

(10109)



DOW CORNING CORPORATION

Material Safety Data Sheet

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Version: 2.0
Revision Date: 2012/08/28

MOLYKOTE(R) G-N METAL ASSEMBLY PASTE

1. PRODUCT AND COMPANY IDENTIFICATION

MSDS No.: 02076683

SUPPLIER:
Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686

Prepared by Product Safety: (800) 248-2481
NEWALTA: (800) 567-7455
Revision Date: 2012/08/28

MANUFACTURER:
Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900

WHMIS CLASSIFICATION: Class D, Division 1, Subdivision B.

Material Usage: Lubricant

APPROVED MATERIAL

JAN 15 2013

MSDS # 10109

APPROVED BY *[Signature]*

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Generic Description: Inorganic compounds in mineral oil
Physical Form: Paste
Colour: Charcoal gray
Odour: Slight

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POTENTIAL HEALTH EFFECTS

Acute Effects

- Eye: Direct contact may cause mild irritation.
- Skin: No significant irritation expected from a single short-term exposure.
- Inhalation: Material is not likely to present an inhalation hazard at ambient conditions. However, if material is heated or high vapor concentration is attained, central nervous system depression may occur, which is characterized by drowsiness, dizziness, confusion or loss of coordination.
- Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

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Skin: Repeated or prolonged contact may cause defatting and drying of skin which may result in skin irritation and dermatitis.

Inhalation: No known applicable information.

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

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
1317-33-5	15.0 - 40.0	Molybdenum disulfide
7784-30-7	1.0 - 5.0	Aluminum phosphate
7631-86-9	1.0 - 5.0	Silicon dioxide

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555.

4. FIRST AID MEASURES

Eye: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes while holding the eyelid(s) open. Obtain medical attention.

Skin: Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Flush with lukewarm gently flowing water for 15 minutes. If irritation persists, repeat flushing. If irritation persists, obtain medical advice.

Inhalation: If symptoms are experienced remove source of contamination or move victim to fresh air. If irritation persists, obtain medical advice.

Oral: If irritation or discomfort occur, obtain medical advice.

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

5. FIRE-FIGHTING MEASURES

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Flash Point: > 212 °F / > 100 °C (Closed Cup)

Autoignition Temperature: Not available.

Flammability Limits in Air: Not available.

Extinguishing Media: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO₂), 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. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Unusual Fire Hazards: None.

6. ACCIDENTAL RELEASE MEASURES

Containment/Clean up: Observe all personal protection equipment recommendations described in Sections 5 and 8. 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 absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, provincial, 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.

Note: See Section 8 for Personal Protective Equipment for Spills. Refer to Section 1 to obtain telephone numbers, 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. This material in its finely divided form presents an explosion hazard. Follow NFPA 654 (for chemical dusts) or 484 (for metal dusts) as appropriate for managing dust hazards to minimize secondary explosion potential.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Consult local authorities for acceptable provincial values.

<u>CAS Number</u>	<u>Component Name</u>	<u>Exposure Limits</u>
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7631-86-9	Silicon dioxide	OSHA PEL (final rule): TWA 80mg/m ³ SiO ₂ . NIOSH REL: TWA 6mg/m ³ . LC50: > 2.08 mg/l - Inhalation Rat ; 4hr dust/mist LD50: > 3,300 mg/kg - Oral Rat LD50: > 5,000 mg/kg - Dermal Rabbit
1317-33-5	Molybdenum disulfide	ACGIH TLV: TWA 10mg/m ³ inhalable fraction, 3 mg/m ³ respirable fraction for metal and insoluble compounds as Molybdenum disulfide.
7784-30-7	Aluminum phosphate	Observe aluminum (soluble salts) limits. OSHA PEL (final rule) and ACGIH TLV, as aluminum: TWA 2 mg/m ³ .

Engineering Controls

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. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.

Suitable Gloves: Avoid skin contact by implementing good industrial hygiene practices and procedures. Select and use gloves and/or protective clothing to further minimize the potential for skin contact. Consult with your glove and/or personnel protective equipment manufacturer for selection of appropriate compatible materials.

Inhalation: 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: Respiratory protection is not needed under ambient conditions. If vapor is generated when material is heated or handled, the following is advised. 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 CSA Standard Z94.4-93 and use NIOSH/MHSA approved respirators.

Personal Protective Equipment for Spills

Eyes: Use full face respirator.

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Skin:	Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.
Inhalation/Suitable Respirator:	Respiratory protection recommended. Follow CSA Standard Z94.4-93 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.

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:	Paste
Color:	Charcoal gray
Odor:	Slight
Odor Threshold:	Not available.
Specific Gravity @ 25°C:	1.35
Viscosity:	Not available.
Freezing/Melting Point:	Not available.
Boiling Point:	Not available.
Vapor Pressure @ 25°C:	Not available.
Vapor Density:	Not available.
Evaporation Rate:	Not available.
Solubility in Water:	Not available.
Coefficient of Water/Oil	Not available.
Distribution:	
pH:	Not available.
Volatile Content:	Not available.
Flash Point:	> 212 °F / > 100 °C (Closed Cup)
Autoignition Temperature:	Not available.
Flammability Limits in Air:	Not available.

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.

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Materials to Avoid: Oxidizing material can cause a reaction.

Hazardous Decomposition Products

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

11. TOXICOLOGICAL INFORMATION

Special Hazard Information on Components

No known applicable information.

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

Can be incinerated in accordance with local regulations.

Call local hazardous waste disposal company or provincial waste authorities for more information. Refer to Section 1 to obtain telephone numbers, if additional information is required.

14. TRANSPORT INFORMATION

MOLYKOTE(R) G-N METAL ASSEMBLY PASTE**Canada Road (Based on IMDG Regulations)**

Not subject to local road regulations.

Ocean Shipment (IMDG)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Hazard Technical Name: Zinc pyrophosphate / Tallowalkyltriethylene diamineoleate

Hazard Class: 9

UN/NA Number: UN 3077

Packing Group: III

Hazard Label(s): miscellaneous

Marine Pollutant: Zinc pyrophosphate
Tallowalkyltriethylene diamineoleate

Air Shipment (IATA)

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.

Hazard Technical Name: Zinc pyrophosphate / Tallowalkyltriethylene diamineoleate

Hazard Class: 9

UN/NA Number: UN 3077

Packing Group: III

Hazard Label(s): Miscellaneous dangerous goods

Apply Gross Wt Supplemental Label to Outer Package if shipping Limited Quantity

Refer to Section 1 to obtain telephone numbers, if additional information is required.

15. REGULATORY INFORMATION

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

WHMIS CLASSIFICATION: Class D, Division 1, Subdivision B.

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DSL Status: All chemical substances in this material are included on or exempted from the DSL.

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

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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