



# LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser

February 2006

## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser provides the following product characteristics:

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

LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser 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 all surfaces to be bonded. It is designed to be used as a spray or in immersion cleaning processes at room temperature or heated.

**Note:** LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser is not intended as a solvent for flushing Loctite products from dispensing equipment, or for cleaning printed circuit boards and printed circuit assemblies.

## TYPICAL PROPERTIES

Specific Gravity @ 25 °C	0.76 to 0.78 <sup>LMS</sup>
Flash Point - See MSDS	
Aromatics, %	<1
Drying Time @ 25 °C, minutes:	
No Wipe	>120
Post Wipe (Dry Cloth)	40 to 50

## TYPICAL PERFORMANCE

LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser 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> ODC-Free Cleaner & Degreaser is compatible with metals, many plastics and elastomers.

The following table shows the effect of LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser 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> ODC-Free Cleaner & Degreaser.

## LOCTITE<sup>®</sup> ODC-Free Cleaner & Degreaser 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® ODC-Free Cleaner & Degreaser Compatibility with Elastomers

Tested per ASTM D543

(All specimens weighed 30 minutes after removing from solvent)

Elastomers	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

Elastomers	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 Material Safety Data Sheet (MSDS).**

### Directions for use

1. Spray area generously with LOCTITE® ODC-Free Cleaner & Degreaser.
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. Allow LOCTITE® ODC-Free Cleaner & Degreaser to fully evaporate from parts prior to bonding to avoid solvent entrapment within the bond joint.
4. Apply the Loctite® adhesive immediately after drying and assemble bond.

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

LMS dated June 1, 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

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Reference 1.0