

SAFETY DATA SHEET

"N" MOLY ASSEMBLY PASTE

Version: 3.0	Revision Date: 03/2015	MSDS Number: GHS-15015-NMAP	Date Completed: 07/2015
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SECTION 1. IDENTIFICATION

Product Name:	"N" MOLY ASSEMBLY PASTE
Manufacturer or supplier's details	
Company name of supplier:	JIT Silicones Plus
Address:	5 Industrial Park Drive Oakdale, PA 15071
Telephone:	855-548-7587
Emergency Telephone:	24 Hour Emergency Telephone: CHEMTREC: (800) 424-9300
Recommended use of the chemical and restrictions on use	
Recommended use:	Lubricant (not for incidental food contact or medical purposes)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:	Not a hazardous substance or mixture
GHS Label Element:	Symbol: None Signal Word: Warning Hazard statements: May be harmful if swallowed May cause eye irritation May cause skin irritation Non-flammable or combustible, but may burn if involved in a fire at extreme elevated temperatures. Wash hands thoroughly before using tobacco or other products intended to be burned and inhaled.
Precautionary Statements:	Use personal protective equipment as required. Wear safety glasses and gloves.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identify:	Common Names:	CAS Number:	Impurities:
Silica, Amorphous, fumed, crystal free 5-15%	Silica	112945-52-5	Less than 1%, not classifiable
Graphite, 20-35%	Graphite	7782-42-5	Less than 1%, not classifiable
Petroleum distillates, hydrotreated light paraffinic, 40-70%	Hydrotreated paraffinic mineral oil	64742-54-7	No information provided by manufacturer.
Zinc Oxide, 15-25%	Zinc	1314-13-2	Less than 1%, not classifiable
Molybdenum disulfide 30-50%	Molysulfide	1317-33-5	Less than 0.1%, not classifiable

SECTION 4. FIRST AID MEASURES

Eye Contact:	Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention. Obtain medical attention.
Skin Contact:	Wash affected area with soap and water. If signs/symptoms persist, get medical attention. No need for first aid is anticipated.
Inhalation:	If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.
Ingestion:	If swallowed, do not induce vomiting. If irritation or discomfort occurs, obtain medical assistance.

SECTION 5. FIRE-FIGHTING MEASURES

Autoignition Temperature:	>200°C
Flash Point:	>200°C
Flammable Limits (LEL):	Not determined
Flammable Limits (UEL):	Not determined
Suitable Extinguishing Media:	On large fires use dry chemical foam, or water spray. On small fires use carbon dioxide, dry chemical, or water spray. Water can be used to cool fire exposed containers.
Unsuitable Extinguishing Media:	None.
Specific hazards in case of fire:	Decomposes on heating and produces incompletely burned carbon compounds. Avoid reaction with oxidizers.

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Special protective equipment and precautions for fire-fighters:

No acute hazard. Move container from fire area, if possible. Avoid breathing vapors or dusts. Keep upwind. Use dry chemical foam or water spray on all fires. Use full firefighting gear (bunker gear). Any supplied-air respirator with full face piece and operated in a pressure-demand or other positive pressure mode in combination with a separate escape air supply. Use alert fire brigade and indicate hazard location. Wear breathing apparatus plus protective clothing. Cool fire exposed containers with water spray from a protected location. Do not approach containers suspected to be hot. If safe to do so, remove containers from path of fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Use appropriate personal protection. See Section 8.

Environmental precautions:

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Methods and materials for containment and cleaning up:

Observe precautions from other sections. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent. Seal the container.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin, inhalation of mist, or ingestion. See Section 8 for personal protection equipment. Practice good personal hygiene to prevent accidental ingestion after handling. Properly dispose of clothing that cannot be decontaminated. Wash hands thoroughly before using tobacco or other products intended to be burned or inhaled.

