Safety Data Sheet

LOCTITE LB 8101 400ML EFAT

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

Product name:
LOCTITE LB 8101 400ML EFAT

Other means of identification:
LOCTITE LB 8101 400ML EFAT

Product code:
IDH1727644

Recommended use of the chemical and restrictions on use

Intended use:
Lubricant

Manufacturer/Importer/Distributor Representative Company

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

Section 2. Hazards identification

GHS Classification:

Hazard Class	Hazard Category	Target organ
Flammable aerosols	Category 1	
Specific target organ toxicity - single exposure	Category 3	Central nervous system
Chronic hazards to the aquatic environment	Category 3	

GHS label elements:

Hazard pictogram:



Signal word:
Danger

Hazard statement:
H222 Extremely flammable aerosol.
H229 Pressurized container: May burst if heated.
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.
P273 Avoid release to the environment.
Response:
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.
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.DEGREE.C/122.DEGREE.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
butane 106-97-8	30- 60 %	Flammable gases 1 H220 Gases under pressure Compr. Gas H280 Acute hazards to the aquatic environment 2 H401
pentane 109-66-0	10- 30 %	Flammable liquids 2 H225 Specific target organ toxicity - single exposure 3 H336 Aspiration hazard 1 H304 Acute hazards to the aquatic environment 2 H401 Chronic hazards to the aquatic environment 2 H411
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	10- 30 %	Flammable liquids 3 H226 Skin corrosion/irritation 3 H316 Specific target organ toxicity - single exposure 3 H336 Aspiration hazard 1 H304
propane 74-98-6	1- 10 %	Flammable gases 1 H220 Gases under pressure
Isobutane 75-28-5	1- 10 %	Flammable gases 1 H220 Gases under pressure H280

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 from a specialist.

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

Indication of immediate medical attention and special treatment needed:
See section: Description of first aid measures

Section 5. Fire fighting measures

Suitable extinguishing media:
Carbon dioxide, foam, powder

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

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

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:
Keep away from sources of ignition - no smoking.
Vapours should be extracted to avoid inhalation.
Use only in well-ventilated areas.
Avoid skin and eye contact.
See advice in section 8

Storage:
Store in a cool, dry place.
Do not store near sources of heat or ignition, or reactive materials.
Refer to Technical Data Sheet

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

Butane, all isomers 106-97-8	**Value type**	Short Term Exposure Limit (STEL):
	ppm	1,000
	Remarks	ACGIH EX: Explosion hazard
PENTANE, ALL ISOMERS 109-66-0	**Value type**	Time Weighted Average (TWA):
	ppm	1,000
	Remarks	ACGIH
PENTANE 109-66-0	**Value type**	Time Weighted Average (TWA):
	ppm	1,000
	Remarks	TH OEL
PROPANE 74-98-6	**Remarks**	ACGIH D: Simple asphyxiant, EX: Explosion hazard

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:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Body protection:
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:	Amber aerosol
Odor:	characteristic
Odor threshold (CA):	No data available.
pH:	Not applicable, Product is non-polar/aprotic.
Melting point / freezing point:	Not applicable, Product is a liquid
Specific gravity:	No data available.
Boiling point:	-44.5 °C (-48.1 °F)
Flash point:	-97.0 °C (-142.6 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	0.6 %(V)
Upper explosive limit:	10.9 %(V)
Vapor pressure: (; 20 °C (68 °F))	2800 hPa
Vapor density:	Not available.
Density:	0.648 g/cm3
Solubility:	Not miscible
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available. (; Method: no method / method unknown)
VOC content: (2010/75/EC)	81.9 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:
None known
Chemical stability:
Stable under recommended storage conditions.
Conditions to avoid:
No decomposition if used according to specifications.
Hazardous decomposition products:
None if used for intended purpose.

Section 11. Toxicological information

Symptoms of Overexposure**:** Vapors may cause drowsiness and dizziness.
Repeated exposure may cause skin dryness or cracking.
Prolonged or repeated contact may cause eye irritation.

