

Dow Corning Toray Co., Ltd.
Material Safety Data Sheet

'TORAY'

Dow Corning Toray Co., Ltd.

Revision Date: 2011/06/15
MSDS No.: 01843524

MOLYKOTE(R) EM-50L GREASE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : MOLYKOTE(R) EM-50L GREASE
Company Name : Dow Corning Toray Co., Ltd.
Address : 100-0004, 1-5-1 Otemachi, Chiyoda-ku, Tokyo, Japan
Phone Number : 03-3287-8300 (Customer Service)
Product Code : 01843524
Emergency Telephone Number : 0436-21-3101

2. HAZARDS IDENTIFICATION

GHS Classification : Not applicable for GHS classification.
GHS Label Elements
Pictogram or Symbol : None.
Signal Word : None.
Hazard Risk Statement : Not hazardous.
Precautionary Statement
Prevention : Avoid contact with skin and eyes.
Use only outdoors or in a well-ventilated area.
Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water.
Storage : Not applicable.
Disposal : Not applicable.
Other Hazard : None known.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization : Mixture
Generic Name : Inorganic and organic compounds in synthetic oil

Ingredients and Contents

<u>CAS</u> <u>Number</u>	<u>ENCS</u> <u>Number</u>	<u>Chemical</u> <u>formula</u>	<u>Wt %</u>	<u>Component Name</u>	<u>GHS Classification</u>
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Comments : No hazardous component exists in this material. This product doesn't contain the chemical(s) listed by Japanese regulations and/or classified and containing not less than cut-off value by GHS.

4. FIRST AID MEASURES

In Case of Inhalation : No first aid should be needed.
In Case of Skin Contact : Wash off with soap and water.
In Case of Eye Contact : Immediately flush with water.
In Case of Ingestion : Get medical attention.
Comments : Treat symptomatically.

Possible Acute and Chronic Health Effect:

Acute

Eyes : Direct contact may cause temporary redness and discomfort.
Skin : No significant irritation expected from a single short-term exposure.
Inhalation : No significant effects expected from a single short-term exposure.
Ingestion : Low ingestion hazard in normal use.

Chronic

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

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Material Safety Data Sheet



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 MSDS No.: 01843524

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	in skin irritation and dermatitis.
Inhalation	: No known applicable information.
Ingestion	: Repeated ingestion or swallowing large amounts may injure internally.
Other Health Hazard Information	: No known applicable information.
Important Symptoms and Hazard Effects	: No significant adverse effects from normal use.
Personal Protection for First Aid or Rescue Personnel	: No respiratory protection should be needed. Use proper protection - safety glasses as a minimum. Washing at mealtime and end of shift is adequate.
Note to physicians	: Treat symptomatically. For further information, the medical practitioner should contact Dow Corning Toray Co.,Ltd.

The above listed potential effects of overexposure are based on actual data, the results of studies performed upon similar compositions, component data, and/or expert review of the products.

5. FIRE-FIGHTING MEASURES

Extinguishing Media	: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO ₂), dry chemical or water spray. Water can be used to cool fire exposed containers.
Unsuitable Extinguishing Media	: None established.
Specific Hazards during Fire	: None.
Specific Fire Fighting	: Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Protection for Fire-fighter	: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures	: Avoid skin and eye contact. Do not take internally. Please refer to section 8 Protective equipment.
Environmental Precautions	: Do not allow large quantities to enter drains or surface waters.
Recovery and Neutralization/ Methods and Materials for Containment and Cleaning up	: Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Wipe up or scrape up and contain for salvage or disposal. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. 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 laws and regulations are applicable.

7. HANDLING AND STORAGE

Handling	
Technical Measures	: Use with adequate ventilation.
Local and General Ventilation	: Please refer to section 8 Ventilation.
Precautions	: Avoid skin and eye contact. Do not take internally.
Safe Handling Advice	: Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
Avoidance of Contact	: Please refer to section 10 Conditions to Avoid and Materials to Avoid.
Storage	
Technical Measures and Storage Conditions	: Use reasonable care and store away from oxidizing materials.
Packaging Material	: None established.

Dow Corning Toray Co., Ltd.
Material Safety Data Sheet

'TORAY'

Dow Corning Toray Co., Ltd.

