

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

---

**SECTION 1. IDENTIFICATION**

Product name : MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY  
Product code : 000000000002411563

**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 in accordance with 29 CFR 1910.1200**

Flammable aerosols : Category 1  
Gases under pressure : Dissolved gas  
Skin irritation : Category 2  
Specific target organ systemic toxicity - single exposure : Category 3

**GHS label elements**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H222 Extremely flammable aerosol.  
H280 Contains gas under pressure; may explode if heated.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness.

Precautionary Statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.

MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY

Version	Revision Date:	SDS Number:	Date of last issue: 03/23/2017
6.0	09/14/2017	1039661-00009	Date of first issue: 01/09/2015

P211 Do not spray on an open flame or other ignition source.  
P251 Pressurized container: Do not pierce or burn, even after use.  
P261 Avoid breathing spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**

P405 Store locked up.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

**Disposal:**

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 : Hydrocarbon aerosol propellant

**Hazardous ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
Naphtha, Petroleum, Light Alkylate	64741-66-8	>= 45 - <= 61
Liquified petroleum gas (LPG)	68476-85-7	>= 18 - <= 26
Molybdenum sulfide	1317-33-5	>= 10 - <= 16
White mineral oil (petroleum)	8042-47-5	>= 7 - <= 10
Graphite	7782-42-5	>= 2 - <= 2.6

**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.

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

Get medical attention if symptoms occur.	
In case of skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing 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	: Causes skin irritation. May cause drowsiness or dizziness.
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.
Notes to physician	: Treat symptomatically and supportively.

## SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO <sub>2</sub> ) Dry chemical
Unsuitable extinguishing media	: None known.
Specific hazards during fire fighting	: Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
Hazardous combustion products	: Carbon oxides Metal oxides Sulfur 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.

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version	Revision Date:	SDS Number:	Date of last issue: 03/23/2017
6.0	09/14/2017	1039661-00009	Date of first issue: 01/09/2015

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 : Remove all sources of ignition. 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. Prevent spreading over a wide area (e.g., by containment or oil barriers). 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 : Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. 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 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 with local exhaust ventilation. Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential

Advice on safe handling : Do not spray on an open flame or other ignition source. Do not get on skin or clothing. Do not breathe vapors or spray mist. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety

MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

- practice, based on the results of the workplace exposure assessment  
Keep away from heat and sources of ignition.  
Take precautionary measures against static discharges.  
Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Store locked up.  
Keep in a cool, well-ventilated place.  
Store in accordance with the particular national regulations.  
Do not pierce or burn, even after use.  
Keep cool. Protect from sunlight.
- Materials to avoid : Do not store with the following product types:  
Self-reactive substances and mixtures  
Organic peroxides  
Oxidizing agents  
Flammable solids  
Pyrophoric liquids  
Pyrophoric solids  
Self-heating substances and mixtures  
Substances and mixtures which in contact with water emit flammable gases  
Explosives

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Naphtha, Petroleum, Light Alkylate	64741-66-8	TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-1
Liquified petroleum gas (LPG)	68476-85-7	TWA	1,000 ppm 1,800 mg/m <sup>3</sup>	NIOSH REL
		TWA	1,000 ppm 1,800 mg/m <sup>3</sup>	OSHA Z-1
Molybdenum sulfide	1317-33-5	TWA (total dust)	15 mg/m <sup>3</sup> (Molybdenum)	OSHA Z-1
		TWA (Inhalable fraction)	10 mg/m <sup>3</sup> (Molybdenum)	ACGIH
		TWA (Respirable fraction)	3 mg/m <sup>3</sup> (Molybdenum)	ACGIH
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
Graphite	7782-42-5	TWA (Respirable)	2.5 mg/m <sup>3</sup>	NIOSH REL

**SAFETY DATA SHEET**



**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
 Date of first issue: 01/09/2015

		TWA (Respirable fraction)	2 mg/m <sup>3</sup>	ACGIH
		TWA (Dust)	15 Million particles per cubic foot	OSHA Z-3

**Engineering measures** : Minimize workplace exposure concentrations.  
 Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential  
 Use with local exhaust ventilation.

