ISOFLEX® TOPAS NB 52

Synthetic long-term grease for rolling and plain bearings

KLÜBER LUBRICATION

Description:

ISOFLEX TOPAS NB 52 is a lubricating grease with a wide service temperature range for plain and rolling bearings. It consists of synthetic hydrocarbon oil and barium complex soap. It is resistant to water, ambient media, oxidation and ageing, and it protects reliably against corrosion.

Application:

ISOFLEX TOPAS NB 52 is used in high-speed, high-load plain and rolling bearings; also suitable for low temperatures.

It is also suitable for electric contacts and components. Properly applied, ISOFLEX TOPAS NB 52 reduces electrical resistance in the lubrication point (e.g. electro-conductive flexible roller bearings, interrupter tubes).

In addition, the product is resistant to many synthetic materials.

Owing to the different compositions of elastomers and plastic materials, compatibility tests are indispensable before series application.

Application notes:

The lubricant is applied by brush, spatula, or grease gun.

Minimum shelf life:

The minimum shelf life is approx. 36 months if the product is stored in the original closed container in a dry place.

Package sizes:

400 g cartridge
1 kg can
25 kg bucket

ISOFLEX TOPAS NB 52

- Synthetic grease for plain and rolling bearings for a wide temperature range
- Also suitable for low temperatures
- Good pressure absorption
- Good resistance to water and ambient media
- Good corrosion protection
- Good resistance to oxidation and ageing

Product data:

Colour	beige
Texture	homogeneous, short-fibred
Density at 20 °C, g/cm^3, approx.	0.96
Service temperature range*, °C, approx.	– 50 to 120
Drop point, DIN ISO 2176, °C	> 240
Worked penetration, DIN ISO 2137, (ASTM D 217); 0.1 mm	265 to 295
Corrosion protection (Emcor test), DIN 51 802, 1 week, distilled water, corrosion rating	0
Base oil viscosity, DIN 51 562/1 at 40 °C, mm^2/s, approx. at 100 °C, mm^2/s, approx.	 30.0 5.5
Speed factor** (n x d_m), mm x min^{-1}, approx.	1,000,000
Apparent dynamic viscosity, Klüber viscosity grade***	M

* Service temperatures are guide values which depend on the lubricant's composition, the intended use and the application method. Lubricants change their consistency, apparent dynamic viscosity or viscosity depending on the mechano-dynamical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.

** Speed factors are guide values which depend on the type and size of the rolling bearing type and the local operating conditions, which is why they have to be confirmed in tests carried out by the user in each individual case.

*** Klüber viscosity grades: EL = extra light lubricating grease; L = light lubricating grease; M = medium lubricating grease; S = heavy lubricating grease; ES = extra heavy lubricating grease

Material Safety Data Sheet

Product name: **ISOFLEX TOPAS NB 52 (# 004131)**
Date: March 14, 2003
Replaces: May 2001

Section 1 - Product and Company Identification

Company: Klüber Lubrication North America L.P.
32 Industrial Drive
Londonderry, N.H. 03053
Phone: (603)647-4104
Fax: (603)647-4105

Emergency telephone no.: 1-800-424-9300 (Chemtrec)
Product Use: High speed lubricating grease for rolling bearing applications

Section 2 - Composition/Information on Ingredients

Ingredient	wt.%	TLV	PEL
Synthetic hydrocarbon oil	Proprietary	N/Ap	N/Ap
Barium soap thickener	<35%	N/Ap	N/Ap

Section 3 - Hazards Identification

Eye Contact: May cause mild irritation upon immediate contact.
Skin contact: Prolonged or repeated contact may cause the removal of skin oils, possibly leading to irritation or dermatitis.
Inhalation: Not applicable under conditions of normal use. However, if product is heated beyond conditions of normal use, it may create a hazardous environment.
Ingestion: No acute or chronic effects expected. If swallowed, may cause irritation of the digestive tract.

