



Revision Number: 004.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE SF 7070 ODC-FREE CLEANER &amp; DEGREASER known as ODC-Free Cleaner &amp; Degreaser</b>	<b>IDH number:</b>	231562
<b>Product type:</b>	Solvent based cleaner	<b>Item number:</b>	22355
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	1-877-671-4608 (toll free) or 1-303-592-1711		
	TRANSPORT EMERGENCY Phone: CHEMTREC		
	1-800-424-9300 (toll free) or 1-703-527-3887		
	Internet: www.henkelna.com		

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**DANGER:** CONTENTS UNDER PRESSURE.  
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.  
CAUSES SKIN IRRITATION.  
CAUSES SERIOUS EYE IRRITATION.  
MAY CAUSE DROWSINESS OR DIZZINESS. CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
ASPIRATION HAZARD	1
GASES UNDER PRESSURE	Liquef. Gas

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Avoid breathing mist or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye and face protection. Wear protective gloves.

**Response:** IF SWALLOWED: Immediately call a physician or poison control center. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Call a poison control center or physician if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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**Disposal:** Protect from sunlight. Store in a well-ventilated place.

Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Naphtha (petroleum), hydrotreated heavy Benzene < 0,1 %	64742-48-9	30 - 60
Distillates (petroleum), hydrotreated light	Proprietary	30 - 60
D-Limonene	5989-27-5	10 - 30
Carbon dioxide	124-38-9	5 - 10

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	Wash with soap and water. Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA). Water may be unsuitable as an extinguishing media, but may be helpful in keeping adjacent containers cool. Avoid spreading liquid with water used for cooling purposes.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon. Irritating organic vapours.

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:** Do not allow product to enter sewer or waterways.

**Clean-up methods:**

Spilled liquid is combustible and can be ignited by heat, flames, sparks, or other sources of ignition. Vapors are heavier than air and may travel along the ground or be moved by ventilation and subsequently ignited by heat, pilot lights or other ignition sources at locations distant from the material handling point. Remove all sources of ignition. Maintain good ventilation for large spills. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Spilled material will solidify.

## 7. HANDLING AND STORAGE

**Handling:**

Keep container closed. Do not puncture or incinerate pressurized containers. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Wash thoroughly after handling. Do not wear contact lenses. Keep out of the reach of children. Vapors will accumulate readily and may ignite explosively.

**Storage:**

Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Naphtha (petroleum), hydrotreated heavy Benzene < 0,1 %	None	100 ppm (400 mg/m3) PEL	None	196 ppm TWA
Distillates (petroleum), hydrotreated light	None	None	None	None
D-Limonene	None	None	30 ppm (165.5 mg/m3) TWA	None
Carbon dioxide	5,000 ppm TWA 30,000 ppm STEL	5,000 ppm (9,000 mg/m3) PEL	None	None

**Engineering controls:**

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits. Provide local ventilation for prolonged use in a confined area. In case of insufficient ventilation, wear suitable respiratory equipment.

**Respiratory protection:**

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Eye/face protection:**

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:**

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Liquid, Aerosol

**Color:**

Colorless

**Odor:**

Citrus, fruity

**Odor threshold:**

Not available.

**pH:**

Not available.

**Vapor pressure:**

5 mm hg (68 °F (20°C)) 5 mm hg (20 °C (68°F))

**Boiling point/range:**

> 300 °F (> 148.9 °C) None > 148 °C (> 298.4 °F)

**Melting point/ range:**

Not available.

**Specific gravity:**

0.7718

**Specific gravity:**

0.7718

**Vapor density:**

Heavier than air

**Flash point:**

88 °C (190.4 °F)

<b>Flashback:</b>	This product exhibits no flashback when tested for flame extension.
<b>Flame projection:</b>	91.00 cm (35.83 inch)
<b>Flammable/Explosive limits - lower:</b>	0.7 %
<b>Flammable/Explosive limits - upper:</b>	5 %
<b>Autoignition temperature:</b>	Not available.
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Insoluble
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	100 %; 780 g/l
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Hydrocarbons.
<b>Incompatible materials:</b>	Strong oxidizing agents. Acids and bases.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition. Fire or intense heat may cause violent rupture of packages.