**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 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** : Chemical-resistant 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. Take note that the product is flammable, which may impact the selection of hand protection. 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.  
 Wear the following personal protective equipment:  
 Flame retardant antistatic protective clothing, unless assessment demonstrates that the risk of explosive atmospheres or flash fires is low

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015



## Hygiene measures

Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

- : 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.
- For further information regarding the use of silicones / organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry ([www.SEHSC.com](http://www.SEHSC.com)) or contact the Dow Corning customer service group.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Aerosol containing a dissolved gas
- Color : dark gray
- Odor : solvent
- 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 : Not applicable
- Evaporation rate : Not applicable
- Flammability (solid, gas) : Extremely flammable aerosol.
- Self-ignition : The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
- Upper explosion limit / Upper flammability limit : No data available
- Lower explosion limit / Lower flammability limit : No data available
- Vapor pressure : No data available
- Relative vapor density : No data available
- Relative density : 1
- Solubility(ies)

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version	Revision Date:	SDS Number:	Date of last issue: 03/23/2017
6.0	09/14/2017	1039661-00009	Date of first issue: 01/09/2015

Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	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
Particle size	:	Not applicable

## SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Extremely flammable aerosol. Vapors may form explosive mixture with air. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure. Can react with strong oxidizing agents.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Inhalation  
Skin contact  
Ingestion  
Eye contact

### Acute toxicity

Not classified based on available information.

### Product:

Acute dermal toxicity	:	Acute toxicity estimate: 4,717 mg/kg Method: Calculation method
-----------------------	---	--



**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

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

Acute inhalation toxicity : LC50 (Rat): > 7.6 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,200 - 2,500 mg/kg  
Remarks: Based on data from similar materials

**Liquified petroleum gas (LPG):**

Acute inhalation toxicity : LC50 (Mouse): 520400 ppm  
Exposure time: 2 h  
Test atmosphere: gas  
Remarks: Based on data from similar materials

**Molybdenum sulfide:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 2.82 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

**White mineral oil (petroleum):**

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

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**Graphite:**

MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

---

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

**Skin corrosion/irritation**

Causes skin irritation.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: Skin irritation

**Molybdenum sulfide:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

**White mineral oil (petroleum):**

Species: Rabbit  
Result: No skin irritation

**Graphite:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Species: Rabbit  
Result: No eye irritation

**Molybdenum sulfide:**

Species: Rabbit  
Result: No eye irritation  
Method: OECD Test Guideline 405

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

---

**White mineral oil (petroleum):**

Species: Rabbit  
Result: No eye irritation

**Graphite:**

Species: Rabbit  
Result: No eye irritation

**Respiratory or skin sensitization****Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Test Type: Buehler Test  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative

**Molybdenum sulfide:**

Test Type: Maximization Test  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative

**White mineral oil (petroleum):**

Test Type: Buehler Test  
Routes of exposure: Skin contact  
Species: Guinea pig  
Result: negative

**Graphite:**

Test Type: Local lymph node assay (LLNA)  
Routes of exposure: Skin contact  
Species: Mouse  
Result: negative

**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Genotoxicity in vitro : Test Type: Saccharomyces cerevisiae, gene mutation assay  
(in vitro)

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

Genotoxicity in vivo : Result: negative  
: Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Rat  
Application Route: Inhalation  
Result: negative

**Liquified petroleum gas (LPG):**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 474  
Result: negative

**Molybdenum sulfide:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

**White mineral oil (petroleum):**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

**Graphite:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Species: Mouse  
Application Route: Skin contact

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

Exposure time: 102 weeks  
Result: negative

### Liquified petroleum gas (LPG):

Species: Mouse  
Application Route: inhalation (gas)  
Exposure time: 103 weeks  
Result: negative  
Remarks: Based on data from similar materials

### Molybdenum sulfide:

Species: Rat  
Application Route: Ingestion  
Exposure time: 232 days  
Result: negative

