



Safety Data Sheet according to GB/T 16483-2008

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LOCTITE LB ML-11 BO360ML SEA

SDS No. : 449028

V001.9

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

Product name: LOCTITE LB ML-11 BO360ML SEA

Intended use: Lubricant

Manufacturer/Importer/Distributor Representative Company

Henkel Adhesive Technology (Shanghai) Co., Ltd.
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Revision date: 14.12.2022

Emergency information: +86 21 2891 8311 (24h).

2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 (General rule for classification and hazard communication of chemicals):

<u>Hazard Class</u>	<u>Hazard Category</u>
Aerosol	Category 1
Skin sensitizer	Category 1
Aspiration hazard	Category 1
Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 2

Label elements according to GB 15258-2009 (General rules for preparation of precautionary label for chemicals):

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. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.
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. 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. 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. P391 Collect spillage.
Storage:	P405 Store locked up. 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.

3. Composition / information on ingredients

General description: Mixture
Declaration of the ingredients according to GB 13690-2009:

Hazard component CAS-No.	Content	GHS Classification
Distillates (petroleum), hydrotreated light 64742-47-8	30- < 50 %	Flammable liquids 4 H227 Aspiration hazard 1 H304 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
Surfactant Proprietary	1- < 2.5 %	Skin sensitizer 1B H317
Limonene D 5989-27-5	0.25- < 1 %	Flammable liquids 3 H226 Skin corrosion/irritation 2 H315 Skin sensitizer 1B H317 Aspiration hazard 1 H304 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 3 H412

Only hazardous ingredients for which a classification according to GB 13690-2009 is already available are displayed in this table. For full text of the Hazard statements see section 16 "Other information".

4. First aid measures

Skin contact: Rinse with running water and soap.
Remove contaminated clothes.
Seek medical attention immediately.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical attention immediately.

Inhalation: Fresh air, consult doctor.
Seek medical attention from a specialist.
Keep warm and in a quiet place.

Ingestion: Seek medical advice.
Do not induce vomiting.

5. Fire fighting measures

Hazardous combustion products: Toxic and irritating vapors.

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.
Alcohol foam.
Sand.

Notice and measures for firing fighting: Wear self-contained breathing apparatus.
Wear full protective clothing.

6. Accidental release measures

Emergency measures: Ensure adequate ventilation.
Do not allow to enter the ground / soil.
Wear protective equipment.
Do not allow to enter in surface / ground water.
Keep away from sources of ignition.
Don't breathe vapours or aerosole.
Remove sources of ignition.

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.

7. Handling and storage

Notice for handling: Keep container tightly sealed.
Ensure adequate ventilation.
No smoking.

Notice for storage: Avoid skin and eye contact.
Refer to Technical Data Sheet

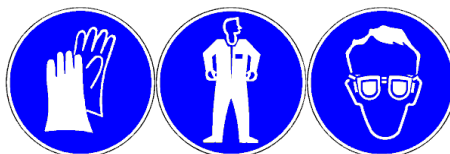
8. Exposure controls / personal protection

Hazardous components	GBZ 2.1-2019	ACGIH	NIOSH	OSHA
Petroleum gases, liquefied	1,000 mg/m3PC-TWA 1,500 mg/m3PC-STEL			none

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

- Respiratory protection:** Suitable breathing mask.
- Eye protection:** Wear protective glasses.
The workplace should be equipped with an emergency shower and eye-rinsing facility.
- Body protection:** Wear suitable protective clothing.
- Hand protection:** Suitable protective gloves.
- Other protection:** The selection of PPE shall at least compliant with "Law of the People's Republic of China on Prevention and Control of Occupational Diseases" and "Code of practice for selection of personal protective equipments" (GB/T 11651-2008).

Pictograms for recommended PPE:



9. Physical and chemical properties

Physical state:	aerosol	Appearance:	light brown
Evaporation rate:	Not available.	Odor:	Petroleum
pH:	Not available.	Melting point:	< 0 °C (< 32 °F)
Boiling point:	-40 - -5 °C (-40 - 23 °F)	Density:	0.80 - 0.82 g/cm ³
Vapor density:	Not available.	Vapor pressure:	Not available.
Flash point:	-105 - -60 °C (-157 - -76 °F)	Ignition temperature:	Not available.
Lower explosive limit:	Not available.	Upper explosive limit:	Not available.
Solubility in water	practically insoluble	Viscosity:	Not determined
Auto-ignition temperature:	Not available.	Flammability:	Not available.
Octanol / water distribution coefficient:	Not available.	Decomposition temperature:	Not available.
VOC:	, Out of China VOC standards Scope		

10. Stability and reactivity

- Stability:** Stable under recommended storage conditions.
- Conditions to avoid:** Avoid heating.
Protect from direct sunlight.
Heat, flames, sparks and other sources of ignition.
Avoid static discharge.
- Incompatible products:** No data available.
- Decomposition products:** Irritating and toxic gases or fumes may be released during a fire.
- Hazardous polymerization:** May occur when exposed to high heat.

11. Toxicological information

- General toxicological information:**
No laboratory animal data available.

Carcinogenicity

No data available.

