

**MOLYKOTE(R) 55 O-RING GREASE**

Version 1.1      Revision Date: 11/02/2014      MSDS Number: 623335-00002      Date of last issue: 10/09/2014  
Date of first issue: 10/09/2014

**SECTION 1. IDENTIFICATION**

Product name : MOLYKOTE(R) 55 O-RING GREASE  
000000000001889826

Product code : DCC000004416

**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

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

Recommended use : Lubricants and lubricant additives

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Skin sensitization : Category 1

**GHS Label element**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H317 May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
**Disposal:**

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P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

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

Substance / Mixture : Mixture  
Chemical nature : Silicone grease

**Hazardous ingredients**

Chemical Name	CAS-No.	Concentration (%)
Lithium stearate	4485-12-5	>= 20 - < 30
Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7	>= 0.1 - < 1

**SECTION 4. FIRST AID MEASURES**

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.

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

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.  
Remove contaminated clothing and shoes.  
Get medical attention.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.

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.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

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Notes to physician : Treat symptomatically and supportively.

**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)
- 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  
Metal 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 : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
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 absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items

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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 : Do not get on skin or clothing.  
Do not swallow.  
Avoid contact with eyes.  
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
Lithium stearate	4485-12-5	TWA	10 mg/m <sup>3</sup>	ACGIH

**Hazardous components without workplace control parameters**

Ingredients	CAS-No.
Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7

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

**Personal protective equipment**

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are

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unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA 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.

- Hand protection  
Material : Impervious gloves
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Eye protection : Wear the following personal protective equipment:  
Safety glasses
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- 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
- Odor : slight
- Odor Threshold : No data available
- pH : Not applicable

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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

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

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temperatures.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products

Thermal decomposition : Benzene  
Formaldehyde

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Skin contact

Ingestion

Eye contact

**Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

**Ingredients:****Lithium stearate:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal toxicity

Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Acute oral toxicity : LD50 (Rat): 2,900 mg/kg

Acute inhalation toxicity : Acute toxicity estimate : 5.5 mg/l  
Test atmosphere: dust/mist  
Method: Expert judgment

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Species: Rabbit

Result: No skin irritation

Remarks: Based on test data

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**Ingredients:****Lithium stearate:**

Species: Rabbit

Result: No skin irritation

Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Species: Rabbit

Result: No skin irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Ingredients:****Lithium stearate:**

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

**Respiratory or skin sensitization**

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

**Ingredients:****Lithium stearate:**

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse

Method: OECD Test Guideline 429

Result: negative

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Test Type: Maximization Test (GPMT)

Routes of exposure: Skin contact

Species: Guinea pig

Result: positive

Remarks: Based on data from similar materials

Assessment: Probability or evidence of high skin sensitization rate in humans

**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:****Lithium stearate:**

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Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

**Carcinogenicity**

Not classified based on available information.

**Ingredients:****Lithium stearate:**

Species: Mouse  
Application Route: Skin contact  
Exposure time: 104 weeks  
Result: negative  
Remarks: Based on data from similar materials

**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.

**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.

**Reproductive toxicity**

Not classified based on available information.

**Ingredients:****Lithium stearate:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Skin contact  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Skin contact  
Result: negative

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Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Repeated dose toxicity****Ingredients:****Lithium stearate:**

Species: Rat  
NOAEL: 88 mg/kg  
Application Route: Ingestion  
Exposure time: 90 d  
Remarks: Based on data from similar materials

Species: Rat  
NOAEL: 1,089.75 mg/kg  
Application Route: Skin contact  
Exposure time: > 43 d  
Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Species: Rat  
NOAEL: 50 mg/kg  
LOAEL: 150 mg/kg  
Application Route: Ingestion  
Exposure time: 54 d  
Remarks: Based on data from similar materials

**Aspiration toxicity**

Not classified based on available information.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Ingredients:****Lithium stearate:**

- Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials
- Toxicity to bacteria : NOEC: 13 mg/l  
Exposure time: 28 d  
Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 8.32 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC0 (Daphnia magna (Water flea)): 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 110 mg/l  
Exposure time: 96 h  
  
NOEC (Pseudokirchneriella subcapitata (green algae)): 33 mg/l  
Exposure time: 96 h
- Toxicity to bacteria : EC50: 800 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209

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**Persistence and degradability****Ingredients:****Lithium stearate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 78 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301C  
Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 9.9 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

**Bioaccumulative potential****Ingredients:****Lithium stearate:**

Bioaccumulation : Species: Fish  
Bioconcentration factor (BCF): 0.12  
Remarks: Based on data from similar materials

**Dihydro-3-(tetrapropenyl)furan-2,5-dione:**

Partition coefficient: n- : log Pow: > 4.39  
octanol/water

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**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.

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**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****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** : Acute Health Hazard**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, phenylmethyl siloxane, trimethyl-terminated	63148-52-7	50 - 70 %
Lithium stearate	4485-12-5	20 - 30 %
Di(2-ethylhexyl) sebacate	122-62-3	10 - 20 %

**New Jersey Right To Know**

Dimethyl, phenylmethyl siloxane, trimethyl-terminated	63148-52-7	50 - 70 %
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Lithium stearate	4485-12-5	20 - 30 %
Di(2-ethylhexyl) sebacate	122-62-3	10 - 20 %

**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:**

KECI : All ingredients listed, exempt or notified.

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.

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.

PICCS : All ingredients listed or exempt.

DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

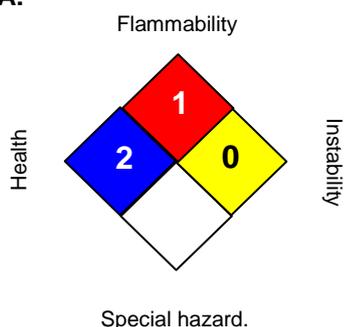
NZIoC : All ingredients listed or exempt.

**Inventories**

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

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

<b>HEALTH</b>	<b>2</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**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
 ACGIH / 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/>

Revision Date : 11/02/2014

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 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.

US / Z8