



SAFETY DATA SHEET

Molyslip Dry Graphite Spray

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Molyslip Dry Graphite Spray

Product code

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Lubricant.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Molyslip
4 Huntsman Drive
Northbank Industrial Park
Irlam
Manchester
M44 5EG
UK
+44 (0)161 804 4700
+44 (0)161 804 4701
compliance@molyslip.co.uk

Supplied by:
Sil-Mid Limited
Roman Park, Roman Way
Coleshill, West Midlands
B46 1HG. UK
T: 01675 432850
E: info@silmid.com

Emergency Telephone No. +44 (0)1675 432850
(Monday to Friday, 08:00 – 17:30 – GMT)

1.4. Emergency telephone number

Emergency telephone +44 (0)161 804 4700 (8am to 4pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229 Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

Hazard pictograms



Signal word

Danger

Molyslip Dry Graphite Spray

Hazard statements	H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P261 Avoid breathing spray. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Contains	heptane, Tetra-n-butyl titanate, Polymer with water
Supplementary precautionary statements	P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a POISON CENTRE/doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P391 Collect spillage. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Molyslip Dry Graphite Spray

Petroleum gases, liquefied			60-100%
CAS number: 68476-85-7	EC number: 270-704-2		
This product is exempted from pre-registration and registration in accordance with Annex V			
Classification Flam. Gas 1 - H220 Press. Gas (Liq.) - H280			

n-heptane			30-60%
CAS number: 142-82-5	EC number: 205-563-8	REACH registration number: 01-2119475515-33-XXXX	
M factor (Acute) = 1	M factor (Chronic) = 1		
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			

Tetra-n-butyl titanate, Polymer with water			1-5%
CAS number: 162303-51-7	EC number: 500-687-1		
Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335, H336			

Graphite			1-5%
CAS number: 7782-42-5	EC number: 231-955-3	REACH registration number: 01-2119486977-12-XXXX	
Classification Not Classified			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Molyslip Dry Graphite Spray

Ingestion	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.
Skin contact	Rinse with water.
Eye contact	Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

4.2. Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur.
Skin contact	Redness. Irritating to skin.
Eye contact	Irritating to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
-----------------------------	------------------------

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Vapours may form explosive mixtures with air.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
---	---

Molyslip Dry Graphite Spray

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapours and spray/mists.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Molyslip Dry Graphite Spray

Storage precautions Store away from incompatible materials (see Section 10). Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Petroleum gases, liquefied

Long-term exposure limit (8-hour TWA): WEL 1750 mg/m³ respirable dust

Short-term exposure limit (15-minute): WEL 2180 mg/m³ respirable dust

n-heptane

Long-term exposure limit (8-hour TWA): WEL 500

Graphite

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

WEL = Workplace Exposure Limit

n-heptane (CAS: 142-82-5)

DNEL	Workers - Dermal; systemic effects: 300 mg/kg/day Workers - Inhalation; systemic effects: 2085 mg/m ³
PNEC	- Fresh water; 0.03 mg/l - marine water; 0.03 mg/l - Sediment (Freshwater); 4.4 mg/kg - Sediment (Marinewater); 4.4 mg/kg - Soil; 1.8 mg/kg

Graphite (CAS: 7782-42-5)

DNEL	Workers - Inhalation; Long term local effects: 1.2 mg/m ³
-------------	--

Tetra-n-butyl titanate, Polymer with water (CAS: 162303-51-7)

DNEL	Workers - Inhalation; Long term systemic effects: 127 mg/m ³
DMEL	Workers - Inhalation; Long term systemic effects: 127 mg/m ³
PNEC	Fresh water; 0.08 mg/l marine water; 0.008 mg/l Fresh water, Intermittent release; 2.25 mg/l Sediment (Freshwater); 0.069 mg/kg Sediment (Marinewater); 0.007 mg/kg Soil; 0.017 mg/kg STP; 65 mg/l

8.2. Exposure controls

Molyslip Dry Graphite Spray

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection

Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Dark. Grey.
Odour	Characteristic.
Flash point	< - 60°C Cleveland open cup.
Solubility(ies)	Immiscible with water.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

Molyslip Dry Graphite Spray

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react strongly with the product: Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity

None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H336 May cause drowsiness or dizziness.

Target organs

Central nervous system

Molyslip Dry Graphite Spray

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

Ingestion

Due to the physical nature of this product, it is unlikely that ingestion will occur.

Skin contact

Redness. Irritating to skin.

Eye contact

Irritating to eyes.

Route of exposure

Ingestion Inhalation Skin and/or eye contact

Target organs

Central nervous system

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Aquatic Acute 1 - H400 Very toxic to aquatic life. Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

Molyslip Dry Graphite Spray

SECTION 14: Transport information

General For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

14.1. UN number

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
UN No. (ADN)	1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS
Proper shipping name (ADN)	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

Transport labels



14.4. Packing group

ADR/RID packing group	None
IMDG packing group	None
ICAO packing group	None
ADN packing group	None

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

EmS F-D, S-U

Molyslip Dry Graphite Spray

ADR transport category 2
Tunnel restriction code (D)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.
The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Molyslip Dry Graphite Spray

Classification abbreviations and acronyms	Aerosol = Aerosol Eye Irrit. = Eye irritation Skin Irrit. = Skin irritation STOT SE = Specific target organ toxicity-single exposure Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Classification procedures according to Regulation (EC) 1272/2008	STOT SE 3 - H336: Skin Irrit. 2 - H315: Eye Irrit. 2 - H319: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 1 - H410: : Calculation method. Flam. Liq. 2 - H225: Aerosol 1 - H222, H229: : Expert judgement.
Training advice	Only trained personnel should use this material.
Revision date	11/09/2018
Revision	1
SDS number	5368
Hazard statements in full	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H229 Pressurised container: may burst if heated. H280 Contains gas under pressure; may explode if heated. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.