test (rabbit).
Inhaled:	No data available.
Carcinogenicity:	No data available.
Reproductive and Developmental Toxicity:	On basis of ingredients: Nonylphenol,, Negative in AMES test for mutagenicity. N-Aminoethylpiperazine, Negative in AMES test for mutagenicity. No evidence of genotoxic effects in vivo.
Acute Toxicity Data (Oral):	On basis of ingredients: Nonylphenol, (Oral) LD ₅₀ (rat) 1,620 mg/kg. Polyoxypropylenediamine, (Oral) LD ₅₀ (rat) 2,880 mg/kg. N-Aminoethylpiperazine, (Oral) LD ₅₀ (rat) 1,470 – 2.140 mg/kg.
Acute Toxicity Data (Dermal):	On basis of ingredients: Nonylphenol, (Dermal) LD ₅₀ (rabbit) 2,140 mg/kg. Polyoxypropylenediamine, (Dermal) LD ₅₀ (rabbit) 2,980 mg/kg. N-Aminoethylpiperazine, (Dermal) LD ₅₀ (rabbit) 880 – 1,260 mg/kg.
Acute Toxicity Data (Inhalation):	No data available.
Chronic Toxicity Data:	No data available.
Sensitisation:	On basis of ingredients: Polyoxypropylenediamine, (Buehler) Negative – skin (guinea pig). N-Aminoethylpiperazine, sensitizing.



SECTION 12 – ECOLOGICAL INFORMATION

Movement & Partitioning	No data for product, following data is compiled on basis of ingredients. On basis of ingredients: N-Aminoethylpiperazine, bioaccumulation not expected considering the low log Partition coefficient (Pow) of -1.48.
Degradation & Persistence:	On basis of ingredients: Nonylphenol, expected to be not readily biodegradable. Polyoxypropylenediamine, elimination (OECD 301A) 0-10 %, difficult to eliminate. N-Aminoethylpiperazine, not readily biodegradable, <60% BOD, 28 days, Closed Bottle Test (OECD 301D).
Aquatic Toxicity:	On basis of ingredients: Nonylphenol, harmful to aquatic organisms.
Fish Toxicity:	On basis of ingredients: Nonylphenol, harmful to fish. Polyoxypropylenediamine, Acute LC ₅₀ (96 hour) for Golden Orfe (<i>Leuciscus idus</i>) 220 – 460 mg/l. N-Aminoethylpiperazine, Acute LC ₅₀ (96 hour) for Rainbow Trout (<i>Oncorhynchus mykiss</i>) > 100 mg/l.
Algae Toxicity:	On basis of ingredients: N-Aminoethylpiperazine, Acute EC ₅₀ (72 hour) for algae > 300 mg/l.
Invertebrates Toxicity:	On basis of ingredients: N-Aminoethylpiperazine, EC ₅₀ (48 hour) for water flea (<i>Daphnia magna</i>) is 32 mg/l.
Toxicity to Microorganisms:	No data available.
General:	DO NOT DISCHARGE INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Product partially soluble in water. Keep from entering wastewater, soil or surface waters. Inform local authorities if this occurs.

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”.

SECTION 14 – TRANSPORT INFORMATION

General:	This material is a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
UN Number:	1760.
UN Proper Shipping Name:	CORROSIVE LIQUID, N.O.S. (Contains Nonyl Phenol and Polyoxypropylenediamine).
ADG Class:	8.
ADG Subsidiary Risk:	Not Applicable.
Packing Group:	III.
HAZCHEM Code:	2X.
Flammability:	Non-flammable liquid. Combustible Liquid C1. Product may burn in a fire situation generating toxic vapours or fumes.



SECTION 15 – REGULATORY INFORMATION

SUSDP:	Poisons Schedule Number S5 allocated.
AICS:	All ingredients present on AICS.
Labelling Details:	
Hazard Category:	C (Corrosive); Xn (Harmful), Xi (Irritant), Xi (Sensitiser), N (Dangerous for the Environment).
Risk Statements:	R22 Harmful if swallowed. R34 Causes burns. R41 Risk of serious eye damage. R43 May cause sensitisation by skin contact. R50 Very toxic to aquatic organisms. R53 May cause long-term adverse effects in the aquatic environment.
Safety Statements:	S2 Keep out of the reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S60 This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.
ADG Code:	Class 8.

SECTION 16 – OTHER INFORMATION

Acronyms:	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.
Issue Date:		
Supersedes Issue Date:		
Revision Information:	Reformat.	
Contact Point:	Regulatory Affairs Manager.	
Telephone:	(03) 9579 2044.	
Note:	Safety Data Sheets are updated frequently. Please ensure that you have a current copy.	
Disclaimer:	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.	