## 11. TOXICOLOGICAL INFORMATION

**Relevant routes of exposure:** Skin, Inhalation, Eyes, Ingestion

### Potential Health Effects/Symptoms

<b>Inhalation:</b>	High Concentrations of vapors may cause harmful effects. Symptoms usually occur at air concentrations above the recommended exposure limits. Symptoms are typically seen at air concentrations exceeding the recommended exposure limits. May cause irritation to nose and throat. Dizziness. Headache.
<b>Skin contact:</b>	Causes skin irritation.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	Ingestion causes irritation and effects similar to inhalation.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Naphtha (petroleum), hydrotreated heavy Benzene < 0,1 %	None	Irritant
Distillates (petroleum), hydrotreated light	None	Irritant, Lung
D-Limonene	None	Irritant
Carbon dioxide	None	Central nervous system

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Naphtha (petroleum), hydrotreated heavy Benzene < 0,1 %	No	No	No
Distillates (petroleum), hydrotreated light	No	No	No
D-Limonene	No	No	No
Carbon dioxide	No	No	No

## 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: D001: Ignitable.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Aerosols (Dipentene)  
Hazard class or division: 2.2  
Identification number: UN 1950  
Packing group: None  
Marine pollutant: Dipentene

### International Air Transportation (ICAO/IATA)

Proper shipping name: Aerosols, non-flammable  
Hazard class or division: 2.2  
Identification number: UN 1950  
Packing group: None

### Water Transportation (IMO/IMDG)

Proper shipping name: AEROSOLS (Dipentene)  
Hazard class or division: 2.2  
Identification number: UN 1950  
Packing group: None  
Marine pollutant: Dipentene

## 15. REGULATORY INFORMATION

### United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.  
TSCA 12 (b) Export Notification: None above reporting de minimis  
CERCLA/SARA Section 302 EHS: None above reporting de minimis  
CERCLA/SARA Section 311/312: Immediate Health, Pressure, Fire  
CERCLA/SARA Section 313: None above reporting de minimis  
California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

### Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

**Prepared by:** Catherine Bimler, Regulatory Affairs Specialist

**Issue date:** 03/09/2015

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# LOCTITE<sup>®</sup> SF 7070™

Known as LOCTITE<sup>®</sup> 7070™  
December 2013

## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> SF 7070™ provides the following product characteristics:

<b>Technology</b>	Solvent cleaner
<b>Chemical Type</b>	Hydrocarbon / Monoterpene blend
<b>Appearance</b>	Colorless transparent liquid <sup>LMS</sup>
<b>Viscosity</b>	Very low
<b>Cure</b>	Not applicable
<b>Application</b>	Surface cleaner

LOCTITE<sup>®</sup> SF 7070™ is a non-aqueous, hydrocarbon based, non-CFC solvent designed for cleaning and degreasing of surfaces to be bonded with LOCTITE<sup>®</sup> adhesives. The product is used as a final pre-assembly cleaning treatment to remove most greases, oils, lubrication fluids, metal cuttings and fines from surfaces to be bonded. It is designed to be used as a spray or in immersion cleaning processes at room temperature or heated.

## NSF International

**Registered to NSF Category K1** for use as a cleaner and degreaser in non food processing areas which are used to remove oil, wax, resinous materials, or other substances not removable by using acidic or alkaline cleaning agents. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

## TYPICAL PROPERTIES

Specific Gravity @ 25 °C	0.75
Infrared Spectrum	As standard <sup>LMS</sup>
Viscosity @ 20°C, mPa·s (cP)	1 to 2
Drying Time @ 20 °C, minutes	5 to 20
Kauri-Butanol Value (KB)	31
Flash Point - See SDS	

## TYPICAL PERFORMANCE

LOCTITE<sup>®</sup> SF 7070™ has no effect on the speed of cure or final strength of LOCTITE<sup>®</sup> adhesives other than providing a clean surface for good adhesion and adhesive cure. Unclean or partially cleaned surfaces can affect adhesive performance.