### White mineral oil (petroleum):

Species: Rat  
Application Route: Ingestion  
Exposure time: 24 Months  
Result: negative

### 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 component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

### 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:

#### Naphtha, Petroleum, Light Alkylate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Inhalation  
Result: negative

#### Liquified petroleum gas (LPG):

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Result: negative

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

---

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 414  
Result: negative

**White mineral oil (petroleum):**

Effects on fertility : Test Type: One-generation reproduction toxicity study  
Species: Rat  
Application Route: Skin contact  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative

**Graphite:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the  
reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the  
reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 422  
Result: negative

**STOT-single exposure**

May cause drowsiness or dizziness.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Assessment: May cause drowsiness or dizziness.

**Liquified petroleum gas (LPG):**

Assessment: May cause drowsiness or dizziness.

**STOT-repeated exposure**

Not classified based on available information.

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

---

**Repeated dose toxicity****Ingredients:****Naphtha, Petroleum, Light Alkylate:**

Species: Rat  
NOAEL: 10 mg/l  
Application Route: inhalation (vapor)  
Exposure time: 13 Weeks  
Method: OPPTS 870.3465

**Liquified petroleum gas (LPG):**

Species: Rat  
NOAEL: 10000 ppm  
Application Route: inhalation (gas)  
Exposure time: 13 Weeks

**White mineral oil (petroleum):**

Species: Rat  
LOAEL: > 160 mg/kg  
Application Route: Ingestion  
Exposure time: 90 Days

Species: Rat  
LOAEL: >= 1 mg/l  
Application Route: inhalation (dust/mist/fume)  
Exposure time: 4 Weeks  
Method: OECD Test Guideline 412

**Graphite:**

Species: Rat  
NOAEL: 12 mg/m<sup>3</sup>  
Application Route: inhalation (dust/mist/fume)  
Exposure time: 28 Days  
Method: OECD Test Guideline 412

**Aspiration toxicity**

Not classified based on available information.

**Ingredients:****Naphtha, Petroleum, Light Alkylate:**

The substance or mixture is known to cause human aspiration toxicity hazards or has to be re-garded as if it causes a human aspiration toxicity hazard.

**White mineral oil (petroleum):**

The substance or mixture is known to cause human aspiration toxicity hazards or has to be re-garded as if it causes a human aspiration toxicity hazard.

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Ingredients:

##### **Naphtha, Petroleum, Light Alkylate:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 8.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 4.5 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 3.1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 2.6 mg/l Exposure time: 21 d Method: OECD Test Guideline 211

##### **Molybdenum sulfide:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 644.2 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 130.9 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)): 289.2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): > 17 mg/l Exposure time: 12 Months Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Ceriodaphnia dubia (water flea)): 156.5 mg/l Exposure time: 21 d Remarks: Based on data from similar materials
Toxicity to microorganisms	:	NOEC: > 950 mg/l Exposure time: 17 d Remarks: Based on data from similar materials

##### **White mineral oil (petroleum):**



# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	: NOEC (Pseudokirchneriella subcapitata (green algae)): 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	: NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l Exposure time: 28 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 1,000 mg/l Exposure time: 21 d

### Graphite:

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	: EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	: EC50: > 1,012.5 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

### Persistence and degradability

#### Ingredients:

#### Naphtha, Petroleum, Light Alkylate:

Biodegradability	: Result: Readily biodegradable. Biodegradation: 77 % Exposure time: 28 d Method: OECD Test Guideline 301F
------------------	---

#### Liquified petroleum gas (LPG):

Biodegradability	: Result: Readily biodegradable. Biodegradation: 70 %
------------------	--

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

### White mineral oil (petroleum):

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 31 %  
Exposure time: 28 d

### Bioaccumulative potential

### Ingredients:

#### Naphtha, Petroleum, Light Alkylate:

Partition coefficient: n-octanol/water : log Pow: > 4  
Remarks: Based on data from similar materials

#### Liquified petroleum gas (LPG):

Partition coefficient: n-octanol/water : log Pow: 1.09

#### Mobility in soil

No data available

#### Other adverse effects

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Resource Conservation and Recovery Act (RCRA) : When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste.

