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MOLYKOTE(R) 1000 PASTE

1. PRODUCT AND COMPANY IDENTIFICATION

Dow Corning Corporation
South Saginaw Road
Customer Service: (989) 496-5900
Midland, Michigan 48686
Product Disposal Information: (989) 496-6315

CHEMTREC: (800) 424-9300

MSDS No.: 01444310 Revision Date: 2009/10/26

Generic Description: Inorganic and organic compounds in mineral oil

Physical Form: Paste
Color: Brown
Odor: Slight odor

NFPA Profile: Health 2 Flammability 1 Instability/Reactivity 0

Note: NFPA = National Fire Protection Association

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Acute Effects

Eye: Direct contact may cause moderate irritation.

Skin: May cause moderate irritation.

Inhalation: Vapor may irritate nose and throat. Vapor overexposure may cause drowsiness.

Oral: May cause vomiting. Aspiration of liquid while vomiting may injure lungs seriously.

Prolonged/Repeated Exposure Effects

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

skin irritation and dermatitis.

Inhalation: Overexposure by inhalation may injure the following organ(s): Liver. Kidneys. Spleen.

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.



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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

CAS Number	<u>Wt %</u>	Component Name
64742-56-9	<=42.0	Paraffinic petroleum distillates
7789-75-5	15.0 - 40.0	Calcium fluoride
7440-50-8	7.0 - 13.0	Copper
17265-14-4	30-70	Disodium sebacate

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

4. FIRST AID MEASURES

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

Skin: Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get

medical attention if irritation or other ill effects develop or persist.

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

Oral: Get medical attention. Do not induce vomiting.

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

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable.

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

(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.



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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, 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 (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, mist, dust, or fumes. 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>

7789-75-5 Calcium fluoride Observe fluoride limits. OSHA PEL and ACGIH TLV, as

fluorine: TWA 2.5 mg/m3.

7440-50-8 Copper OSHA PEL (final rule), as copper: fume - TWA 0.1 mg/m3,

dusts and mists - TWA 1 mg/m3. ACGIH TLV, as copper: fume - TWA 0.2 mg/m3; dusts and mists - TWA 1 mg/m3.

Engineering Controls

Local Ventilation: Recommended.
General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection - safety glasses as a minimum.



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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.

Suitable Gloves: Teflon(R). Silver Shield(R). Viton(R). 4H(R).

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: General and local exhaust ventilation is recommended to maintain vapor exposures below

recommended limits. Where concentrations are above recommended limits 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 chemical worker's goggles.

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 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, mist, dust, or fumes. 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: Brown
Odor: Slight odor

Specific Gravity @ 25°C: 1.26

Viscosity: Not determined.

Freezing/Melting Point: Not determined.

Boiling Point: Not determined.

Vapor Pressure @ 25°C: Not determined. Vapor Density: Not determined.

Solubility in Water: Not determined.

pH: Not determined.



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Volatile Content: Not determined.
Flash Point: Not applicable.
Autoignition Temperature: Not determined.
Flammability Limits in Air: 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 will not occur.

Polymerization:

Conditions to Avoid: None.

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: Sulfur oxides. Metal oxides. Nitrogen oxides. Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde. Fluorine compounds.

11. TOXICOLOGICAL INFORMATION

Component Toxicology Information

Inhalation of fumes may result in metal fume fever, a flu-like illness with symptoms of metallic taste, fever and chills, aches, chest tightness, and cough.

Long term exposure to fluorides can cause fluorosis with bone changes, mottled teeth, weight loss and anemia.

Special Hazard Information on Components

No known applicable information.

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Complete information is not yet available.

Environmental Effects



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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 (989) 496-6315, if additional information is required.

14. TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101)

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

Hazard Technical Name: Tallowalkyltriethylene diamineoleate / Zinc

Hazard Class: 9

UN/NA Number: UN 3077

Packing Group: III

Hazard Label(s): Class 9

Remarks: Above applies only to containers over 119 gallons or 450 liters.

Ocean Shipment (IMDG)

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

Hazard Technical Name: Tallowalkyltriethylene diamineoleate / Zinc



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Hazard Class: 9

UN/NA Number: UN 3077

Packing Group: III

Hazard Label(s): miscellaneous

Marine Pollutant: Tallowalkyltriethylene diamineoleate

Zinc

Air Shipment (IATA)

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

Hazard Technical Name: Tallowalkyltriethylene diamineoleate / Zinc

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

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

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 (40 CFR 355):

None

Section 304 CERCLA Hazardous Substances (40 CFR 302):

CAS Number Wt % Component Name

7440-50-8 8.0 Copper

7440-66-6 4.0 Zinc



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Section 311/312 Hazard Class (40 CFR 370):

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

Section 313 Toxic Chemicals (40 CFR 372):

CAS Number	Wt %	Component Name
7440-50-8	8.0	Copper
7440-66-6	4.0	Zinc

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

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.

None known.

Massachusetts

CAS Number	<u>Wt %</u>	Component Name
64742-56-9	<=42.0	Paraffinic petroleum distillates
7782-42-5	10.0 - 30.0	Graphite
7440-50-8	7.0 - 13.0	Copper
7440-66-6	3.0 - 7.0	Zinc
7631-86-9	1.0 - 5.0	Silica, amorphous
New Jersey		

CAS Number	<u>Wt %</u>	Component Name
64742-65-0	<=42.0	Solvent dewaxed heavy paraffinic petroleum distillate



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64742-56-9	<=42.0	Paraffinic petroleum distillates
7789-75-5	15.0 - 40.0	Calcium fluoride
7782-42-5	10.0 - 30.0	Graphite
7440-50-8	7.0 - 13.0	Copper
9003-29-6	5.0 - 10.0	Polybutene
7440-66-6	3.0 - 7.0	Zinc
7631-86-9	1.0 - 5.0	Silica, amorphous
Pennsylvania		
CAS Number	<u>Wt %</u>	Component Name
64742-65-0	<=42.0	Solvent dewaxed heavy paraffinic petroleum distillate
64742-56-9	<=42.0	Paraffinic petroleum distillates
7789-75-5	15.0 - 40.0	Calcium fluoride
7782-42-5	10.0 - 30.0	Graphite
7440-50-8	7.0 - 13.0	Copper
9003-29-6	5.0 - 10.0	Polybutene
17265-14-4	3.0 - 7.0	Disodium sebacate
7440-66-6	3.0 - 7.0	Zinc
7631-86-9	1.0 - 5.0	Silica, amorphous

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.

(R) indicates Registered Trademark