

**DOW CORNING CORPORATION  
Material Safety Data Sheet****MOLYKOTE(R) 7400 ANTI-FRICTION COATING****1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY**

Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

**24 Hour Emergency Telephone: (989) 496-5900**  
Customer Service: (989) 496-6000  
Product Disposal Information: (989) 496-6315  
CHEMTREC: (800) 424-9300

MSDS No.: 01596934

Revision Date: 2004/03/22

Generic Description: Acrylic resin  
Physical Form: Liquid  
Color: Gray  
Odor: Slight odor

To reorder call:  
Polysi Technologies  
(T) 1-866-4-POLYSI  
(4-765974)  
(F) 1-919-775-2460

NFPA Profile: Health 2 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

**2. OSHA HAZARDOUS COMPONENTS**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
1317-33-5	10.0 - 30.0	Molybdenum disulfide
None	5.0 - 10.0	Thermoplastic acrylate resin based on methylmethacrylate and butylacr
7782-42-5	5.0 - 10.0	Graphite
10102-40-6	1.0 - 5.0	Sodium molybdate dihydrate
107-21-1	1.0 - 5.0	Ethylene glycol

The above components are hazardous as defined in 29 CFR 1910.1200.

**3. EFFECTS OF OVEREXPOSURE**Acute Effects

Eye: Direct contact may cause moderate irritation.  
Skin: May cause moderate irritation. Harmful if absorbed through skin.  
Inhalation: Vapor may irritate nose and throat. Vapor overexposure may cause drowsiness.  
Oral: No significant effects expected from a single short-term exposure.

Prolonged/Repeated Exposure Effects

Skin: Repeated skin contact may cause allergic skin reaction.  
Inhalation: Overexposure by inhalation may injure the following organ(s):Nervous system. Liver.

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Oral: Overexposure by ingestion may injure the following organ(s): Blood. Liver. Bone marrow. Kidneys. Nervous system.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

**4. FIRST AID MEASURES**

Eye: Immediately flush with water for 15 minutes. Get medical attention.

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

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

Oral: Get medical attention.

Comments: Treat according to person's condition and specifics of exposure.

**5. FIRE FIGHTING MEASURES**

Flash Point: 392 °F / 200 °C (Closed Cup)

Autoignition Temperature: Not determined.

Flammability Limits in Air: Not determined.

Extinguishing Media: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO<sub>2</sub>), dry chemical or water spray. Water can be used to cool fire exposed containers.

Fire Fighting Measures: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Determine the need to evacuate or isolate the area according to your local emergency plan.

Unusual Fire Hazards: None.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Metal oxides. Formaldehyde. Sulfur oxides.

**MOLYKOTE(R) 7400 ANTI-FRICTION COATING****6. ACCIDENTAL RELEASE MEASURES**

Containment/Clean up: Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. 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 absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal 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 federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills. Call Dow Corning Corporation, (989) 496-5900, if additional information is required.

**7. HANDLING AND STORAGE**

Use with adequate ventilation. Avoid eye contact. Avoid skin contact. Avoid breathing vapor. Keep container closed. Do not take internally.

Use reasonable care and store away from oxidizing materials.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Component Exposure Limits**

<u>CAS Number</u>	<u>Component Name</u>	<u>Exposure Limits</u>
None	Thermoplastic acrylate resin based on methylmethacrylate and butylacr	Observe n-butyl acrylate limits. ACGIH TLV: TWA 2 ppm. Observe methyl methacrylate limits. OSHA PEL (final rule): TWA 100 ppm and ACGIH TLV: TWA 50 ppm, STEL 100 ppm.
7782-42-5	Graphite	OSHA PEL (final rule): TWA 15 mg/m <sup>3</sup> total dust, 5 mg/m <sup>3</sup> respirable fraction. ACGIH TLV: TWA 2 mg/m <sup>3</sup> respirable fraction.
10102-40-6	Sodium molybdate dihydrate	Observe molybdenum limits. OSHA PEL (final rule): TWA 5 mg/m <sup>3</sup> and ACGIH TLV: TWA 0.5 mg/m <sup>3</sup> respirable fraction for soluble compounds as Mo. OSHA PEL (final rule): TWA 15 mg/m <sup>3</sup> total dust and ACGIH TLV: TWA 10 mg/m <sup>3</sup> inhalable fraction, 3 mg/m <sup>3</sup> respirable fraction for metal and insoluble compounds as Mo.
107-21-1	Ethylene glycol	ACGIH TLV: Ceiling 100 mg/m <sup>3</sup> .

