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

Product name:
LOCTITE SF 770 BO10G IT/ES

Other means of identification:
LOCTITE SF 770 BO10G IT/ES

Product code:
IDH88111

Recommended use of the chemical and restrictions on use

Intended use:
Primer

Identification of manufacturer, importer or distributor

Manufacturer: Henkel Corporation, Seabrook, One Dexter Drive, Seabrook, NH 03874-4018, United States. Phone: 001 603 474 5541 Fax: 001 603 474 2709

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 Telephone for Chemical Accidents:
FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call: +662 209 8008

Section 2. Hazards identification

GHS Classification:

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

GHS label elements:

Hazard pictogram:



Signal word:
Danger

Hazard statement:
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H410 Very toxic 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.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 Collect spillage.
Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
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
n-Heptane 142-82-5	60- 100 %	Flammable liquids 2 H225 Skin corrosion/irritation 2 H315 Specific target organ toxicity - single exposure 3 H336 Aspiration hazard 1 H304 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
Methylcyclohexane 108-87-2	0.1- 1 %	Flammable liquids 2 H225 Skin corrosion/irritation 2 H315 Specific target organ toxicity - single exposure 3 H336 Aspiration hazard 1 H304 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	0.1- 1 %	Corrosive to metals 1 H290 Acute toxicity 3; Oral H301 Skin corrosion/irritation 1 H314 Serious eye damage/eye irritation 1 H318 Acute hazards to the aquatic environment 3 H402

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:
Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.
Do not induce vomiting.
Seek medical attention from a specialist.
See section: Description of first aid measures

Section 5. Fire fighting measures

Suitable extinguishing media:
Foam, extinguishing powder, carbon dioxide.

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.
Do not expose to direct heat.

Special protection equipment and precautions for firefighters:
Wear self-contained breathing apparatus.

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

Section 6. Accidental release measures

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

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

Clean-up methods:
Wipe up using absorbent material.
Store in a partly filled, closed container until disposal.
Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:
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:

HEPTANE, ALL ISOMERS 142-82-5	**Value type**	Time Weighted Average (TWA):
	ppm	400
	Remarks	ACGIH
HEPTANE (N-HEPTANE) 142-82-5	**Value type**	Time Weighted Average (TWA):
	ppm	500
	Remarks	TH OEL
HEPTANE, ALL ISOMERS 142-82-5	**Value type**	Short Term Exposure Limit (STEL):
	ppm	500
	Remarks	ACGIH
METHYLCYCLOHEXANE 108-87-2	**Value type**	Time Weighted Average (TWA):
	ppm	500
	Remarks	TH OEL
Methylcyclohexane 108-87-2	**Value type**	Time Weighted Average (TWA):
	ppm	100
	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:
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:
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:	Clear, Colourless / Colorless liquid
Odor:	Of hydrocarbons
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:	0.68
Boiling point:	98 °C (208.4 °F)
Flash point:	-4 °C (24.8 °F)
Evaporation rate:	2.7 (Ether = 1)
Flammability (solid, gas):	No data available.
Lower explosive limit:	1.1 %(V)
Upper explosive limit:	6.7 %(V)
Vapor pressure: (; 20 °C (68 °F))	5.33 kPa
Vapor density:	3.4 (Air = 1)
Density:	0.68 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.
VOC content: (2010/75/EC)	100 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:
Strong oxidizing agents.
Chemical stability:
Stable under recommended storage conditions.
Conditions to avoid:
Stable under normal conditions of storage and use.
Hazardous decomposition products:
carbon oxides.

Section 11. Toxicological information

Oral toxicity:	Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method
	Acute toxicity estimate (ATE) : > 5,000 mg/kg Method: Calculation method

Symptoms of Overexposure**:** SKIN: Redness, inflammation.
ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema
Vapors may cause drowsiness and dizziness.
Prolonged or repeated contact may cause skin irritation.

Acute oral toxicity:

n-Heptane 142-82-5	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Methylcyclohexane 108-87-2	Value type	LD50
	Value	> 3,200 mg/kg
	Species	rat
	Method	not specified
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Value type	Acute toxicity estimate (ATE)
	Value	215 mg/kg
	Species	
	Method	Expert judgement

Acute inhalative toxicity:

n-Heptane 142-82-5	Value type	LC50
	Value	> 29.29 mg/l
	Exposure time	4 h
	Species	rat
	Method	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Methylcyclohexane 108-87-2	Value type	LC50
	Value	> 26.3 mg/l
	Exposure time	1 h
	Species	rat
	Method	not specified

