Technical Data Sheet

LOCTITE® LB 8023™

Known as LOCTITE® 8023™ or LOCTITE® MARINE GRADE ANTI-SEIZE™
January 2015

PRODUCT DESCRIPTION

LOCTITE® LB 8023™ provides the following product characteristics:

Technology	Calcium Sulfonate based
Appearance	Smooth, dark gray to black paste[LMS]
Cure	Non-curing
Application	Anti-seize
Specific Benefit	• Excellent lubricity • Prevents galvanic corrosion • Superior water spray resistance • Superior water wash-out resistance

LOCTITE® LB 8023™ features a formulation that protects assemblies exposed to direct or indirect fresh or salt water and high humidity conditions. Typical marine applications include bolts, screws, studs, pipe joints, nuts, shafts, bushings, splines, chains, and cables. Other applications include pulp and paper mills, water and waste water treatment plants, and dressing for water pump gaskets and flanges. This product is typically used in applications with an operating range of -29 °C to +1315 °C.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	1.25
Flash Point - See SDS	
Penetration, ISO 2137, 1/10 mm	300 to 380[LMS]
Weight Per Gallon, lbs/gal	1.2 to 1.36[LMS]
Water Resistance @ 25°C, ASTM D1264, %	0.0
Oil Separation, ASTM D6184, % wt. loss: @ 25 °C	0.21
Torque coefficient, k: 3/8 x 16 steel nuts and bolts	0.18
Copper Corrosion, ISO 2160	No visible change
Water washout, ASTM D1264, %	0.0
Galling and Seizing, PRF 907E Method 4.5.2.1	No visible change
Corrosion Resistance, Salt Fog, ASTM B117	No visible change

TYPICAL PERFORMANCE

An anti-seize lubricant used on a bolt helps to develop greater clamp load for the same torque compared to an unlubricated bolt. An additional benefit is greater uniformity in clamp load among a series of bolts. The relationship between torque and clamp load is expressed in the following equation:

$$T = K \times F \times D$$

T = Torque (N·m, lb.in, lb.ft)
K = Torque coefficient or nut factor, determine experimentally
F = Clamp load (N, lb.)
D = Nominal diameter of bolt (mm, in.)

GENERAL INFORMATION

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

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

Directions for use:

1. For best performance the mating surface should be clean and free of grease.
2. Clean parts with a wire brush prior to application of product.
3. Apply thin coating to mating surfaces, assemble.
4. Do not use thinner.
5. Keep container tightly closed when not in use.

Loctite Material Specification[LMS]
LMS dated September 01, 2000. 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
Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
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 Corporation 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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Reference 0.1

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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