

Safety Data Sheet

Page 1 of 12

SDS No.: 449028

V001.9 Revision: 31.03.2020 printing date: 30.01.2021

LOCTITE LB ML-11 BO360ML SEA

Section 1. Identification of the substance/preparation and of the company/undertaking

Product name:

LOCTITE LB ML-11 BO360ML SEA

Other means of identification:

LOCTITE LB ML-11 BO360ML SEA

Product code:

IDH2065962

Recommended use of the chemical and restrictions on use

Intended use:

Lubricant

Identification of manufacturer, importer or distributor

Manufacturer: Henkel Loctite (China) Co. Ltd, No. 90 Zhu Jiang Road, Yantai Economic, Technological Development Zone, 264006 Shangdong Province, China Tel: +86-535-6399803 Fax: +86-535-6371999

Importer: Henkel Thailand Ltd The Offices at Centralworld, 35th Floor, 999/9 Rama 1 Rd, Kwang Patumwan, Khet Patumwan, Bangkok 10330, Thailand. Phone: +6622098000 Fax: +6622098008

E-mail address of person responsible for Safety Data Sheet:

ap-ua-psra.sea@henkel.com

Emergency information:

FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

Section 2. Hazards identification

GHS Classification:

<u>Hazard Class</u>	Hazard Category	Target organ
Flammable aerosols	Category 1	
Skin corrosion/irritation	Category 2	
Skin sensitizer	Category 1	
Specific target organ toxicity -	Category 3	Central nervous system
single exposure		
Aspiration hazard	Category 1	
Chronic hazards to the aquatic	Category 3	
environment		

GHS label elements:

Hazard pictogram:



Signal word:

Danger

Hazard statement:

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precaution:

Prevention:

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 dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves.

Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

P331 Do NOT induce vomiting.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3. Composition / information on ingredients

Substance or Mixture:

Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Distillates (petroleum), hydrotreated light 64742-47-8	30- 60 %	Flammable liquids 4 H227
		Skin corrosion/irritation 2
		H315
		Specific target organ toxicity - single exposure 3
		H336
		Aspiration hazard 1
		H304
Petroleum gases, liquefied	30- 60 %	Flammable gases 1
68476-85-7		H220
		Gases under pressure
Distillates (petroleum), hydrotreated heavy paraffinic,	1- 10 %	Aspiration hazard 1
<3% DMSO, <20.5mm²/sec (not cmr) 64742-54-7		H304
Sulfonic acids, petroleum, calcium salts	1- 10 %	Skin sensitizer 1
61789-86-4		H317
		Chronic hazards to the aquatic environment 4
		H413
Limonene D	0.1- 1 %	Flammable liquids 3
5989-27-5		H226
		Acute toxicity 5; Oral
		H303
		Skin corrosion/irritation 2
		H315
		Skin sensitizer 1
		H317
		Aspiration hazard 1
		H304
		Acute hazards to the aquatic environment 1 H400
		Chronic hazards to the aquatic environment 1 H410

Section 4. First aid measures

Inhalation:

Fresh air, consult doctor.

Seek medical attention from a specialist.

Skin contact:

Rinse with running water and soap.

Remove contaminated clothes.

Get immediate medical attention.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.

Ingestion:

Seek medical advice.

Do not induce vomiting.

SDS No.: 449028

V001.9

LOCTITE LB ML-11 BO360ML SEA

Section 5. Fire fighting measures

Suitable extinguishing media:

Water spray (fog), foam, dry chemical or carbon dioxide.

Alcohol foam.

Sand.

Specific hazards arising from the chemical:

Fire hazard when exposed to heat or flame.

Special protection equipment and precautions for firefighters:

Wear self-contained breathing apparatus.

Wear full protective clothing.

Hazardous combustion products:

Toxic and irritating vapors.

Section 6. Accidental release measures

Personal precautions:

Ensure adequate ventilation.

Wear protective equipment.

Keep away from sources of ignition.

Don't breathe vapours or aerosole.

Remove sources of ignition.

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.

Section 7. Handling and storage

Handling

Keep container tightly sealed.

Ensure adequate ventilation.

Keep away from sources of ignition - no smoking.

Avoid skin and eye contact.

Storage:

Store in a cool, dry place.

Keep container in a well ventilated place.

Keep away from sources of ignition and naked flames.

