Safety Data Sheet according to Singapore Standard SS 586.

LOCTITE LB 8012 known as Loctite 8012 Moly EDFN_SFDN

SDS No. : 153750
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE LB 8012 known as Loctite 8012 Moly EDFN_SFDN

Other means of identification: LOCTITE LB 8012 454G EGFD/SFDN
Product code: IDH1680620
Recommended use of the chemical and restrictions on use

Intended use: Lubricant
Manufacturer/Importer/Distributor Representative Company

Henkel Singapore Pte Ltd
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119315 Singapore

Singapore

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Emergency Telephone for Chemical Accidents: FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call: +65 6424 7016

Section 2. Hazards identification

GHS Classification:

Substance or mixture is not classified as hazardous according to Globally Harmonized System(GHS).

GHS label elements:

Substance or mixture is not classified as hazardous according to Globally Harmonized System(GHS).

Section 3. Composition / information on ingredients

Substance or Mixture:
Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Molybdenum disulphide 1317-33-5	60- 100 %	
Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO 64742-52-5	1- 10 %	
Quartz (SiO2), <1% respirable 14808-60-7	1- 10 %	
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	0.1- 1 %	Reproductive toxicant. 2 H361 Target Organ Systemic Toxicant - Repeated exposure 2 H373

Section 4. First aid measures

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

Skin contact: Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact: Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion: Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

Section 5. Fire fighting measures

Suitable extinguishing media: Carbon dioxide, foam, powder

Improper extinguishing media: High pressure waterjet

Specific hazards arising from the chemical: In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

Special protection equipment and precautions for firefighters: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Hazardous combustion products: Oxides of carbon, oxides of nitrogen, irritating organic vapors.

Additional fire fighting advice: In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

Personal precautions: Avoid skin and eye contact.
Wear protective equipment.
Ensure adequate ventilation.
See advice in section 8

Environmental precautions: Do not empty into drains / surface water / ground water.

Clean-up methods: For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:

Use only in well-ventilated areas.
Vapours should be extracted to avoid inhalation.
Prolonged or repeated skin contact should be avoided
Avoid skin and eye contact.
See advice in section 8

Storage:

Store in a cool, well-ventilated place.
Keep away from heat and direct sunlight.
Refer to Technical Data Sheet.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

MOLYBDENUM, METAL AND INSOLUBLE COMPOUNDS, AS MO, INHALABLE FRACTION 1317-33-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH
MOLYBDENUM, INSOLUBLE COMPOUNDS, AS MO 1317-33-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	SG OEL
MOLYBDENUM, METAL AND INSOLUBLE COMPOUNDS, AS MO, RESPIRABLE FRACTION 1317-33-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
Molybdenum, soluble compounds, as Mo, respirable fraction 1317-33-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.5
	Remarks	ACGIH
MOLYBDENUM, SOLUBLE COMPOUNDS, AS MO 1317-33-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	SG OEL
Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction 64742-52-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	ACGIH
OIL MIST, MINERAL 64742-52-5	**Value type**	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	SG OEL
OIL MIST, MINERAL 64742-52-5	**Value type**	Short Term Exposure Limit (STEL):
	mg/m³	10
	Remarks	SG OEL
SILICA-CRYSTALLINE: QUARTZ, RESPIRABLE DUST 14808-60-7	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.1
	Remarks	SG OEL
Silica, crystalline-α-Quartz, respirable fraction 14808-60-7	**Value type**	Time Weighted Average (TWA):
	mg/m³	0.025
	Remarks	ACGIH

Respiratory protection: Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A (EN 14387)

Hand protection: Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

	nitrile rubber (NBR; >= 0.4 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.
Eye protection:	Wear protective glasses. Protective eye equipment should conform to EN166.
Body protection:	Wear suitable protective clothing. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.
Engineering controls:	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.
General protection and hygiene measures:	The workplace should be equipped with an emergency shower and eye-rinsing facility.
Hygienic measures:	Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Take off contaminated clothing and wash before reuse.

Section 9. Physical and chemical properties

Appearance:	Gray / Grey paste
Odor:	mild
Odor threshold (CA):	No data available.
pH:	Not applicable, Product is non-soluble (in water).
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	1.9614
Boiling point:	> 100 °C (> 212 °F)
Flash point:	160 °C (320 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	No data available.
Upper explosive limit:	No data available.
Vapor pressure: (; 20 °C (68 °F))	< 1 hPa
Vapor density:	> 1 Heavier than air.
Density:	1.9614 g/cm3
Solubility:	Slight
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	Not determined
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content: (2010/75/EC)	< 3 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Reacts with strong oxidants.