Revision Date:

2011/06/15

MSDS No.:

01843524

MOLYKOTE(R) EM-50L GREASE

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Concentration Control Notification #79 from Ministry of Labor

None known.

Industrial Hygiene Standards

None known.

Engineering Measures

Local Ventilation : None should be needed.

General Ventilation : Recommended.

Personal Protective Equipment

Personal Protective Equipment for Routine Handling

Respiratory protection : No respiratory protection should be needed.

Suitable Respirator : None should be needed.

Hand protection : Chemical protective gloves should be worn where repeated or prolonged contact can occur.

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

Skin protection : Washing at mealtime and end of shift is adequate.

Hygiene Measures : Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

Personal Protective Equipment for Spills

Respiratory protection : No respiratory protection should be needed.

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

Skin protection : Washing at mealtime and end of shift is adequate.

Precautionary Measures : Avoid skin and eye contact. 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 State

Form : Grease

Color : White

Odour : Odorless

pH : Not determined.

Melting point/Freezing Point : Not determined.

Boiling point, Initial Boiling Point, and Boiling Range : Not determined.

Flash Point : > 200 °C(Cleveland Open Cup)

Characteristics of Explosives : Not determined.

Vapor Pressure @ 25°C : Not determined.

Vapor Density (air=1) : Not determined.

Specific Gravity : 0.84 g/cm³

Solubility : Not determined.

Octanol/water partition : Not determined.

Autoignition Temperature : Not determined.

Decomposition Temperature : Not determined.

Odour Threshold : Not determined.

Evaporation Rate : Not determined.

Flammability (solid, gas) : Not applicable.

Viscosity : Not determined.

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Material Safety Data Sheet



Dow Corning Toray Co., Ltd.

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MOLYKOTE(R) EM-50L GREASE

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

10. STABILITY AND REACTIVITY

Stability	: Stable.
Possibility of Hazardous Reactions	: Hazardous polymerization will not occur.
Conditions to Avoid	: None.
Materials to Avoid	: Can react with strong oxidising agents.
Hazardous Decomposition Products	: Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Metal oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Please refer to Section 3 and Section 4 Health Effect.

Skin Corrosion/ Irritation	: Please refer to Section 3 and Section 4 Health Effect.
Serious Eye Damage/ Irritation	: Please refer to Section 3 and Section 4 Health Effect.
Respiratory Organs Sensitization or Skin Sensitization	: Please refer to Section 3 and Section 4 Health Effect.
Germ Cell Mutagenicity	: Please refer to Section 3, Section 4 Health Effect and Section 15 ISHL Mutagen Substance.
Carcinogenicity	: Please refer to Section 3, Section 4 Health Effect and Section 15 ISHL Carcinogen Substance.
Reproductive Toxicity	: Please refer to Section 3 and Section 4 Health Effect.
Specific Target Organ. Systemic Toxicity (Single Exposure)	: Please refer to Section 3 and Section 4 Health Effect.
Specific Target Organ. Systemic Toxicity (Repeated Exposure)	: Please refer to Section 3 and Section 4 Health Effect.
Aspiration Hazard	: Please refer to Section 3 and Section 4 Health Effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects

Acute	: No adverse effects on aquatic organisms are predicted.
Chronic	: No adverse effects on aquatic organisms are predicted.

Fate and Effects in Waste Water Treatment Plants : No adverse effects on bacteria are predicted.

Persistence and Degradability Water

: Solid material, insoluble in water.

Bioaccumulative Potential Bioaccumulation

: No bioaccumulation potential.

Mobility in Soil

: This product is a solid and does not contain significant concentrations of water soluble constituents that may be leached from the product. It is therefore not likely to present a danger to terrestrial organisms.

Additional Environmental

: No specific information is available.

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Material Safety Data Sheet**

TORAY

Dow Corning Toray Co., Ltd.

Revision Date: 2011/06/15
MSDS No.: 01843524

MOLYKOTE(R) EM-50L GREASE

Information

13. DISPOSAL CONSIDERATIONS

- Residual Waste** : This product falls under Industrial Waste based on Wastes Disposal and Public Cleansing Law. Dispose of in accordance with local regulations.
- Contaminated Containers or Packaging** : Dispose of in accordance with local regulations.
- Note** : None.

