MATERIAL SAFETY DATA SHEET

1. Identification of Material and Supplier

Product Name: Helmar Silicone Sealant

Recommended Use: Helmar Silicone Sealant is as an adhesive/sealant for use on ceramics, vitreous enamel, stainless steel, fibreglass and laminated surfaces. Suitable for glass aquariums. Ideal for craft applications such as paper tole.

Supplier: Helmar Australia Pty Ltd

ABN: 28 003 425 796

Street Address: 54-56 Brisbane Road, Riverstone NSW 2765

Telephone Number: (61+2) 9627 4666

Fax: (61+2) 9627 4424

Emergency Telephone Number: (24 Hours)

In Australia contact a Poison Information Centre Ph.:13 11 26

In New Zealand Ph.: 0800 764 766

In the USA contact a Poison Control Center Ph.: 1-800-222-1222

2. Hazards Identification

HAZARDOUS SUBSTANCE, NON DANGEROUS GOODS.

May cause sensitization by skin contact.

Avoid contact with eyes. Wear suitable gloves. Use only in well-ventilated areas.

3. Composition/Information on Ingredients

Composition	CAS#	%
Methyl tri (ethylmethylketoxime) silane	22984-54-9	<10
Di (ethylmethylketoxime) methoxymethyl silane	83817-72-5	<10
Gamma-Aminopropyl triethoxysilane	919-30-2	<10
Dibutyltin dilaurate	77-58-7	<1
Ingredients determined not to be hazardous		to 100%

4. First-Aid Measures

For advice, contact a Poisons Information Centre: In Australia Ph.:13 11 26, In New Zealand Ph.: 0800 764 766, In the USA contact a Poison Control Center Ph.: 1-800-222-1222

Inhalation: Remove to fresh air. Get medical attention if ill effects persist.

Skin Contact: Remove from skin and immediately flush with water for 15 minutes. Get medical attention if irritation or ill effects develop or persist.

Eye Contact: Immediately flush with water for 15 minutes.

Ingestion: Get medical attention.

Note to Physician: Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media: On large fires use dry chemical or foam. On small fires use CO2 or dry chemical. Water can be used to cool fire exposed containers.

Unsuitable Extinguishing Media: Water. Do not allow extinguishing medium to contact container contents.

Hazards from Combustion: None

Precautions for Fire-fighters: Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Fire-Fighting Equipment: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

Hazchem Code: Not applicable

6. Accidental Release Measures

Emergency Procedures: Not applicable.

Methods and Materials for Containment and Clean Up Procedures: Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which laws and regulations are applicable.

7. Handling and Storage

Handling Advice: Use with adequate ventilation. Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control methyl ethyl ketoxime (MEKO) within exposure guidelines or use respiratory protection. Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control methyl alcohol exposures within exposure guidelines or use air-supplied or self-contained breathing apparatus. Avoid skin and eye contact. Avoid breathing vapour. Keep container closed. Do not take internally. Remove contaminated clothing immediately. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

Storage Advice: Use reasonable care and store away from oxidizing materials. Keep container closed and store away from water or moisture.

This material is NOT classified as a dangerous good nor a scheduled poison.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits:

Ingredients	**Exposure Limits**
Methyl tri (ethylmethylketoxime) silane	See ethyl methyl ketoxime comments
Di (ethylmethylketoxime) methoxymethyl silane	See methyl alcohol and ethyl methyl ketoxime comments
Gamma-Aminopropyl triethoxysilane	See ethyl alcohol comments

Dibutyltin dilaurate	Australia: TWA 0.1 mg/m3 as Sn. STEL 0.2 mg/m3 as Sn. Can be absorbed through the skin. TWA 1 mt/m3 as SN Observe organic tin compounds limits. OSHA PEL and ACGIH TLV-skin: TWA 0.1 mg/m3; ACGIH STEL 0.2 mg/m3

Biological Limit Values: No biological limit allocated

Ethyl methyl ketoxime is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within the following exposure guidelines: Vendor guide TWA: 3ppm, STEL: 10ppm. Ethyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL (final rule): TWA 1000 ppm and ACGIH TLV: STEL 1000 ppm. Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of Worksafe Australia: TSA 200 ppm, STEL, 250 ppm, skin absorption; OSHA PEL: TWA 200 ppm and ACGIH TLV-skin: TWA 200 ppm, STEL 250ppm.