Chemical stability: Stable under recommended storage conditions.
Conditions to avoid: No decomposition if used according to specifications.
Hazardous decomposition products: Irritating organic vapours.

Section 11. Toxicological information

Symptoms of Overexposure**:** None known.

Acute oral toxicity:

Molybdenum disulphide 1317-33-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	not specified
Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO 64742-52-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Quartz (SiO2), <1% respirable 14808-60-7	Value type	LD50
	Value	> 5,050 mg/kg
	Species	rat
	Method	not specified
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO 64742-52-5	Value type	LC50
	Value	> 5.53 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Molybdenum disulphide 1317-33-5	Value type	LD50
	Value	> 16,000 mg/kg
	Species	rat
	Method	not specified
Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO 64742-52-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
Quartz (SiO2), <1% respirable 14808-60-7	Value type	LD50
	Value	> 2,000 mg/kg
	Species	not specified
	Method	not specified
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Result	mildly irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Repeated dose toxicity:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Result	NOAEL=25 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	M: 28 d / F: 53 ddaily
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Result	LOAEL=18 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	17 weeks
	Species	rat
	Method	OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)

Section 12. Ecological information

General ecological information: Do not empty into drains / surface water / ground water.

Toxicity:

Molybdenum disulphide 1317-33-5	Value type	LC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Molybdenum disulphide 1317-33-5	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Molybdenum disulphide 1317-33-5	Value type	EC50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO 64742-52-5	Value type	LC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Daphnia

64742-52-5	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO 64742-52-5	Value type	NOELR
	Value	100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Quartz (SiO2), <1% respirable 14808-60-7	Value type	LC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	not specified
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Quartz (SiO2), <1% respirable 14808-60-7	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Quartz (SiO2), <1% respirable 14808-60-7	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	not specified
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Quartz (SiO2), <1% respirable 14808-60-7	Value type	EC0
	Value	> 1,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	not specified
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Value type	LC50
	Value	> 100 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Value type	EC50
	Value	51 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Value type	EC50
	Value	> 100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	10 - 100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Value type	IC50
	Value	> 100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge, domestic
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Distillates (petroleum), hydrotreated heavy naphthenic <3%DMSO	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	6 %

64742-52-5	Method	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Bioaccumulative potential / Mobility in soil:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	Bioconcentration factor (BCF)	> 411 - 1,730
	Exposure time	42 d
	Species	Cyprinus carpio
	Temperature	24 °C
	Method	other guideline:
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene 68411-46-1	LogPow	> 5
	Temperature	25 °C
	Method	QSAR (Quantitative Structure Activity Relationship)

Section 13. Disposal considerations

Product

Method of disposal: Dispose of in accordance with local and national regulations.

Packaging

Disposal of uncleaned packages: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Section 14. Transport information

Road transport ADR:
Not dangerous goods

Railroad transport RID:
Not dangerous goods

Inland water transport ADN:
Not dangerous goods

Marine transport IMDG:
Not dangerous goods

Air transport IATA:
Not dangerous goods

Section 15. Regulatory information

Regulatory Information: Workplace Safety And Health Act (Chapter 354A, Section 40B) Workplace Safety And Health (Approved Codes of Practice) Notification 2020.
Workplace Safety And Health Act (Chapter 354A, Section 65) Workplace Safety And Health (General Provisions) (Amendment No.2) Regulations 2024

Global inventory status:

Regulatory list	Notification
TSCA	yes
DSL	yes
KECI (KR)	yes
AIIC	yes
IECSC	yes
TCSI	yes
PICCS (PH)	yes
EINECS	yes

Section 16. Other information

Disclaimer:

This Safety Data Sheet has been generated based on Workplace Safety And Health Act (Chapter 354A, Section 40B) Workplace Safety And Health (Approved Codes of Practice) Notification 2020 and Workplace Safety And Health Act (Chapter 354A, Section 65) Workplace Safety And Health (General Provisions) (Amendment No.2) Regulations 2024 only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
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