

**MOLYKOTE(R) 111 COMPOUND**

Version 1.0      Revision Date: 09/18/2014      MSDS Number: 566272-00001      Date of last issue: -  
 Date of first issue: 09/18/2014

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : MOLYKOTE(R) 111 COMPOUND  
 Product code : 000000000001889834  
 Chemical nature : Silicone grease

**Manufacturer or supplier's details**

Company name of supplier : Dow Corning Corporation  
 Address : South Saginaw Road  
 Midland Michigan 48686  
 Telephone : (989) 496-6000  
 Emergency telephone : 24 Hour Emergency Telephone : (989) 496-5900  
 CHEMTREC : (800) 424-9300  
 Disposal considerations : (989) 496-6315

**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricants and lubricant additives

**SECTION 2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance	Grease
Color	white, translucent
Odor	none
Hazard Summary	No known physical or health hazards.

**OSHA Regulatory status** : This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

**Potential Health Effects**

Inhalation : No significant effects expected from a single short-term exposure.  
 Skin : No significant irritation expected from a single short-term exposure.  
 Eyes : No significant irritation expected from a single exposure.

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Ingestion : No significant effects expected from a single short-term exposure.

Aggravated Medical Condition : None known.

**Carcinogenicity:**

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture  
 Chemical nature : Silicone grease

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Silicon dioxide	7631-86-9	>= 5 - < 10

**SECTION 4. FIRST AID MEASURES**

If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.  
Get medical attention if symptoms occur.

In case of eye contact : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.



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- Protection of first-aiders : No special precautions are necessary for first aid responders.
- Notes to physician : Treat symptomatically and supportively.

**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Dry chemical  
Carbon dioxide (CO2)
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides  
Silicon oxides  
Formaldehyde  
Boron oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.  
Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Follow safe handling advice and personal protective equipment recommendations.
- Environmental precautions : Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material.  
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 absor-



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bent.  
Local or national 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 regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

**SECTION 7. HANDLING AND STORAGE**

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.  
Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers.  
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL

- Engineering measures** : Processing may form hazardous compounds (see section 10).  
Ensure adequate ventilation, especially in confined areas.  
Minimize workplace exposure concentrations.

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**Personal protective equipment**

- Respiratory protection : No personal respiratory protective equipment normally required.
- Hand protection  
Remarks : Wash hands before breaks and at the end of workday.
- Eye protection : Wear the following personal protective equipment:  
Safety glasses
- Skin and body protection : Skin should be washed after contact.
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before re-use.  
These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : Grease
- Color : white, translucent
- Odor : none
- Odor Threshold : No data available
- pH : Not applicable
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : Not applicable
- Flash point : > 101.1 °C  
Method: closed cup
- Evaporation rate : Not applicable
- Flammability (solid, gas) : Not classified as a flammability hazard
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapor pressure : Not applicable
- Relative vapor density : No data available

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Relative density : 1.1

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : No data available

Autoignition temperature : No data available

Thermal decomposition : No data available

Viscosity  
Viscosity, dynamic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Use at elevated temperatures may form highly hazardous compounds.  
Can react with strong oxidizing agents.  
Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products  
Thermal decomposition : Formaldehyde

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

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**Ingredients:****Silicon dioxide:**

Acute oral toxicity : LD50 (Rat): > 3,300 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity  
Remarks: Information taken from reference works and the literature.

Acute inhalation toxicity : LC50 (Rat): > 2.08 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Information taken from reference works and the literature.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Information taken from reference works and the literature.

**Skin corrosion/irritation**

Not classified based on available information.

**Ingredients:****Silicon dioxide:**

Result: No skin irritation  
Remarks: Information taken from reference works and the literature.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Ingredients:****Silicon dioxide:**

Result: No eye irritation  
Remarks: Information taken from reference works and the literature.

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.  
Respiratory sensitization: Not classified based on available information.

**Ingredients:****Silicon dioxide:**

Assessment: Does not cause skin sensitization.

Test Type: Skin: test type not specified  
Species: Guinea pig  
Remarks: No known sensitising effect.  
Information taken from reference works and the literature.

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**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:****Silicon dioxide:**

Genotoxicity in vitro : Result: negative  
Remarks: Information taken from reference works and the literature.

Genotoxicity in vivo : Application Route: Ingestion  
Result: negative  
Remarks: Information taken from reference works and the literature.

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available



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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Resource Conservation and Recovery Act (RCRA) : This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.
- Waste from residues : Dispose of in accordance with local regulations.
- Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14. TRANSPORT INFORMATION****International Regulation****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation****49 CFR**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION****OSHA Hazards** : No OSHA Hazards**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

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**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**US State Regulations**

**Pennsylvania Right To Know**

Dimethyl Siloxane, Trimethylsiloxy-terminated	63148-62-9	70 - 90 %
Silicon dioxide	7631-86-9	5 - 10 %
Silicone Metalloid Complex	Proprietary Ingredient	5 - 10 %

**New Jersey Right To Know**

Dimethyl Siloxane, Trimethylsiloxy-terminated	63148-62-9	70 - 90 %
Silicon dioxide	7631-86-9	5 - 10 %
Silicone Metalloid Complex	Proprietary Ingredient	5 - 10 %

**California Prop 65** : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**The ingredients of this product are reported in the following inventories:**

- NZIoC : All ingredients listed or exempt.
- REACH : All ingredients (pre-)registered or exempt.
- TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
- PICCS : All ingredients listed or exempt.
- KECI : All ingredients listed, exempt or notified.
- AICS : All ingredients listed or exempt.
- IECSC : All ingredients listed or exempt.
- ENCS/ISHL : All components are listed on ENCS/ISHL or exempted from inventory listing.
- DSL : This product contains one or more substances which are not on the Canadian Domestic Substances List (DSL). Import of this product into Canada has volume limitations. For volume limits please consult Dow Corning Regulatory Compliance.

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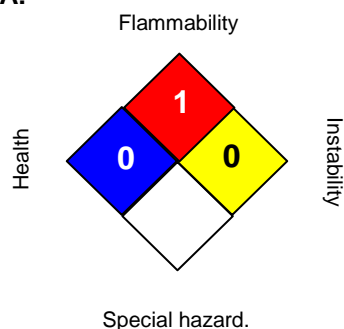
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**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

**Registration: Trade Secret**

Component	Registration number
Silicone Metalloid Complex	NJ TSRN 14962700-8472P

**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

**Full text of other abbreviations**

NIOSH REL : USA. NIOSH Recommended Exposure Limits  
OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts  
NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek  
OSHA Z-3 / TWA : 8-hour time weighted average

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations

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in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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