Keep away from heat and direct sunlight.

Avoid static electricity.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

L.P.G. (LIQUIFIED PETROLEUM GAS) 68476-85-7	Value type	Time Weighted Average (TWA):
	ppm	1,000
	Remarks	TH OEL
L.P.G (LIQUEFIED PETROLEUM GAS) 68476-85-7	Remarks	ACGIH D: Simple asphyxiant, EX: Explosion hazard
Distillates (petroleum), hydrotreated heavy paraffinic, <3% DMSO, <20.5mm²/sec (not cmr) 64742-54-7	Value type	Time Weighted Average (TWA):
	mg/m ³	5
Distillates (petroleum), hydrotreated heavy paraffinic, <3% DMSO, <20.5mm²/sec (not cmr) 64742-54-7	Value type	Short Term Exposure Limit (STEL):
	mg/m ³	10

Respiratory protection:

Suitable breathing mask.

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 adequate local exhaust ventilation to maintain worker exposure below exposure limits.

General protection and hygiene measures:

Eyewash fountains and emergency showers are required.

Hygienic measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Section 9. Physical and chemical properties

Appearance: light brown aerosol

Odor: Petroleum
Odor threshold (CA): No data available.
pH: Not available.

Melting point / freezing point: $-100 - -50 \, ^{\circ}\text{C} \, (-148 - -58 \, ^{\circ}\text{F})$

SDS No.: 449028 V001.9

LOCTITE LB ML-11 BO360ML SEA

Specific gravity: 0.80 - 0.82

Boiling point: -40 - -5 °C (-40 - 23 °F) **Flash point:** -105 - -60 °C (-157 - -76 °F)

Evaporation rate: Not available.

Flammability (solid, gas): No data available.

Lower explosive limit: 0.7 %(V) **Upper explosive limit:** 9.5 %(V)

Vapor pressure:

Vapor density:
No data available.

Density:
No data available.
Solubility:
practically insoluble
Partition coefficient: nNo data available.

 ${\bf octanol/water:}$

Auto ignition:No data available.Decomposition temperature:No data available.Viscosity:No data available.

VOC content: No data available.

Section 10. Stability and reactivity

Reactivity/Incompatible materials:

None if used for intended purpose.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

May occur when exposed to high heat.

Conditions to avoid:

Avoid heating.

Protect from direct sunlight.

Heat, flames, sparks and other sources of ignition.

Avoid static discharge.

Hazardous decomposition products:

Irritating and toxic gases or fumes may be released during a fire.

Section 11. Toxicological information

Symptoms of Overexposure: None known.

Acute oral toxicity:

Distillates (petroleum),	Value type	LD50
hydrotreated light	Value	> 5,000 mg/kg
64742-47-8	Species	rat
	Method	not specified
Distillates (petroleum),	Value type	LD50
hydrotreated heavy paraffinic, <3%	Value	> 5,000 mg/kg
DMSO, <20.5mm ² /sec (not cmr)	Species	rat
64742-54-7	Method	OECD Guideline 401 (Acute Oral Toxicity)
Sulfonic acids, petroleum, calcium	Value type	LD50
salts	Value	> 5,000 mg/kg
61789-86-4	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Limonene D	Value type	LD50
5989-27-5	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 423 (Acute Oral toxicity)
Limonene D	Value type	Acute toxicity estimate (ATE)
5989-27-5	Value	2,500 mg/kg
	Species	
	Method	Expert judgement

Acute inhalative toxicity:

Distillates (petroleum),	Value type	LC50
hydrotreated light	Value	> 5.3 mg/l
64742-47-8	Exposure time	4 h
	Species	rat
	Method	not specified
Petroleum gases, liquefied	Value type	LC50
68476-85-7	Value	539600 ppm
	Exposure time	2 h
	Species	mouse
	Method	not specified
Distillates (petroleum),	Value type	LC50
hydrotreated heavy paraffinic, <3%	Value	> 5.53 mg/l
DMSO, <20.5mm ² /sec (not cmr)	Exposure time	4 h
64742-54-7	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Distillates (petroleum),	Value type	LD50	
hydrotreated light	Value	> 2,000 mg/kg	
64742-47-8	Species	rabbit	
	Method	EPA OTS 798.1100 (Acute Dermal Toxicity)	
Distillates (petroleum),	Value type	LD50	
hydrotreated heavy paraffinic, <3%	Value	> 5,000 mg/kg	
DMSO, <20.5mm ² /sec (not cmr)	Species	rabbit	
64742-54-7	Method	OECD Guideline 402 (Acute Dermal Toxicity)	
Sulfonic acids, petroleum, calcium	Value type	LD50	
salts	Value	> 5,000 mg/kg	
	• • • • • • • • • • • • • • • • • • • •	> 5,000 mg/kg rabbit	
salts	Value		
salts	Value Species	rabbit	
salts 61789-86-4	Value Species Method	rabbit OECD Guideline 402 (Acute Dermal Toxicity)	
salts 61789-86-4 Limonene D	Value Species Method Value type	rabbit OECD Guideline 402 (Acute Dermal Toxicity) LD50	