Engineering Control Measures:	Local Ventilation	Recommended
	General Ventilation	Recommended

Personal Protective Equipment:

Respiratory:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. IH personnel can assist in judging the adequacy of existing engineering controls.
Suitable Respirator:	Organic Vapour Type
Hand:	Butyl Rubber. Natural Rubber. Neoprene Rubber(R). Nitrile Rubber.
Eye:	Use proper protection – safety glasses as a minimum.
Skin:	Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol / spray applications may require added precautions.

9. Physical and Chemical Properties

Appearance/ Colour/ Odour:	Paste, translucent white, some odour
pH:	Not determined
Vapour Pressure (25^0C):	Not determined
Vapour Density (air=1):	Not determined
Boiling Point (^{0}C):	Not determined
Melting Point (^{0}C):	Not determined
Solubility in Water (g/L):	Not determined
Specific Gravity (25^0C):	1.03
Flash Point (^{0}C):	Not applicable
Flammability Limits:	Not determined
Auto-ignition Temperature (^{0}C):	Not determined
Viscosity:	Not determined

10. Stability and Reactivity

Chemical Stability: Stable

Conditions to Avoid: None

Incompatible Materials: Can react with strong oxidising agents. Water, moisture or humid air can cause hazardous vapours to form.

Hazardous Decomposition Products: Hazardous polymerization will not occur.

11. Toxicological Information

Possible Routes of Exposure [ ] Inhalation [X] Skin Contact [X] Ingestion

Possible Health Effects:

Acute Effects:

Ingestion: Low ingestion hazard in normal use. Overexposure by ingestion may cause drowsiness, dizziness, confusion or loss of co-ordination.

Inhalation: Irritates respiratory passages very slightly. Vapour overexposure may cause drowsiness.

Eye Contact: Direct contact may cause mild irritation.

Skin Contact: May cause moderate irritation.

Chronic Effects:

Ingestion: Repeated ingestion or swallowing large amounts may injure internally.

Inhalation: Overexposure by inhalation may injure the following organ(s): Blood, Liver.

Skin: Repeated or prolonged exposure may irritate seriously. Repeated skin contact may cause allergic skin reaction.

Toxicological Data:

Other Health Hazard Information: Laboratory experiments on rodents have shown methylethylketoxime (MEKO) to temporarily affect the blood's ability to transport oxygen (methaemoglobinaemia). Inhalation can reduce the sense of small (olfactory cells), which is reversible upon removal from exposure. Rodents exposed to chronic MEKO inhalation throughout their lifetimes showed significant increases in liver tumour rates.

The above listed potential effects of overexposure are based on actual data, the results of studies performed upon similar compositions, component data, and/ or expert review of the products.

12. Ecological Information

Environmental Fate and Distribution: Solid material, insoluble in water. No adverse effects are predicted.

Ecotoxicity: No adverse effects on aquatic organisms are predicted.

Bioaccumulation: No bioaccumulation potential.

Fate and Effects in Waste Water Treatment Plants: No adverse effects on bacteria are predicted.

13. Disposal Considerations

Disposal Method: Dispose of in accordance with local regulations.

Special precautions for Landfill or Incineration: None known.

14. Transport Information

NOT classified as a Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG) for transport by Road and Rail, IMDG Code for transport by sea and by IATA Dangerous Code for air transport.

14.1 UN No.: Not applicable.
14.2 Proper Shipping Name: Not applicable.
14.3 Class: Not applicable.
14.4 Packing Group: Not applicable.
14.5 Hazchem Code: Not applicable.
14.6 Sea transport (IMDG) Not subject to IMDG code.
14.7 Air Transport (IATA-DGR) Not subject to IATA regulations.

15. Regulatory Information

Poisons Schedule: None allocated

Prohibition / Licensing Requirements: There are no applicable prohibition or notification / licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation of Australia.

Industrial Chemicals (Notification and Assessment) Act 1989: All ingredients listed or exempt.

HSNO Approval Code: HSR002679

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. Other Information

Contact Point: Helmar Australia Pty Ltd

Phone: (61+2) 9627 4666 **Fax:** (61+2) 9627 4424

After hours:

In Australia contact a Poison Information Centre Ph.:13 11 26

In New Zealand Ph.: 0800 764 766

In the USA contact a Poison Control Center Ph.: 1-800-222-1222

The information and recommendations set down here in this document are presented in good faith and to the best of Helmar Australia Pty Ltd's knowledge. Helmar Australia Pty Ltd cannot predict or control the conditions of use or handling of this product and each user must review this document in the context of the conditions under which they intend to handle and use this product. It is the responsibility of the user to ensure a proper assessment has been carried out. No representations or warranties, either expressed or implied, or merchantability, fitness for purpose or any other nature are made here under with respect to the product to which this information refers.