**Engineering Controls**

**MOLYKOTE(R) 7400 ANTI-FRICTION COATING**

Local Ventilation: Recommended.  
General Ventilation: Recommended.

**Personal Protective Equipment for Routine Handling**

Eyes: 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.

Suitable Gloves: Butyl Rubber. Nitrile Rubber. Neoprene Rubber(R).

Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits as determined by air sampling or are unknown, appropriate respiratory protection should be worn. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

**Personal Protective Equipment for Spills**

Eyes: Use full face respirator.

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.

Inhalation/Suitable Respirator: Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Precautionary Measures: Avoid eye contact. Avoid skin contact. Avoid breathing vapor. Keep container closed. Do not take internally. Use reasonable care.

Comments: None.

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**

Physical Form: Liquid  
Color: Gray  
Odor: Slight odor

**MOLYKOTE(R) 7400 ANTI-FRICTION COATING**

Specific Gravity @ 25°C: 1.165  
 Viscosity: 24 cSt

Freezing/Melting Point: Not determined.  
 Boiling Point: > 35 °C  
 Vapor Pressure @ 25°C: Not determined.  
 Vapor Density: Not determined.  
 Solubility in Water: Not determined.  
 pH: Not determined.  
 Volatile Content: Not determined.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

**10. STABILITY AND REACTIVITY**

Chemical Stability: Stable.  
 Hazardous Polymerization: Hazardous polymerization will not occur.  
 Conditions to Avoid: None.  
 Materials to Avoid: Oxidizing material can cause a reaction.

**11. TOXICOLOGICAL INFORMATION****Component Toxicology Information**

Animal tox studies of Ethylene Glycol have shown that prolonged exposure to high vapor concentration or ingestion of high doses may cause birth defects and decreased fertility of lab animals.

**Special Hazard Information on Components****Teratogens**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>	
107-21-1	1.0 - 5.0	Ethylene glycol	Evidence of teratogenicity (birth defects) in laboratory animals.

**Reproductive Effects**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>	
10102-40-6	1.0 - 5.0	Sodium molybdate dihydrate	Evidence of reproductive effects in laboratory animals.

**Sensitizers**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
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None	5.0 - 10.0	Thermoplastic acrylate resin based on methylmethacrylate and butylac	Possible skin sensitizer.
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**12. ECOLOGICAL INFORMATION****Environmental Fate and Distribution**

Complete information is not yet available.

**Environmental Effects**

Complete information is not yet available.

**Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

## Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

**13. DISPOSAL CONSIDERATIONS****RCRA Hazard Class (40 CFR 261)**

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal.

Call Dow Corning Corporate Environmental Management, (989) 496-6315, if additional information is required.

**14. TRANSPORT INFORMATION****DOT Road Shipment Information (49 CFR 172.101)**

Not subject to DOT.

**Ocean Shipment (IMDG)**

Not subject to IMDG code.

**Air Shipment (IATA)**

Not subject to IATA regulations.

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

**MOLYKOTE(R) 7400 ANTI-FRICTION COATING****15. REGULATORY INFORMATION**

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

**EPA SARA Title III Chemical Listings****Section 302 Extremely Hazardous Substances:**

None.

**Section 304 CERCLA Hazardous Substances:**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
107-21-1	1.0	Ethylene glycol

**Section 312 Hazard Class:**

Acute: Yes  
Chronic: Yes  
Fire: No  
Pressure: No  
Reactive: No

**Section 313 Toxic Chemicals:**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
107-21-1	1.0	Ethylene glycol

**Supplemental State Compliance Information****California**

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
14808-60-7	<0.1	Quartz

Carcinogenic.

**Massachusetts**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
1317-33-5	10.0 - 30.0	Molybdenum disulfide

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7782-42-5	5.0 - 10.0	Graphite
107-21-1	1.0 - 5.0	Ethylene glycol
14808-60-7	<0.1	Quartz

**New Jersey**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
7732-18-5	> 60.0	Water
1317-33-5	10.0 - 30.0	Molybdenum disulfide
None	5.0 - 10.0	Thermoplastic acrylate resin based on methylmethacrylate and butylacr
7782-42-5	5.0 - 10.0	Graphite
10102-40-6	1.0 - 5.0	Sodium molybdate dihydrate
107-21-1	1.0 - 5.0	Ethylene glycol

**Pennsylvania**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
7732-18-5	> 60.0	Water
1317-33-5	10.0 - 30.0	Molybdenum disulfide
None	5.0 - 10.0	Thermoplastic acrylate resin based on methylmethacrylate and butylacr
7782-42-5	5.0 - 10.0	Graphite
107-21-1	1.0 - 5.0	Ethylene glycol

**16. OTHER INFORMATION**

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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