

# Material Safety Data Sheet

<b>Revision Date</b> February, 3 <sup>rd</sup> , 2005	<b>Prepared by</b> David MacKinnon	<b>Technical Information</b> 1-800-201-8822 or <a href="mailto:support@mgchemicals.com">support@mgchemicals.com</a>
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## Section 1: Product Identification

**MSDS Code: 422 - liquid**      **Name: Silicone Conformal Coating**

**Related Part Numbers: 422-55ML; 422-1L; 422-4L; 422-20L**

Use: Protective coating for pc boards.

## Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha Pel	Osha Stel
67-64-1	2-propanone	25 - 50	750ppm	1000ppm	1000ppm
1330-20-7	xlenes	15 - 40	100ppm	100ppm	150ppm
n/a	polymethylphenylsiloxanes	8 - 20	n/a	n/a	n/a
n/a	acrylic resins	8 - 20	n/a	n/a	n/a
108-65-6	1-methoxy-2- propanol acetate	2 - 8	n/e	n/e	n/e

## Section 3: Hazards Identification

**WHMIS Codes:** B2, D2A

**NFPA Ratings:** Health 2 Flammability 3 Reactivity 0

**HMIS Ratings:** Health 1 Flammability 4 Reactivity 0

**Eyes:** Causes severe eye irritation.

**Skin:** Harmful if absorbed through the skin. Irritant. Can cause redness, dryness, and loss of natural oils.

**Inhalation:** Harmful if inhaled. May cause nausea, dizziness, hallucinations, headache, and loss of coordination.

**Ingestion:** Harmful if swallowed. May cause headache, dizziness, nausea, vomiting, and abdominal pain. May cause central nervous system depression.

**Chronic:** No effects known.

## Section 4: First Aid Measure

**Eyes:** Remove contact lenses. Flush with water or saline for 20 minutes. Get medical aid.

**Skin:** Wash skin with large quantities of soap and water. Get medical aid if symptoms persist.

**Inhalation:** Immediately remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Ingestion:** Do not induce vomiting. If conscious, give 1-2 glasses of water. Get medical aid.

## Section 5: Fire Fighting Measures

<b>Autoignition Temperature:</b>	272°C	<b>Flash Point:</b>	-18°C	<b>LEL / UEL:</b>	4 / 19
<b>Extinguishing Media:</b>	Use water spray, dry chemical, carbon dioxide, or chemical foam.				
<b>General Information:</b>	Will burn if involved in a fire. Containers may explode in the heat of a fire. Flash back along vapor trail is possible.				
<b>NFPA Ratings:</b>	Health 2	Flammability 3	Reactivity 0		
<b>HMIS Ratings:</b>	Health 1	Flammability 4	Reactivity 0	WHMIS Codes B2, D2A	

## Section 6: Accidental Release Measures

<b>Spill Procedure:</b>	Remove all sources of ignition. Provide adequate ventilation. Wear appropriate personal protection. Sprinkle absorbent compound onto spill, then sweep into a plastic or metal container. Wipe up further residue with paper towel and place in container. Wash spill area with soap and water.
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## Section 7: Handling and Storage

<b>Handling:</b>	Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Do not expose container to heat or flame.
<b>Storage:</b>	Keep away from sources of ignition. Store in a cool, dry, well ventilated area, away from incompatible substances. Keep from freezing.

## Section 8: Exposure Controls

<b>Routes of entry:</b>	Eyes, ingestion, inhalation, and skin.
<b>Ventilation:</b>	Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.
<b>Personal Protection:</b>	Wear appropriate protective eyeglasses or chemical safety goggles. Wear appropriate protective clothing to prevent skin contact. Use a NIOSH approved respirator when necessary.

## Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Liquid	<b>Odor:</b>	ethereal	<b>Solubility:</b>	insoluble	<b>Evaporation Rate:</b>	moderate
<b>Boiling Point:</b>	56.5°C	<b>Specific Gravity:</b>	0.96	<b>Vapor Pressure:</b>	1 PSI @21°C	<b>Vapor Density:</b>	3.1 (Air=1)
						<b>pH:</b>	7

## Section 10: Stability and Reactivity

<b>Stability:</b>	Stable at normal temperatures and pressures.
<b>Conditions to avoid:</b>	Temperatures over 40°C, ignition sources, and incompatible substances.
<b>Incompatibilities:</b>	Strong acids, bases, oxidizing agents, sodium, barium, and aluminum.
<b>Polymerization:</b>	Will not occur.
<b>Decomposition:</b>	<b>Formaldehyde</b> (only at temperatures over 160°C), dimethylcyclsiloxanes, methylphenylcyclsiloxanes, carbon monoxide, and carbon dioxide, halogens, halogen acids, possibly carbonyl halides.

## Section 11: Toxicological Information

<b>Sensitization:</b> (effects of repeated exposure)	Prolonged or repeated skin contact may cause dermatitis.		
<b>Carcinogenicity:</b> (risk of cancer)	No		
<b>Teratogenicity:</b> (risk of malformation in an unborn fetus)	No		
<b>Reproductive Toxicity:</b> (risk of sterility)	This product contains xylene, a known embryotoxin. Pregnant women must avoid all contact with this product.		
<b>Mutagenicity:</b> (risk of heritable genetic effects)	No		
<b>Lethal Exposure Concentrations:</b>	<b>Ingestion(LD50):</b> 4300 mg/kg (rat)	<b>Inhalation (LC50):</b> 5000 ppm/4h	<b>Skin (LD50):</b> n/e

## Section 12: Ecological Information

**General Information:** Avoid runoff into storms and sewers which lead into waterways. Water runoff can cause environmental damage.

**Environmental Impact Data:** (percentage by weight)

**CFC:** 0      **HFC:**      **Cl.Solv.:** 0      **VOC:** 77      **HCFC:** 0      **ODP:** 0

## Section 13: Disposal Information

**General Information:** Dispose of in accordance with all local, provincial, state, and federal regulations. Water runoff can cause environmental damage.

## Section 14: Transportation Information

**Ground:** (all sizes 4 liter or less)

Consumer Commodity/ORM-D.

**Ground:** (all sizes larger than 4 liter)

Shipping name: Paint related material, UN#1263, Packing group 2, Flash Point -18°C. Shipper must be trained and certified. Refer to CFR 49 regulations, TDG regulation (Canada).

**Air:**

All sizes must be shipped through a dangerous goods consultant. Shipper must be trained and certified. Refer to IATA regulations.

**Sea:**

Shipper must be trained and certified. Refer to IMDG regulations. Liquids 4 liters or less--limited quantity, UN#1263, Paint, Class 3, Packing Group 2, Flash Point -18, Liquids over 4 liters—shipping name paint, UN#1263, Class 3, packing group 2, Flash Point -18. Storage category "A", segregation as for class 9 but away from sources of heat and separated from goods of class 1 except for those in division 1.4.

## Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

**SARA** (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

None of the chemicals in this product have a reportable quantity.

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain any chemicals subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372

## Section 15: Regulatory Information Cont.



**TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

**CAA** (Clean Air Act, USA)

This product does not contain any class 1 ozone depletors.

This product does not contain any class 2 ozone depletors.

This product does not contain any chemicals listed as hazardous air pollutants.

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

This product does not contain any chemicals listed.

**Health Canada**

Labeling and containers used in this product are listed in compliance with Consumer Chemicals and Container regulations.

**Environment Canada**

Chemicals in this product are listed on the Domestic Substances List in the Canadian Environmental Protection Act

This product does not contain any ozone depleting substances.

**Industry and Science Canada**

Labeling, product identity, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance with the Consumer Packaging and Labeling Act and Regulations. This product is not slack filled in accordance to chapter 4 prohibitions.

**RoHS** (The restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2004).

This product is RoHS compliant.

## Section 16: Other Information

**Definitions:** n/a = not applicable, n/e = not established

**Disclaimer:** This material safety data sheet is provided as an information resource only. M.G. Chemicals believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.