



Molyslip (Canada) Inc.
1145 Bellamy Road N. Unit 20
Scarborough, ON, Canada, M1H 1H5
Telephone: (416) 435 5523

Molyslip AS/40 Assembly Paste

SDS Preparation Date (mm/dd/yyyy): 12/13/2018

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Molyslip AS/40 Assembly Paste**

Product Code(s) : 3350-3359

Recommended use of the chemical and restrictions on use

: Pre-assembly paste to eliminate scuffing and seizure
Recommended restrictions: None Known.

Chemical family : Mixture

Name, address, and telephone number
of the supplier:

Molyslip (Canada) Inc.

1145 Bellamy Road N.
Unit 20
Scarborough, ON, Canada
M1H 1H5

Supplier's Telephone # : (416) 435-5523

24 Hr. Emergency Tel # : No information available.

Name, address, and telephone number of
the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Dark gray / black paste. Mild odour.

Most important hazards: Prolonged exposure may cause eye irritation. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Avoid release to the environment. See Section 12 for more environmental information.

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Hazard pictogram(s)

None required under U.S. OSHA Hazcom 2012 and Canadian WHMIS 2015 regulations.

Signal Word

Not required

Hazard statement(s)

Not required

Precautionary statement(s)

Not required

Other hazards

Other hazards which do not result in classification:

Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Prolonged exposure may cause eye irritation.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Distillates (petroleum), hydrotreated heavy naphthenic	Mineral oil	64742-52-5	45.0 - 70.0
Molybdenum disulfide	Molybdenum sulfide	1317-33-5	30.0 - 60.0
Bentonite	Bentonite clay	1302-78-9	1.0 - 5.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Call a physician.
- Inhalation* : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Obtain medical attention if symptoms develop and persist.
- Skin contact* : Wash with water and soap as a precaution. If irritation or symptoms develop, seek medical attention.
- Eye contact* : If in eyes, rinse with water for 15 minutes. If irritation persists, seek prompt medical attention.

Most important symptoms and effects, both acute and delayed

- : Prolonged exposure may cause eye irritation. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Burning may produce irritating, toxic and obnoxious fumes.

Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

Hazardous combustion products

- : Carbon oxides ;Sulfur oxides ;oxides of molybdenum

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Ensure clean-up is conducted by trained personnel only. Keep all other personnel upwind and away from the spill/release. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

- : Ventilate area of release. Stop spill or leak at source if safely possible. Dike for water control. Sweep up or vacuum up spillage and collect in suitable container for disposal.

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use in well ventilated area. Wear suitable protective equipment during handling. Avoid breathing dust and fume. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and direct flame. Avoid contact with incompatible materials. Wash thoroughly after handling.

Conditions for safe storage : Store in a cool, dry, well ventilated area, away from heat and ignition sources. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials : Strong oxidizing agents.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m ³ (As 'Oil mist, mineral') (inhalable)	N/Av	5 mg/m ³ (As 'Oil mist, mineral')	N/Av
Molybdenum disulfide	10 mg/m ³ (inhalable)	N/Av	15 mg/m ³ (total dust)	N/Av
Bentonite	N/Av	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

- : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection

- : Respiratory protection is required if the concentrations exceed the TLV. A NIOSH/MSHA approved air-purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may be used to reduce exposure.



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Skin protection : Wear protective gloves. Advice should be sought from glove suppliers.
Eye / face protection : Wear chemical splash goggles to prevent dusts from entering the eyes.
Other protective equipment : An eyewash station should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

General hygiene considerations

: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust and fume. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove and wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Dark gray / black paste.

Odour : Mild odor.

Odour threshold : N/Ap

pH : N/Ap

Melting/Freezing point : 260°C

Initial boiling point and boiling range

: 370°C

Flash point : > 200 °C (Base oil)

Flashpoint (Method) : Cleveland Open Cup

Evaporation rate (BuAe = 1) : N/Av

Flammability (solid, gas) : N/Ap

Lower flammable limit (% by vol.)

: N/Av

Upper flammable limit (% by vol.)

: N/Av

Oxidizing properties : N/Av

Explosive properties : Not explosive

Vapour pressure : Negligible.

Vapour density : Not available.