Acute dermal toxicity:

n-Heptane 142-82-5	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Methylcyclohexane 108-87-2	Value type	LD50
	Value	> 2,000 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

n-Heptane 142-82-5	Result	irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methylcyclohexane 108-87-2	Result	not irritating
	Exposure time	24 h
	Species	rabbit
	Method	Draize Test

Serious eye damage/irritation:

n-Heptane 142-82-5	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methylcyclohexane 108-87-2	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

n-Heptane 142-82-5	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Methylcyclohexane 108-87-2	Result	not sensitising
	Test type	Buehler test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

n-Heptane 142-82-5	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)
n-Heptane 142-82-5	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	not applicable
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Methylcyclohexane 108-87-2	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)
Methylcyclohexane 108-87-2	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)
Methylcyclohexane 108-87-2	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity:

n-Heptane 142-82-5	Result	
	Route of application	inhalation: vapour
	Exposure time / Frequency of treatment	16 weeks12 hours/day, 7 days/week
	Species	rat
	Method	
Methylcyclohexane 108-87-2	Result	NOAEL=250 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	28 ddaily
	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: H410 Very toxic to aquatic life with long lasting effects.

Toxicity:

n-Heptane 142-82-5	Value type	LC50
	Value	> 220 - 270 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Leuciscus idus
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Heptane 142-82-5	Value type	EC50
	Value	1.5 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	other guideline:
Methylcyclohexane 108-87-2	Value type	LC50
	Value	2.07 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oryzias latipes
	Method	other guideline:
Methylcyclohexane 108-87-2	Value type	EC50
	Value	0.326 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	other guideline:
Methylcyclohexane 108-87-2	Value type	EC50
	Value	0.134 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)
	Method	other guideline:
	Value type	NOEC
	Value	0.022 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)
	Method	other guideline:
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Value type	LC50
	Value	> 100 - 220 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Leuciscus idus
	Method	DIN 38412-15
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Value type	EC50
	Value	50 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Value type	EC50
	Value	> 100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)
	Method	EU Method C.3 (Algal Inhibition test)
	Value type	NOEC
	Value	> 100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)
	Method	EU Method C.3 (Algal Inhibition test)
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Value type	EC 50
	Value	330 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	17 h
	Species	

	Method	not specified

Persistence and degradability:

n-Heptane 142-82-5	Result	readily biodegradable
	Route of application	aerobic
	Degradability	70 %
	Method	other guideline:
Methylcyclohexane 108-87-2	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	0 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Result	not inherently biodegradable
	Route of application	aerobic
	Degradability	< 20 %
	Method	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
	Result	not readily biodegradable.
	Route of application	aerobic
	Degradability	< 20 %
	Method	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

Bioaccumulative potential / Mobility in soil:

n-Heptane 142-82-5	Bioconcentration factor (BCF)	552
	Exposure time	
	Species	calculation
	Temperature	
	Method	QSAR (Quantitative Structure Activity Relationship)
n-Heptane 142-82-5	LogPow	4.66
	Temperature	
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Methylcyclohexane 108-87-2	Bioconcentration factor (BCF)	> 95 - < 321
	Exposure time	56 day
	Species	Cyprinus carpio
	Temperature	25 °C
	Method	other guideline:
Methylcyclohexane 108-87-2	LogPow	3.88
	Temperature	
	Method	other guideline:
1,8-Diazabicyclo[5.4.0]undec-7-ene 6674-22-2	Bioconcentration factor (BCF)	< 0.4
	Exposure time	42 day
	Species	Cyprinus carpio
	Temperature	
	Method	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)

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:	3
Packing group:	II
Classification code:	F1
Hazard ident. number:	33
UN no.:	1206
Label:	3
Technical name:	HEPTANES (solution)

Railroad transport RID:

Class:	3
Packing group:	II
Classification code:	F1
Hazard ident. number:	33
UN no.:	1206
Label:	3
Technical name:	HEPTANES (solution)

Inland water transport ADN:

Class:	3
Packing group:	II
Classification code:	F1
Hazard ident. number:	33
UN no.:	1206
Label:	3
Technical name:	HEPTANES (solution)

Marine transport IMDG:

Class:	3
Packing group:	II
UN no.:	1206
Label:	3
EmS:	F-E ,S-D
Seawater pollutant:	Marine pollutant
Proper shipping name:	HEPTANES (n-Heptane) (solution)

Air transport IATA:

Class:	3
Packing group:	II
Packaging instructions (passenger):	353
Packaging instructions (cargo):	364
UN no.:	1206
Label:	3
Proper shipping name:	Heptanes (solution)

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
IECSC	yes
NZIOC	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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