



Safety Data Sheet according to (EC) No 1907/2006

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LOCTITE SF 7457 known as Loctite 7457

SDS No. : 179509
V004.1

Revision: 21.05.2015

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Replaces version from: 18.06.2014

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE SF 7457 known as Loctite 7457

Contains:

n-Heptane

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Primer, containing solvents

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000

Fax-no.: +44 1442 278071

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation	Category 2
H315 Causes skin irritation.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central Nervous System	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 1
H410 Very toxic to aquatic life with long lasting effects.	
Flammable aerosol	Category 1
H222 Extremely flammable aerosol.	
H229 Pressurised container: May burst if heated.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:		
Signal word:	Danger	
Hazard statement:	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H410 Very toxic to aquatic life with long lasting effects.	
Precautionary statement:	P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P211 Do not spray on an open flame or other ignition source. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P102 Keep out of reach of children.	
Precautionary statement: Prevention	P261 Avoid breathing spray. P273 Avoid release to the environment.	
Precautionary statement: Response	P302+P352 IF ON SKIN: Wash with plenty of water.	

2.3. Other hazards

The aerosol container is under pressure. Do not expose to high temperatures.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Primer, containing solvents

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
n-Heptane 142-82-5	205-563-8 01-2119475515-33	> 50- < 100 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Methylcyclohexane 108-87-2	203-624-3 01-2119486992-20	> 5- < 10 %	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411
octane [and isomers] 111-65-9	203-892-1	> 2,5- < 5 %	Flam. Liq. 2 H225 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Acute 1 H400 Asp. Tox. 1 H304 Aquatic Chronic 1 H410
N,N-Dimethyl-p-toluidine 99-97-8	202-805-4	> 0,1- < 0,9 %	STOT RE 2 H373 Aquatic Chronic 3 H412 Acute Tox. 3; Inhalation H331 Acute Tox. 3; Dermal H311 Acute Tox. 3; Oral H301
Propane 74-98-6	200-827-9 01-2119486944-21	> 10- < 20 %	Flam. Gas 1 H220 Press. Gas H280

**For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.**

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air.
Seek medical advice.

Skin contact:
Rinse with running water and soap.
Seek medical advice.

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.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Redness, inflammation.

Vapors may cause drowsiness and dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

Combustion behaviour:

Solvent containing flammable product. In case of fire toxic gases are released.

5.1. Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Vapours may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.
Oxides of carbon, oxides of nitrogen, irritating organic vapors.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition.
Ensure adequate ventilation.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Wipe up using absorbent material.
Store in a partly filled, closed container until disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from sources of ignition - no smoking.
Vapours should be extracted to avoid inhalation.
Use only in well-ventilated areas.

Hygiene measures:

- Wash hands before work breaks and after finishing work.
- Do not eat, drink or smoke while working.
- Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

- Store in a cool, dry place.
- Do not store near sources of heat or ignition, or reactive materials.

7.3. Specific end use(s)

- Primer, containing solvents

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Heptane 142-82-5 [N-HEPTANE]	500	2.085	Time Weighted Average (TWA):		EH40 WEL
Heptane 142-82-5 [N-HEPTANE]	500	2.085	Time Weighted Average (TWA):	Indicative	ECTLV
Propane 74-98-6 [PROPANE]				Included in the regulation but with no data values. See regulation for further details	EH40 WEL

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
n-Heptane 142-82-5	Workers	Dermal	Long term exposure - systemic effects		300 mg/kg bw/day	
n-Heptane 142-82-5	Workers	Inhalation	Long term exposure - systemic effects		2085 mg/m ³	
n-Heptane 142-82-5	general population	Dermal	Long term exposure - systemic effects		149 mg/kg bw/day	
n-Heptane 142-82-5	general population	Inhalation	Long term exposure - systemic effects		447 mg/m ³	
n-Heptane 142-82-5	general population	oral	Long term exposure - systemic effects		149 mg/kg bw/day	
Methylcyclohexane 108-87-2	Workers	Dermal	Long term exposure - systemic effects		773 mg/kg bw/day	
Methylcyclohexane 108-87-2	Workers	Inhalation	Long term exposure - systemic effects		2035 mg/m ³	
Methylcyclohexane 108-87-2	general population	Dermal	Long term exposure - systemic effects		699 mg/kg bw/day	
Methylcyclohexane 108-87-2	general population	Inhalation	Long term exposure - systemic effects		608 mg/m ³	
Methylcyclohexane 108-87-2	general population	oral	Long term exposure - systemic effects		699 mg/kg bw/day	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Do not inhale vapors and fumes.

Use only in well-ventilated areas.

Hand protection:

The use of chemical resistant gloves such as Nitrile is recommended.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Wear protective glasses.

Skin protection:

Suitable protective clothing

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	liquid colourless
Odor	pungent
Odour threshold	No data available / Not applicable
pH	Not determined
Initial boiling point	98 °C (208.4 °F)
Flash point	Not applicable
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	45,5 mbar
Density (ρ)	0,68 g/cm ³
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Not miscible
Solubility (qualitative) (Solvent: Acetone)	Miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	
lower	0 %(V)
upper	10,9 %(V)
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity**10.1. Reactivity**

Strong oxidizing agents.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.
Heat, flames, sparks and other sources of ignition.

10.6. Hazardous decomposition products

None if used for intended purpose.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-single exposure:

May cause drowsiness or dizziness.

Oral toxicity:

Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

Inhalative toxicity:

May cause irritation to respiratory system.

Skin irritation:

Causes skin irritation.

Solvent may remove essential oils from the skin making it susceptible to attack from other chemicals.