Skin corrosion/irritation:

Distillates (petroleum), hydrotreated light	Result	irritating
64742-47-8	Exposure time	
	Species	rabbit
	Method	EPA Guideline
Distillates (petroleum), hydrotreated	Result	not irritating
heavy paraffinic, <3% DMSO,	Exposure time	24 h
<20.5mm ² /sec (not cmr)	Species	rabbit
64742-54-7	Method	not specified
Sulfonic acids, petroleum, calcium salts	Result	not irritating
61789-86-4	Exposure time	4 h
	Species	rabbit
	Method	EPA OPPTS 870.2500 (Acute Dermal Irritation)
Limonene D	Result	moderately irritating
5989-27-5	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Distillates (petroleum), hydrotreated	Result	not irritating
heavy paraffinic, <3% DMSO,	Exposure time	
<20.5mm ² /sec (not cmr)	Species	rabbit
64742-54-7	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Sulfonic acids, petroleum, calcium salts	Result	not irritating
61789-86-4	Exposure time	
	Species	rabbit
	Method	EPA OPPTS 870.2400 (Acute Eye Irritation)

Respiratory or skin sensitization:

Distillates (petroleum),	Result	not sensitising
hydrotreated heavy paraffinic, <3%	Test type	Buehler test
DMSO, <20.5mm ² /sec (not cmr)	Species	guinea pig
64742-54-7	Method	OECD Guideline 406 (Skin Sensitisation)
Sulfonic acids, petroleum, calcium	Result	sensitising
salts	Test type	Mouse local lymphnode assay (LLNA)
61789-86-4	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Limonene D	Result	sensitising
5989-27-5	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Petroleum gases, liquefied	Result	negative
68476-85-7	Type of study / Route of administration	inhalation: gas
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte
		Micronucleus Test)
Distillates (petroleum),	Result	negative
hydrotreated heavy paraffinic,	Type of study / Route of administration	in vitro mammalian chromosome aberration test
<3% DMSO, <20.5mm ² /sec (not	Metabolic activation / Exposure time	with and without
cmr)	Method	OECD Guideline 473 (In vitro Mammalian Chromosome
64742-54-7		Aberration Test)
Sulfonic acids, petroleum,	Result	negative
calcium salts	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
61789-86-4	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Sulfonic acids, petroleum,	Result	negative
calcium salts	Type of study / Route of administration	in vitro mammalian chromosome aberration test
61789-86-4	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome
		Aberration Test)
Sulfonic acids, petroleum,	Result	negative
calcium salts	Type of study / Route of administration	mammalian cell gene mutation assay
61789-86-4	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene
		Mutation Test)
Sulfonic acids, petroleum,	Result	negative
calcium salts	Type of study / Route of administration	oral: gavage
61789-86-4	Metabolic activation / Exposure time	
	Species	mouse
	Method	OECD Guideline 474 (Mammalian Erythrocyte
		Micronucleus Test)

Repeated dose toxicity:

Petroleum gases, liquefied	Result	NOAEL=10000 ppm
68476-85-7	Route of application	inhalation: gas
	Exposure time / Frequency of treatment	14 w6 h/d, 5 d/w
	Species	rat
	Method	equivalent or similar to OECD Guideline 413 (Subchronic
		Inhalation Toxicity: 90-Day)
Sulfonic acids, petroleum,	Result	NOAEL=1,000 mg/kg
calcium salts	Route of application	oral: gavage
61789-86-4	Exposure time / Frequency of treatment	28 ddaily
	Species	rat
	Method	OECD Guideline 407 (Repeated Dose 28-Day Oral
		Toxicity in Rodents)

Section 12. Ecological information

General ecological information: Do not empty into drains, soil or bodies of water.