## Handling precautions

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

Special care must be taken to avoid contact of the product or its vapour with naked flame or any electrical equipment that is not flame proofed.

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

LOCTITE<sup>®</sup> SF 7070™ is compatible with metals, many plastics and elastomers.

The following table shows the effect of LOCTITE<sup>®</sup> SF 7070™ on various plastics and elastomers. Since compatibility is affected by material variation, it is recommended to check parts and cleaning equipment gaskets, seals and O-rings under end use conditions before adopting use of LOCTITE<sup>®</sup> SF 7070™.

## LOCTITE<sup>®</sup> SF 7070™ Compatibility with Plastics

Tested per ASTM D543

(All specimens weighed 30 minutes after removing from solvent)

Plastics	30 minutes @ 22 °C:	
	% Wt chg	Appearance
ABS	+0.05	No change
Acrylic	+0.11	No change
Polyacetal	+0.02	No change
G-10 Epoxy	+0.01	No change
Nylon 101	+0.14	No change
Nylon 66	+0.04	No change
Polycarbonate	+0.07	No change
Phenolic	+0.21	No change
Polyethylene (HD)	+0.05	No change
Polyethylene (LD)	+0.11	No change
Polypropylene	+0.06	No change
Polystyrene (High Impact)	+0.13	No change
Polystyrene	+0.13	No change
Polysulfone	+0.05	No change
PVC	+0.03	No change
Polytetrafluoroethylene	+0.02	No change
Polyetherimide	+0.09	No change
Polybutyleneterephthalate	+0.05	No change

Plastics	30 minutes @ 38 °C:	
	% Wt chg	Appearance
ABS	0	No change
Acrylic	+0.04	No change
Polyacetal	+0.01	No change
G-10 Epoxy	+0.01	No change
Nylon 101	+0.05	No change
Nylon 66	+0.02	No change
Polycarbonate	+0.03	No change
Phenolic	0.13	No change
Polyethylene (HD)	+0.1	No change
Polyethylene (LD)	0.39	No change
Polypropylene	+0.1	No change
Polystyrene (High Impact)	+0.28	No change
Polystyrene	+0.03	No change
Polysulfone	+0.03	No change
PVC	+0.03	No change
Polytetrafluoroethylene	+0.01	No change
Polyetherimide	+2.7	No change
Polybutyleneterephthalate	+0.04	No change

### LOCTITE® SF 7070™ Compatibility with Elastomers

Tested per ASTM D543

(All specimens weighed 30 minutes after removing from solvent)

Plastics	30 minutes @ 22 °C:	
	% Wt chg	Appearance
Buna-N	+0.9	Slight swelling
Buna-S	+0.48	Slight swelling
Butyl	+5.33	Swelling
EPDM	+5.23	Swelling
Neoprene	+1.08	Slight swelling
Polyurethane	+0.07	Slight swelling
Silicone	+10.8	Swelling
Fluoroelastomer	+1.08	Slight swelling

Plastics	30 minutes @ 38 °C:	
	% Wt chg	Appearance
Buna-N	+2.5	Swelling
Buna-S	+1.1	Slight swelling
Butyl	+8.2	Swelling
EPDM	+12.0	Swelling
Neoprene	+2.3	Swelling
Polyurethane	+0.07	Slight swelling
Silicone	+13.8	Swelling
Fluoroelastomer	0	Slight swelling

### 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).

#### Directions for use:

1. Treat surfaces to be cleaned by spraying or wiping surfaces with a solvent soaked paper towel.
2. Wipe surfaces when still wet with a clean cloth to remove all heavy contamination. If necessary, spray surfaces again to allow run-off of product.
3. Repeat cleaning process if necessary.
4. Allow LOCTITE® SF 7070™ to fully evaporate from parts prior to bonding to avoid solvent entrapment within the bond joint.
5. Apply the Loctite® adhesive immediately after drying and assemble bond.

### Loctite Material Specification<sup>LMS</sup>

LMS dated March 23, 2005. 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

The product is classified as flammable and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidizing agents or combustible materials. 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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