Relative density / Specific gravity

: 2.45

Solubility in water : insoluble

Other solubility(ies) : N/Av

Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: N/Av

Auto-ignition temperature : 230°C

Decomposition temperature : N/Av

Viscosity : N/Av

Volatiles (% by weight) : N/Ap

Volatile organic Compounds (VOC's)

: N/Ap

Absolute pressure of container

: N/Ap

Flame projection length : N/Ap

Other physical/chemical comments

: None known or reported by the manufacturer.



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SECTION 10. STABILITY AND REACTIVITY

- Reactivity** : Not expected to be reactive.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : Excessive heat. Do not use in areas without adequate ventilation.
Incompatible materials : See Section 7 (Handling and Storage) for further details.
Hazardous decomposition products : See Section 5 (Fire Fighting Measures).

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

- Routes of entry inhalation** : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : YES
Routes of exposure skin absorption : NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

- : Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

Sign and symptoms ingestion

- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin

- : Direct skin contact may cause slight or mild, transient irritation.

Sign and symptoms eyes

- : Direct eye contact may cause slight or mild, transient irritation.

Potential Chronic Health Effects

- : Prolonged exposure may cause eye irritation.

Mutagenicity

- : Not expected to be mutagenic in humans.

Carcinogenicity

- : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

- : Not expected to cause reproductive effects.

Sensitization to material

- : Not expected to be a skin or respiratory sensitizer.

Specific target organ effects

: This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Medical conditions aggravated by overexposure

- : None known.

Synergistic materials

- : Not available.

Toxicological data

- : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.



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<u>Chemical name</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Distillates (petroleum), hydrotreated heavy naphthenic	> 5 mg/L (mist)	> 5000 mg/kg	> 2000 mg/kg
Molybdenum disulfide	>2820 mg/m ³ 4 h (No mortality)	>2000 mg/kg (No mortality)	>2000 mg/kg (No mortality)
Bentonite	N/Av	20000mg/kg	N/Av

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Not classified for hazards to the environment. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC₅₀ / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 100 mg/L (Fathead minnow)	N/Av	None.
Molybdenum disulfide	1317-33-5	644.2 mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Daphnia</u>		
		<u>EC₅₀ / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 10 000 mg/L (Daphnia magna)	10 mg/L	None.
Molybdenum disulfide	1317-33-5	130.9 mg/L (Daphnia magna)	156.5 mg/L (Daphnia magna)	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Algae</u>		
		<u>EC₅₀ / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L/96hr (Green algae)	≥ 100 mg/L/72hr	None.
Molybdenum disulfide	1317-33-5	289.2mg/L (Green algae)	N/Av	None.

Persistence and degradability

: No data is available on the product itself.

Bioaccumulation potential

: No data is available on the product itself.



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Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	3.9 - 6 (calculated)	N/Av
Molybdenum disulfide (CAS 1317-33-5)	N/Av	N/Av

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle waste according to recommendations in Section 7.

Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None.	Not regulated.	not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None.	Not regulated.	Not regulated	none	
TDG Additional information	None.				

Special precautions for user : None known or reported by the manufacturer.

Environmental hazards : This substance does not meet the criteria for an environmentally hazardous substance according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

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

: Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:



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<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	NL	None.	None.	No	N/Ap
Molybdenum disulfide	1317-33-5	Yes	N/Ap	N/Av	No	N/Ap
Bentonite	1302-78-9	Yes	N/Ap	N/Av	No	NS

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: None.

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	No	N/Ap	No	No	No	No	No	No
Molybdenum disulfide	1317-33-5	No	N/Ap	No	Yes	No	No	No	No
Bentonite	1302-78-9	No	N/Ap	No	No	No	No	No	No

Canadian Information:

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	265-155-0	Present	Present	(9)-1689	KE-12543	Present	May be used as a single component chemical under an appropriate group standard.
Molybdenum disulfide	1317-33-5	215-263-9	Present	Present	(1)-481	KE-25440	Present	N/Av
Bentonite	1302-78-9	215-108-5	Present	Present	N/Av	KE-02119	Present	



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SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2018.
2. International Agency for Research on Cancer Monographs, searched 2018.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2018 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - March 2015 version.
6. California Proposition 65 List - November 23, 2018 version.
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.



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DISCLAIMER

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