Ecotoxicity: Harmful to aquatic life with long lasting effects.

Toxicity:

hydrotreated light 64742-47-8	Value Acute Toxicity Study Exposure time	> 1,000 mg/l Fish
Distillates (natural:)	Exposure time	
Distillator (natural:)		96 h
Distillator (noturals)	Species	Oncorhynchus mykiss
Distillator (matuals)	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Distillates (petroleum),	Value type	EC50
hydrotreated light	Value	> 1,000 mg/l
64742-47-8	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Distillates (petroleum),	Value type	EC50
hydrotreated light	Value	> 1,000 mg/l
64742-47-8	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Distillates (petroleum),	Value type	LL50
hydrotreated heavy paraffinic, <3%	Value	> 100 mg/l
DMSO, <20.5mm ² /sec (not cmr)	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Distillates (petroleum),	Value type	EL50
hydrotreated heavy paraffinic, <3%	• • •	> 10,000 mg/l
DMSO, <20.5mm²/sec (not cmr)	Value	, 0
64742-54-7	Acute Toxicity Study	Daphnia
04/42-34-7	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Distillates (petroleum),	Value type	EL50
hydrotreated heavy paraffinic, <3%	Value	> 100 mg/l
DMSO, <20.5mm ² /sec (not cmr)	Acute Toxicity Study	Algae
64742-54-7	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	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)
Limonene D	Value type	LC50
5989-27-5	Value	0.702 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Limonene D	Value type	EC50
5989-27-5	Value	0.577 mg/l
3707-21-3	Acute Toxicity Study	Daphnia
	Exposure time	48 h
		Daphnia magna
	Species Method	1 0
I : D		OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Limonene D	Value type	EC50
5989-27-5	Value	0.32 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC10
	Value	0.174 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	n ·	Described and the section of the sec
	Species	Pseudokirchneriella subcapitata

Limonene D	Value type	EC10
5989-27-5	Value	18 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge of a predominantly domestic sewage
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Distillates (petroleum),	Result	not readily biodegradable.
hydrotreated heavy paraffinic, <3% DMSO, <20.5mm²/sec (not	Route of application	aerobic
	Degradability	31 %
cmr)	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry
64742-54-7		Test)
Sulfonic acids, petroleum,	Result	
calcium salts 61789-86-4	Route of application	aerobic
	Degradability	8.6 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry
		Test)
Limonene D	Result	readily biodegradable
5989-27-5	Route of application	aerobic
	Degradability	80 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential / Mobility in soil:

Sulfonic acids, petroleum,	LogPow	23.21
calcium salts	Temperature	
61789-86-4	Method	QSAR (Quantitative Structure Activity Relationship)
Limonene D	LogPow	4.57
5989-27-5	Temperature	
	Method	not specified

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:

Class: 2

Packing group: Classification code: 5F

Hazard ident. number:

UN no.: 1950 Label: 2.1

Technical name: AEROSOLS

5F

Railroad transport RID:

Class: 2

Packing group:

Classification code: 5F
Hazard ident. number: 23
UN no.: 1950
Label: 2.1

Technical name: AEROSOLS

Inland water transport ADN:

Class: 2

Packing group: Classification code:

Hazard ident. number:

UN no.: 1950 Label: 2.1

Technical name: AEROSOLS

Marine transport IMDG:

Class: 2.1

Packing group:

UN no.: 1950 Label: 2.1 EmS: F-D ,S-U

Seawater pollutant:

Proper shipping name: AEROSOLS

Air transport IATA:

Class: 2.1

Packing group:

Packaging instructions (passenger): 203
Packaging instructions (cargo): 203
UN no.: 1950
Label: 2.1

Proper shipping name: Aerosols, flammable

Section 15. Regulatory information

Regulatory Information:

Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

Global inventory status:

Regulatory list Notification **TSCA** yes DSL yes KECI (KR) yes ENCS (JP) yes ISHL (JP) yes **IECSC** yes AICS yes yes TCSI PICCS (PH) yes CH INV yes **EINECS** yes

Section 16. Other information

Disclaimer:

V001.9

This Safety Data Sheet has been generated based on Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555 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.

Dear Customer,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).