

This safety data sheet has been prepared in accordance with the requirements of EC Directives 1999/45/EC and 2001/58/EC and provides information relating to the safe handling and use of the product.

1. PRODUCT AND COMPANY INFORMATION

Product Code	0178047
Trade Name	7455
Manufacturer/Supplier	Henkel Loctite Adhesives Ltd.
Address	Watchmead, Welwyn Garden City, Herts., AL71JB. UK
Phone Number	01 707 358800
Fax Number	01 707 358900
Emergency Phone Number	+353-1-4599301/+353-87-2629625/+353-1-4046444

2. COMPOSITION / INFORMATION ON INGREDIENTS

Nature Solvent based activator.

Hazardous Components in Product for EC

Component Name	CAS / EINEC	Concentration	R Phrases	Classification
Heptane	142-82-5	205- 60.00 - 100.00	R11, R38, R65, R67, R50/53	F, Xn, N
N,N-Dimethyl-p-Toluidine	99-97-8	202- 0.10 - 1.00	R23/24/25, R33	T
	805-4			

3. HAZARD IDENTIFICATION

Highly flammable.

Harmful: may cause lung damage if swallowed. Irritating to skin.

Vapours may cause drowsiness and dizziness.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

First Aid - Inhalation

Remove affected person to fresh air, and if still feeling unwell seek medical attention.

First Aid - Skin

Wash skin with plenty of soap and water and apply replenishing cream if necessary. Seek medical advice if irritation develops.

First Aid - Eyes

Flush eyes immediately with plenty of water for at least 15 minutes. Seek medical attention immediately.

First Aid - Ingestion

Rinse mouth with water then give plenty of water to drink. Do not induce vomiting. Obtain medical attention urgently.

5. FIRE FIGHTING MEASURES

This product is highly flammable having a flash point of -1°C. Keep unaffected containers cool with water spray. If product is involved in fire extinguish with dry powder, foam or carbon dioxide. Self contained breathing apparatus should be worn when dealing with fire.

6. ACCIDENTAL RELEASE MEASURES

Ventilate area. Eliminate sources of ignition. Absorb spillage onto inert absorbent material and

6. ACCIDENTAL RELEASE MEASURES

place in a closed container, which should be partially filled (air space), for disposal.

7. HANDLING AND STORAGE

Handling

Avoid sources of ignition - no smoking. Vapours should be extracted to avoid inhalation.

Storage

Keep away from sources of ignition. Store away from heat in a cool, well-ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits**Heptane**

HSA (2002).C.O.P.: OEL 400 ppm,(1600 mg/m³) 8h TWA

HSA (2002).C.O.P.: OEL 500 ppm,(2000 mg/m³) 15 min exposure limit.

ACGIH: TLV 400ppm 8h TWA.

ACGIH: STEL 500ppm 15min TWA.

Good industrial hygiene practices should be observed.

Do not breathe vapour. Use in well ventilated area. Avoid contact with skin and eyes.

In circumstances where there is a potential for prolonged or repeated skin contact, the use of polyvinyl chloride or nitrile rubber gauntlets or equivalent solvent resistant gloves is recommended. Safety glasses should be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid.
Colour	Colourless.
Odour	Pungent.
pH	Not determined.
Boiling Range/Point (°C)	97 to 99.
Flash Point (CC) (°C)	-1°C
Specific Gravity	0.68 g/cm ³ at 20 °C.
Solubility in Water (kg/m³)	Immiscible.
Solubility in Acetone	Miscible
Vapour Pressure (mmHg @25°C)	35 at 20 °C.
Explosion Limits (%)	1 to 7.

10. STABILITY AND REACTIVITY

The product is relatively stable under normal conditions of use. Non reactive to oxidising agents except for peroxides.

11. TOXICOLOGICAL INFORMATION

Inhalation

Inhalation of vapours may cause headaches or dizziness.

Skin

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

11. TOXICOLOGICAL INFORMATION**Eyes**

May cause mild irritation to the eyes.