Acute oral toxicity:

pentane 109-66-0	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

butane 106-97-8	Value type	LC50
	Value	274200 ppm
	Exposure time	4 h
	Species	rat
	Method	not specified
pentane 109-66-0	Value type	LC50
	Value	21000 ppm
	Exposure time	4 h
	Species	rat
	Method	not specified
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Value type	LC50
	Value	> 5.6 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)
propane 74-98-6	Value type	LC50
	Value	> 800000 ppm
	Exposure time	15 min
	Species	rat
	Method	not specified
Isobutane 75-28-5	Value type	LC50
	Value	260200 ppm
	Exposure time	4 h
	Species	mouse
	Method	not specified

Acute dermal toxicity:

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

pentane 109-66-0	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Result	mildly irritating
	Exposure time	4 h
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

pentane 109-66-0	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

pentane 109-66-0	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

butane 106-97-8	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
butane 106-97-8	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
butane 106-97-8	Result	negative
	Type of study / Route of administration	inhalation: gas
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
pentane 109-66-0	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
pentane 109-66-0	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	EU Method B.10 (Mutagenicity)
pentane 109-66-0	Result	negative
	Type of study / Route of administration	inhalation: vapour
	Metabolic activation / Exposure time	
	Species	rat
	Method	EU Method B.12 (Mutagenicity
propane 74-98-6	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
propane 74-98-6	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
propane 74-98-6	Result	negative
	Type of study / Route of administration	
	Metabolic activation / Exposure time	
	Species	Drosophila melanogaster
	Method	not specified
propane 74-98-6	Result	negative
	Type of study / Route of administration	inhalation: gas
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Isobutane 75-28-5	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isobutane 75-28-5	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Isobutane 75-28-5	Result	negative
	Type of study / Route of administration	oral: feed
	Metabolic activation / Exposure time	
	Species	Drosophila melanogaster
	Method	not specified
Isobutane 75-28-5	Result	negative
	Type of study / Route of administration	inhalation: gas
	Metabolic activation / Exposure time	
	Species	rat
	Method	OECD Guideline 474 (Mammalian Erythrocyte

		Micronucleus Test)

Repeated dose toxicity:

butane 106-97-8	Result	
	Route of application	inhalation: gas
	Exposure time / Frequency of treatment	28 d6 h/d
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
pentane 109-66-0	Result	
	Route of application	inhalation: gas
	Exposure time / Frequency of treatment	13 w6 h/d, 5 d/w
	Species	rat
	Method	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
propane 74-98-6	Result	
	Route of application	inhalation: gas
	Exposure time / Frequency of treatment	28 d6 h/d, 7 d/w
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Isobutane 75-28-5	Result	NOAEL=9000 ppm
	Route of application	inhalation: gas
	Exposure time / Frequency of treatment	28 d6 h/d, 7 d/w
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Section 12. Ecological information

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

Ecotoxicity: H412 Harmful to aquatic life with long lasting effects.

Toxicity:

butane 106-97-8	Value type	LC50
	Value	27.98 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	
	Method	not specified
butane 106-97-8	Value type	EC50
	Value	14.22 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	
	Method	not specified
butane 106-97-8	Value type	EC50
	Value	7.71 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	
	Method	not specified
pentane 109-66-0	Value type	EC50
	Value	9.74 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Value type	LL50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Value type	EL50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Value type	EL50
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOELR
	Value	Toxicity > Water solubility
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

butane 106-97-8	Result	readily biodegradable
	Route of application	aerobic
	Degradability	> 60 %
	Method	OECD 301 A - F
pentane 109-66-0	Result	readily biodegradable
	Route of application	aerobic
	Degradability	87 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics 64742-48-9	Result	readily biodegradable
	Route of application	aerobic
	Degradability	80 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
propane 74-98-6	Result	readily biodegradable
	Route of application	aerobic
	Degradability	> 60 %
	Method	OECD 301 A - F
Isobutane 75-28-5	Result	readily biodegradable
	Route of application	aerobic
	Degradability	71.43 %
	Method	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

Bioaccumulative potential / Mobility in soil:

butane 106-97-8	LogPow	2.31
	Temperature	20 °C
	Method	other (measured)
pentane 109-66-0	LogPow	3.45
	Temperature	25 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Isobutane 75-28-5	LogPow	2.88
	Temperature	20 °C
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

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

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:	5F
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
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 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.
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