Other remarks:

Not available.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Distillates (petroleum), hydrotreated light 64742-47-8	LD50 LC50 LD50	> 5,000 mg/kg > 5.3 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	OECD Guideline 420 (Acute Oral Toxicity) not specified OECD Guideline 402 (Acute Dermal Toxicity)
Surfactant Proprietary	LD50 LD50	> 5,000 mg/kg > 5,000 mg/kg	oral dermal		rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Limonene D 5989-27-5	LD50 LD50	> 5,000 mg/kg > 5,000 mg/kg	oral dermal		rat rabbit	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Distillates (petroleum), hydrotreated light 64742-47-8	slightly irritating		rabbit	Expert judgement
Surfactant Proprietary	not irritating	4 h	rabbit	EPA OPPTS 870.2500 (Acute Dermal Irritation)
Limonene D 5989-27-5	moderately irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Distillates (petroleum), hydrotreated light 64742-47-8	not irritating		rabbit	EPA OTS 798.4500 (Acute Eye Irritation)
Surfactant Proprietary	not irritating		rabbit	EPA OPPTS 870.2400 (Acute Eye Irritation)
Limonene D 5989-27-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Distillates (petroleum), hydrotreated light 64742-47-8	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Surfactant Proprietary	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Limonene D 5989-27-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Distillates (petroleum), hydrotreated light 64742-47-8	negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
Distillates (petroleum), hydrotreated light 64742-47-8	negative	intraperitoneal		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Surfactant Proprietary	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Surfactant Proprietary	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Limonene D 5989-27-5	negative negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay sister chromatid exchange assay in mammalian cells	with and without with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) equivalent or similar to OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
Limonene D 5989-27-5	negative	oral: gavage		rat	not specified

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Surfactant Proprietary	NOAEL=1,000 mg/kg	oral: gavage	28 ddaily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Limonene D 5989-27-5	NOAEL=825 mg/kg	oral: gavage	16 d5 d/w	rat	equivalent or similar to OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

12. Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

Ecotoxicity:

No data available.

Other adverse effects:
Not available.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Distillates (petroleum), hydrotreated light 64742-47-8	LL50	> 2 - 5 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Distillates (petroleum), hydrotreated light 64742-47-8	EL50	1.4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Distillates (petroleum), hydrotreated light 64742-47-8	EL50	8.3 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Distillates (petroleum), hydrotreated light 64742-47-8	NOELR	4 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Surfactant Proprietary	LL50	> 1,000 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Surfactant Proprietary	EC50	> 1,000 mg/l	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Surfactant Proprietary	NOELR	100 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Surfactant Proprietary	EL50	> 100 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Surfactant Proprietary	EC50	> 10,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Limonene D 5989-27-5	LC50	0.702 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Limonene D 5989-27-5	LC10	0.32 mg/l	Fish	8 d	Pimephales promelas	OECD Guideline 212 (Fish, Short- term Toxicity Test on Embryo and Sac-Fry Stages)
Limonene D 5989-27-5	EC50	0.577 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Limonene D 5989-27-5	EC50	0.32 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Limonene D 5989-27-5	EC10	0.174 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Limonene D 5989-27-5	EC10	18 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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Distillates (petroleum), hydrotreated light 64742-47-8	readily biodegradable	aerobic	61 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Surfactant Proprietary	not readily biodegradable.	aerobic	8 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Limonene D 5989-27-5	readily biodegradable	aerobic	71.4 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Distillates (petroleum), hydrotreated light 64742-47-8	> 4					QSAR (Quantitative Structure Activity Relationship)
Surfactant Proprietary	22.12				25 °C	QSAR (Quantitative Structure Activity Relationship)
Limonene D 5989-27-5	4.57					not specified

13. Disposal considerations

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

Disposal of uncleaned packages: After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

14. Transport information

Road transport CN_DG:

Class: 2.1
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: Marine pollutant
Proper shipping name: AEROSOLS (Distillates (Petroleum), hydrotreated light)

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

Notice For Transportation:

Transport according to local and national regulations. Ensure containers will not leak, collapse, or being damaged when transported. DO NOT transport with incompatible materials. Transportation vehicle should be equipped with right fire-fighting equipment in case of emergency. Avoid solarization, drenched and high temperature when transported.

15. Regulatory information

The following laws and regulations lay down provisions in terms of chemicals safety use, storage, transportation, loading/unloading, classification as well as symbol.

“Law of the People's Republic of China on Work Safety” (Adopted by the 28th meeting of 9th NPC standing committee on 29th June 2002, revised by 29th meeting of 13nd NPC standing committee on 10th Jun 2021).

Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases” (Adopted by the 24th meeting of 9th NPC standing committee on 27th October 2001, revised by 7th meeting of 13rd NPC standing committee on 29th Dec 2018).

“Law of the People's Republic of China on environmental protection” (Adopted by 11st meeting of 7th NPC standing committee on 26th December 1989, revised by 8th meeting of 12nd NPC standing committee on 24th Apr 2014).

“Regulation on the Safety Management of Hazardous Chemicals” (Adopted by 32nd State Council executive meeting on 4th December 2013).

“Regulations on License to Work Safety” (Adopted by 54th State Council executive meeting on 29th July 2014).

China Inventory of Existing Chemicals:

All components are listed or are exempt from Inventory of Existing Chemical Substances in China.

16. Other information

Issue date: 07.08.2024
Issue department: Product Safety & Regulatory Affairs for China

Disclaimer:

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Others:

The full text of all abbreviations indicated by codes in this safety data sheet section 3 are as follows:

H226 Flammable liquid and vapour.
H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.