Eye irritation:

May cause mild irritation to the eyes.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Methylcyclohexane 108-87-2	LD50	> 5.840 mg/kg	oral		rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
n-Heptane 142-82-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test
Propane 74-98-6	negative with metabolic activation	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

SECTION 12: Ecological information**General ecological information:**

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

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity**Ecotoxicity:**

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

Toxic to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
n-Heptane 142-82-5	LC50	> 220 - 270 mg/l	Fish	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Heptane 142-82-5	EC50	1,5 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methylcyclohexane 108-87-2	EC50	147.000 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
octane [and isomers] 111-65-9	EC50	0,38 mg/l	Daphnia		Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

12.2. Persistence and degradability**Persistence and Biodegradability:**

No data available.

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

The product evaporates readily.

Bioaccumulative potential:

No data available.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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n-Heptane 142-82-5	4,66					OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
Methylcyclohexane 108-87-2	3,61					
octane [and isomers] 111-65-9	5,18					OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
N,N-Dimethyl-p-toluidine 99-97-8	2,81				25 °C	

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
n-Heptane 142-82-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Methylcyclohexane 108-87-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
N,N-Dimethyl-p-toluidine 99-97-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Propane 74-98-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of according to 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.

Disposal must be made according to official regulations.

Waste code

14 06 03 Other solvents and solvent mixtures

SECTION 14: Transport information**14.1. UN number**

ADR	1950
RID	1950
ADN	1950
IMDG	1950
IATA	1950

14.2. UN proper shipping name

ADR	AEROSOLS
RID	AEROSOLS
ADN	AEROSOLS
IMDG	AEROSOLS (n-Heptane)
IATA	Aerosols, flammable

14.3. Transport hazard class(es)

ADR	2.1
RID	2.1
ADN	2.1
IMDG	2.1
IATA	2.1

14.4. Packaging group

ADR
RID
ADN
IMDG
IATA

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Environmentally Hazardous
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content 100 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapor.
- H280 Contains gas under pressure; may explode if heated.
- H301 Toxic if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H331 Toxic if inhaled.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Further information:

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and its subsequent amendments, and Commission Directive 1999/45/EC.

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.

Label elements (DPD):

N - Dangerous for the environment



Xi - Irritant



F+ - Extremely flammable



Risk phrases:

- R12 Extremely flammable.
- R38 Irritating to skin.
- R67 Vapours may cause drowsiness and dizziness.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- S16 Keep away from sources of ignition - No smoking.
- S23 Do not breathe vapour.
- S28 After contact with skin, wash immediately with plenty of water.
- S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children

Contains:

n-Heptane

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

LOCTITE® SF 7457™Known as LOCTITE® 7457™
January 2015**PRODUCT DESCRIPTION**

LOCTITE® SF 7457™ provides the following product characteristics:

Technology	Cyanoacrylate Activator
Chemical Type	Amine (active ingredient)
Solvent	n-Heptane
Active Ingredient Concentration, %	0.65 to 1.0 ^{LMS}
Appearance	Transparent colorless to slightly amber liquid ^{LMS}
Viscosity	Very low
Cure	Not applicable
Application	CA adhesive cure accelerator

LOCTITE® SF 7457™ is used where increased cure speed of LOCTITE® cyanoacrylate adhesives is required. It can be either pre- or post-applied to the bond. Used preapplied, presence of LOCTITE® SF 7457™ can be detected by fluorescence. LOCTITE® SF 7457™ has been formulated to provide good on part life. The product is especially suited for post-application on cyanoacrylate adhesive to ensure rapid fixturing. Typical applications include securing wires or coils to PCBs, tamper-proofing adjustable components, mounting stand-offs, edge guides and board stiffeners.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	0.68
Viscosity @ 20 °C, mPa·s (cP)	0.3 to 0.5
Drying Time @ 20 °C, seconds	≤60
On Part Life, hours	≤8
Flash Point - See SDS	

TYPICAL PERFORMANCE

Fixture time and cure speed achieved as a result of using LOCTITE® SF 7457™ depend on the adhesive used and the substrate bonded.

Fixture Time, ISO 4587, seconds:	
Steel (degreased) using LOCTITE® 416™, single side activation	≤35 ^{LMS}

(Fixture time is defined as the time to develop a shear strength of 0.1 N/mm²)

Handling precautions

Activator must be handled in a manner applicable to highly flammable materials and in compliance with relevant local regulations.

The solvent can affect certain plastics or coatings. It is recommended to check all surfaces for compatibility before use.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected with a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

Under no circumstances should activator and adhesive be mixed directly as liquids. Use only in a well ventilated area.

Directions for use**Post Activation**

1. Apply Loctite cyanoacrylate to the parts to be bonded or fixed.
2. Apply Activator over all exposed cyanoacrylate adhesive by spray or drop. (Typically use one drop of activator per drop of exposed adhesive).

Surface Activation

1. Apply one coating of Activator to the area to be bonded by spray, brush or dipping. Contaminated surfaces may need special cleaning or degreasing prior to activation to remove any soluble contamination.
2. Allow LOCTITE® SF 7457™ to fully evaporate from parts prior to bonding to avoid solvent entrapment within the bond joint.
3. Apply the Loctite cyanoacrylate product when solvent has evaporated and not more than 8 hours thereafter.

Loctite Material Specification^{LMS}

LMS dated July 08, 2004. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage

This activator is classified as **HIGHLY FLAMMABLE** and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidising agents or

combustible materials. The product is light sensitive and accordingly, translucent containers should be kept in a dark place when not in use. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 1.1