Section 4 - Emergency and First Aid Procedures

After contact with eyes: Flush eyes with plenty of water for 15 minutes. If irritation persists, or if an infection develops, seek medical attention.
After contact with skin: Wash off with soap and plenty of water. Apply skin cream if necessary. Seek medical attention if irritation or infection occurs. Remove contaminated clothing and wash before reuse.
After inhalation: Not applicable under normal conditions of use. If product is heated beyond intended use and overexposure results, remove victim to fresh air. Seek medical attention if necessary.
After ingestion: If large amounts are swallowed, do not induce vomiting. Seek medical attention.
Advice to doctor: Treat symptomatically.

Section 5 - Exposure Controls

Eye protection: Wear safety glasses. Do not wear contact lenses when working with chemicals.
Hand protection: Wear chemical-resistant gloves.
Body protection: Wear clean, body-covering clothing to minimize dermal exposure.
Ventilation: Under normal conditions of use, no special ventilation is required. If product will be heated beyond conditions of normal use, use local ventilation.
Respiratory protection: No special respiratory protection is required. However, if product is overheated beyond conditions of normal use, wear the appropriate NIOSH-approved respiratory protection.
Other protection measures: Safety showers, eye wash fountains, and washing facilities should be readily available.

Section 6 - Fire Fighting Measures

Flash point: > 200°C (Base Oil)
Lower explosion limit: N/Ap
Upper explosion limit: N/Ap
Extinguishing media: Water spray, foam, dry powder, carbon dioxide (CO_2)
Unusual fire and explosion hazards: Empty metal containers retain product residue. Do not pressurize, cut, weld, drill, solder or expose container to heat, flame, sparks, or other sources of ignition: it may explode, causing serious injury or death.
Special fire Fighting Procedures: Use self-contained breathing apparatus for enclosed or confined spaces or as otherwise needed. Cool fire exposed areas and equipment.

Section 7 - Accidental Release Measures

If product leaks or is inadvertently spilled, remove ignition sources and isolate surrounding spill area with the proper containment system to prevent the spill from reaching waterways. Add absorbent and soak up the product. Collect product and absorbent, place in a chemical waste container for proper disposal.

Section 8 - Handling and Storage

Avoid contact with skin and remove soiled or soaked clothing. Wash hands with soap and water before eating, drinking, and/or smoking. Clean skin thoroughly after work and if necessary, apply skin cream.

Store product under normal temperature and pressure.

Store product away from heat sources and food products.

Section 9 - Physical and Chemical Properties

Boiling Point (°C): N/Ap
Vapor Pressure (mm Hg.): N/Ap
Solubility in Water: Insoluble
Specific gravity (H_2O = 1): 0.96
Evaporation rate (ether = 1): N/Ap
Appearance and odor: Light-beige paste with a neutral odor

Section 10 - Stability and Reactivity

Stability: Stable

Conditions to avoid: Open flames and other sources of heat.

Materials to avoid: Strong oxidizers, such as pure oxygen.

Hazardous decomposition products: Fumes, smoke, carbon monoxide and carbon dioxide

Hazardous polymerization: Will not occur

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Section 11 - Toxicological Information

Acute: N/Av for the product.

Chronic: N/Av for the product.

Section 12- Disposal Considerations

Under RCRA, it is the user's responsibility to determine, at the time of disposal, whether the product meets any of the criteria for a hazardous waste defined in 40 CFR 261 Subpart C. This product contains <35% of a barium compound and it may be considered RCRA hazardous waste (D005).

TCLP Test (Barium results-mg/l): 10.0 mg/l

Section 13- Transportation Information

Proper Shipping Name	Hazard Class or Division	UN ID	Packing Group
N/Ap			

Section 14 – Regulatory Information

Barium compounds are subject to the release reporting requirements under SARA Title III, Section 313.

All product components comply with all applicable rules and orders under the Toxic Substance Control Act (TSCA).

Section 15 - Additional Information

HMIS Rating: Health -1 Flammability - 1 Reactivity - 0 Personal Protection - B

Unk. = Unknown N/Ap = Not Applicable N/Av = Not Available ~ = Approximately