Ingestion

Harmful: may cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

12. ECOLOGICAL INFORMATION

The product should not go into drains or surface water.

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local and national regulations.

14. TRANSPORT INFORMATION

UN Number	1206
Air (IATA)	Heptanes, Class 3, Flammable liquid, Packaging Grp II
Sea (IMO)	Heptanes, Flammable liquids, Class 3, Pkg Grp II EmS F-E S-D .
Road (ADR)/Rail (RID)	Heptanes, Flammable liquids, Class 3, Pkg grp II. Classification code: F1

15. REGULATORY INFORMATION

Contains	N-Heptane		
Labelling Information	 Harmful	 Highly flammable	 Dangerous for the Environment
R phrases	R11 Highly flammable. R38 Irritating to skin. R65 Harmful: may cause lung damage if swallowed. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R67 Vapours may cause drowsiness and dizziness.		
S 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 soap and water. S61 Avoid release to the environment. Refer to special instructions/Safety data sheets. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.		

Voluntary Labelling**16. OTHER INFORMATION****MSDS data revised** 14 July 2003**Hazardous Components in Product for EC****Component Name**

Heptane

N,N-Dimethyl-p-Toluidine

R11

R23/24/25

R11 Highly flammable.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R Phrases

R11, R38, R65,

R67, R50/53

R23/24/25, R33

Component NameR33
R38
R50/53R65
R67**R Phrases**R33 Danger of cumulative effects.
R38 Irritating to skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

Prepared by:

Dr. Paul Friery
Senior HRA Specialist
Health & Regulatory Affairs - Europe

Further Information may be obtained from:-

Loctite Corporation,
Health and Regulatory Affairs - Europe,
Tallaght Business Park,
Whitestown, Dublin 24,
Ireland.Tel: +353-1-4046444.
Fax: +353-1-4510806.

The information in this safety data sheet was obtained from reputable sources and to the best of our knowledge is accurate and current at the mentioned date. Neither Loctite nor its subsidiary companies accept any liability arising out of the use of the information provided here or the use, application or processing of the product(s) described herein. Attention of users is drawn to the possible hazards from improper use of the product(s). This safety data sheet was prepared in accordance with Commission Directive 2001/59/EC adapting to technical progress for the 28th time Council Directive 67/548/EEC and Commission Directive 1999/45/EC.

LOCTITE® SF 7455™Known as LOCTITE® 7455™
June 2014**PRODUCT DESCRIPTION**

LOCTITE® SF 7455™ provides the following product characteristics:

Technology	Cyanoacrylate Activator
Chemical Type	Amine (active ingredient)
Solvent	n-Heptane
Active Ingredient Concentration, %	0.7 to 1.0 ^{LMS}
Appearance	Clear colorless to slightly amber solution ^{LMS}
Viscosity	Very low
Cure	Not applicable
Application	CA adhesive cure accelerator

LOCTITE® SF 7455™ is used where increased cure speed of LOCTITE® cyanoacrylate adhesives is required. It can be either pre- or post-applied to the bond. 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. LOCTITE® SF 7455™ typical applications include bonding dissimilar materials such as metals, glass or ceramics and where fast fixturing is required between close fitting parts.

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, minutes	≤1
Flash Point - See SDS	

TYPICAL PERFORMANCE

Fixture time and cure speed achieved as a result of using LOCTITE® SF 7455™ depend on the adhesive used and the substrate bonded.

Fixture Time, ISO 4587, seconds:

Steel (degreased) using LOCTITE® 416™, single side activation	≤10
---	-----

(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 7455™ to fully evaporate from parts prior to bonding to avoid solvent entrapment within the bond joint.
3. Apply the Loctite cyanoacrylate product immediately after drying or not more than 45 seconds thereafter.
4. Activator can be re-applied if necessary if there is a delay of more than 45 seconds between original activator and adhesive application.

Loctite Material Specification^{LMS}

LMS dated August 07, 2009. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to

be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 1.2