Conditions for safe storage, including any incompatibilities:

Store away from oxidizing materials. Store product in a closed container located in a dry area. Do not store in open, inadequate, or mislabeled packaging. Check that containers are clearly labeled. Use metal cans, metal drums, plastic, or lined fiber containers. Keep away from heat and flame.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:	Under most handling condition, this product will not generate mist or dust.
Engineering Controls:	In most conditions, no special local ventilation is needed. General ventilation recommended. If the product is atomized ventilation should be used.
Personal Protective Equipment (PPE):	
Eyes:	Safety glasses recommended.
Skin:	Impermeable gloves should be worn. Petroleum resistant elastomers are recommended.
Inhalation:	No respiratory protection required under most conditions. If concentrations exceed exposure limits, approved respiratory equipment must be used.

SECTION 9. CHEMICAL AND PHYSICAL PROPERTIES

Physical state:	Solid. Liquid may separate from product.
Color:	Grey/Black Grease
Odor:	None
Odor Threshold:	Not available
pH Value:	Not applicable
Melting Point:	>260°C
Freezing Point:	Becomes very stiff with decreasing temperature around -50°C
Initial Boiling Point:	>200°C
Flash Point:	>200°C COC (Base oil)
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Explosion limits:	Not available
Vapor pressure:	Negligible at 20°C
Vapor density:	>10 (Air = 1)

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Solubility:	Negligible
Partition coefficient:	Not available
Autoignition temperature:	Not available
Decomposition temperature:	Begins to oxidize at a slow rate at 125°C

SECTION 10. STABILITY AND REACTIVITY

Chemical stability:	Stable under ambient temperatures and pressures.
Possibility of hazardous reactions:	Can react with strong oxidizers Other hazardous reactions have not been identified. Otherwise will not react or polymerize.
Conditions to avoid:	No specific conditions to avoid have been identified.
Materials to avoid:	Oxidizers
Hazardous decomposition products:	Decomposes on heating and produces incompletely burned carbon compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Petroleum distillates, hydrotreated light paraffinic:

Acute oral toxicity: LD50 (Rat): >5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials
Acute inhalation toxicity: LC50 (Rat): 5.53 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
Remarks: Based on data from similar materials
Acute dermal toxicity: LD50 (Rabbit): >5,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

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Distillates (petroleum), solvent refined heavy paraffinic:

Acute oral toxicity: LD50 (Rat): >5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials
Acute inhalation toxicity: LC50 (Rat): 5.53 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
Remarks: Based on data from similar materials
Acute dermal toxicity: LD50 (Rabbit): >5,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

Routes of exposure; Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative
Remarks: Based on data from similar materials

Effects on fertility: Test Type: reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials
Effects on fetal development: Test Type: Embryo-fetal development
Species: Rat
Application Route: Skin contact
Result: negative
Remarks: Based on data from similar materials

Distillates (petroleum) solvent refined heavy paraffinic:

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

Zinc Oxide

No known chronic health effects: Not listed by IARC, NTP, OSHA, or EPA

Graphite:

Species: Rabbit

Method: OECD Test Guideline 404
Result: No skin irritation

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Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse

Result: negative

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

Silicon dioxide:

Acute oral toxicity: LD 50 (Rat): >3,300 mg/kg

Assessment: The substance or mixture has no acute oral toxicity

Remarks: Information taken from reference works and the literature.

Acute inhalation toxicity: LC50 (Rat): >2.08 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: Information taken from reference works and the literature.

Acute dermal toxicity: LD50 (Rabbit): > 5,000 MG/KG

Assessment: The substance or mixture has no acute dermal toxicity

Remarks: Information taken from reference works and the literature.

Skin corrosion/irritation

Not classified based on available information.

Ingredients:

Silicon dioxide:

Result: No skin irritation

Remarks: Information taken from reference works and the literature.

Serious eye damage/eye irritation

Not classified based on available information.

Ingredients:

Silicon dioxide:

Result: No eye irritation

Remarks: Information taken from reference works and the literature.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Ingredients:

Silicon dioxide:

Assessment: Does not cause skin sensitization.