Waste Code : D001: Ignitability  
D018

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.  
If not otherwise specified: Dispose of as unused product.  
Please ensure aerosol cans are sprayed completely empty (including propellant)

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

UNRTDG

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version	Revision Date:	SDS Number:	Date of last issue: 03/23/2017
6.0	09/14/2017	1039661-00009	Date of first issue: 01/09/2015

UN number : UN 1950  
 Proper shipping name : AEROSOLS  
 ||Class : 2.1  
 Packing group : Not assigned by regulation  
 ||Labels : 2.1

**IATA-DGR**

UN/ID No. : UN 1950  
 Proper shipping name : Aerosols, flammable  
 ||Class : 2.1  
 Packing group : Not assigned by regulation  
 ||Labels : Flammable Gas  
 Packing instruction (cargo aircraft) : 203  
 Packing instruction (passenger aircraft) : 203

**IMDG-Code**

UN number : UN 1950  
 Proper shipping name : AEROSOLS  
 (Naphtha, Petroleum, Light Alkylate)  
 ||Class : 2.1  
 Packing group : Not assigned by regulation  
 ||Labels : 2.1  
 EmS Code : F-D, S-U  
 Marine pollutant : yes

**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**

UN/ID/NA number : UN 1950  
 Proper shipping name : Aerosols  
 ||Class : 2.1  
 Packing group : Not assigned by regulation  
 ||Labels : FLAMMABLE GAS  
 ||ERG Code : 126  
 Marine pollutant : yes(Naphtha, Petroleum, Light Alkylate)

**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 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

||SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

# MOLYKOTE(R) G-N METAL ASSEMBLY SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

Gases under pressure  
Skin corrosion or irritation  
Specific target organ toxicity (single or repeated exposure)

## 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

Naphtha, Petroleum, Light Alkylate	64741-66-8
Liquified petroleum gas (LPG)	68476-85-7
Molybdenum sulfide	1317-33-5
White mineral oil (petroleum)	8042-47-5
Graphite	7782-42-5

### 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.

### California List of Hazardous Substances

Molybdenum sulfide	1317-33-5
White mineral oil (petroleum)	8042-47-5
Graphite	7782-42-5

### California Permissible Exposure Limits for Chemical Contaminants

Molybdenum sulfide	1317-33-5
White mineral oil (petroleum)	8042-47-5
Graphite	7782-42-5

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

NZIoC : All ingredients listed or exempt.

TSCA : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

AICS : All ingredients listed or exempt.

IECSC : All ingredients listed or exempt.

KECI : All ingredients listed, exempt or notified.

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).

TCSI : All ingredients listed or exempt.

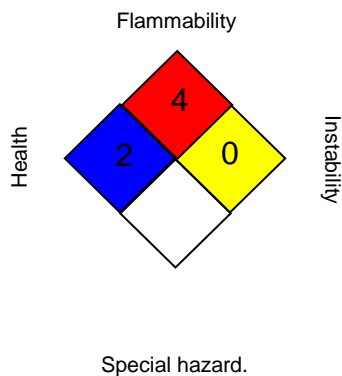
MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY

Version 6.0      Revision Date: 09/14/2017      SDS Number: 1039661-00009      Date of last issue: 03/23/2017  
Date of first issue: 01/09/2015

## SECTION 16. OTHER INFORMATION

## Further information

## NFPA:



## HMIS® IV:

HEALTH	/	2
FLAMMABILITY		4
PHYSICAL HAZARD		3

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

## Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to

**MOLYKOTE(R) G-N METAL ASSEMBLY  
SPRAY**

Version	Revision Date:	SDS Number:	Date of last issue: 03/23/2017
6.0	09/14/2017	1039661-00009	Date of first issue: 01/09/2015

---

50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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 : 09/14/2017

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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