14. TRANSPORT INFORMATION

- Local Regulations** : Refer to Section 15.
- International Regulations**
- Sea Transport (IMDG)**
Not subject to IMDG code.
- Air Transport (IATA)**
Not subject to IATA regulations.

15. REGULATORY INFORMATION

- Law Concerning Examination and Regulation of Manufacture, etc. of Chemical Substances** : This product is not applied into the code about Specified Chemical Substances, Monitoring Chemical Substances and Priority Assessment Chemical Substances.
- Industrial Safety and Health Law**
- Notification Substance** : Not applicable.
- Indication Substance** : Not applicable.
- Ordinance on Prevention of Organic Solvent Poisoning** : Not applicable.
- Ordinance on Prevention of Hazards due to Specified Chemical Substances** : Not applicable.
- Ordinance on Prevention of Lead Poisoning** : Not applicable.
- Ordinance on Prevention of Tetraalkyl Lead Poisoning** : Not applicable.
- Hazardous Material Banned Substance** : Not applicable.
- Mutagen Substance** : Not applicable.
- Carcinogen Substance** : Not applicable.
- High Pressure Gas Safe Law** : Not applicable.
- Fire Service Law** : DESIGNATED FLAMMABLE SUBSTANCES, OTHER PLASTICS (3,000kg)
- Poisonous and Deleterious Substance Control Law** : Not applicable.
- Pollutant Release and Transfer Register** : Not applicable.
- Marine Pollutant Prevention Law** : Not Classified as a Marine Pollutant

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Material Safety Data Sheet

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Revision Date: 2011/06/15
MSDS No.: 01843524

MOLYKOTE(R) EM-50L GREASE

Chemical Inventories

TSCA	: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
EINECS	: All ingredients listed or exempt.
AICS	: All ingredients listed or exempt.
IECSC	: All ingredients listed or exempt.
ENCS/ISHL	: All components are listed on ENCS/ISHL or its exempt rule.
KECL	: All ingredients listed, exempt or notified.
PICCS	: All ingredients listed or exempt.
DSL	: All chemical substances in this material are included on or exempted from the DSL.
HSNO	: All ingredients listed or exempt.

16. OTHER INFORMATION

Bibliography: Statue book of chemicals, Internal Technical Data and others

JAMP MSDSplus

This is based on MSDSplus(Ver.3.1) by JAMP(Joint Article Management Promotion-consortium).

Substance Information

This product contains NO substances in the relevant standard and to be notified. The objects of investigation are the followings. Substances are applied to the regulation for JP01, JP02, or JP03. They are contained intentionally or their concentration is more than or equal to the cutoff value for EU01 or EU02. Their concentration is more than or equal to 0.1% for EU03, EU04, or EU05. OT01, IA01, IA02 are not a subject of investigation.

Relevant Standard

<u>Code</u>	<u>Relevant Standard</u>	<u>Issued or revised</u>
JP01	Japanese Chemical Substances Control Law (Class I Specified Chemical Substances)	2009-10-30
JP02	Industrial Safety and Health Act (Substances Prohibited of Manufacturing etc.)	2007-09-07
JP03	Poisonous and Deleterious Substance Control Law (Specified Poisonous Substances)	2007-08-15
EU01	RoHS Directive	2002/95/EC
EU02	ELV Directive	2000/53/EC
EU03	CLP Annex VI CMR-Cat1,2	EC No 1272/2008, ATP1 included
EU04	REACH Annex XVII [Except EU03]	EC No 552/2009
EU05	REACH SVHC on the Candidate List	2010-01-13

Substances do not directly mean legally regulated. It depends on use and other conditions. For more information please refer to "How to make JAMP MSDSplus".

These data are offered in good faith as typical values and not as product specifications. They are believed accurate as of the date of this Material Safety Data Sheet based on a review of current composition and information supplied by vendors. 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. This Product has been developed and manufactured for general industrial use. For medical use, or other uses where safety considerations may be required, you must in advance test and review the safety of your intended application. Moreover, this Product is not for human implant nor human injection, nor use for applications which may present risk of accumulating inside human bodies.

DOW CORNING

Page: 7 of 7

**Dow Corning Toray Co., Ltd.
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