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Test Type: Skin: test type not specified
Species: Guinea pig
Remarks: No known sensitizing effect.
Information taken from reference works and the literature.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

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/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Graphite:

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
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 bacteria: EC50 > 1,012.5 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Not expected to be harmful to aquatic organisms. Expected to be inherently biodegradable.

Zinc Oxide:

Zinc Oxide is not expected to produce toxic effects in fish.

Petroleum distillates, hydrotreated light paraffinic:

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h

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Remarks: Based on data from similar materials
Toxicity to algae: EC 50 (Pseudokirchneriella subcapitata (green algae)): > 100
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Remarks: Based on data from similar materials
Toxicity to bacteria: NOEC: > 1.93 mg/l
Exposure time: 10 min
Remarks: Based on data from similar materials

SECTION 13. DISPOSAL PROCEDURES

Waste treatment methods: Waste (substance and container material) shall be recycled/recovered or disposed of as applicable and in accordance with community (EU) and local legislation. Recycle wherever possible. Consult state land waste management authority for disposal. Bury at an approved site. Recycle containers if possible, or dispose of in an authorized landfill.

According to the European Waste Catalogue: Waste codes are not product specific but application specific. Waste codes should be assigned by the user based on the application in which the product is used.

For USA Disposal: Waste must be disposed of in accordance with federal, state, and local environment control regulations.

SECTION 14. TRANSPORT CONSIDERATIONS

Class or Type:

USDOT, IMO, ADR, RID, AND, IMDG, and IATA: Non-hazardous

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the mixture:

Other Information:

U.S. Regulatory Information:

TSCA Inventory Status:	Y
TSCA 12 (b) Export Notification:	Not listed
CERCLA Section 103 (40 CFR 302.4):	N
SARA Section 302 (40 CFR 355.30):	N
SARA Section 304 (40 CFR 355.40):	N
SARA Section 313 (40 CFR 372.65):	N

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OSHA Process Safety (29 CFR 1910.119): N
 SARA Hazard Categories, SARA Sections 311/312 (40 CFR 370.21) –
 Acute Hazard N
 Chronic Hazard N
 Fire Hazard N
 Reactivity Hazard: N
 Sudden Release Hazard N

State Regulations: Not on California Proposition 65 list. Does not contain any contaminants or by-products known in the State of California to cause cancer or reproductive toxicity.

Note – There are no known safety, health or environmental restrictions or prohibitions in any country where this product is produced, imported or marketed.

Chemical Inventories:

DSL (Canada)	All ingredients listed or exempt
EINECS (European Union)	All ingredients listed or exempt
ENCS/ISHL (Japan)	All ingredients listed or exempt
IECSC (Peoples Republic of China)	All ingredients listed or exempt
TSCA (United States of America)	All ingredients listed or exempt

SECTION 16. OTHER INFORMATION

Further Information

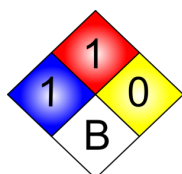
NFPA Hazard Classification:



HEALTH	1
FLAMMABILITY	1
Reactivity	0
Special Hazards	NONE

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency personnel to address the hazards that are presented by short-term, acute exposure to material under conditions of fire. Spill, or similar emergencies. Hazard rating are primarily based on inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification:



HEALTH	1
FLAMMABILITY	1
Reactivity	0
Protection	B (see PPE section)

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Hazardous Material Identification System (HMIS) hazard ratings are designed to inform employees of chemical hazards in the workplace. The ratings are based on inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations.

These data are offered in good faith as typical values and not as product specifications. 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.

Full text of other abbreviations	
NIOSH REL:	USA. NIOSH Recommended Exposure Limits
OSHA Z-3:	USA. Occupational Exposure Limits (OSHA) – Table Z-3 Mineral Dusts
US WEEL:	USA. Workplace Environmental Exposure Levels (WEEL)
DCC OEL / TWA	Time-weighted average
NIOSH REL / TWA	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA Z-3 / TWA	8-hour time-weighted average
US WEEL / TWA	8-hour TWA
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/

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