# **ISOFLEX<sup>®</sup> TOPAS NB 52** Synthetic long-term grease for high and low temperatures



# **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 operating at high and/or 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. electroconductive 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. 60 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
- 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,<br>short-fibred |
| Density at 20 °C, g/cm <sup>3</sup> , approx.   | 0.96                         |
| Service temperature range*, °C, approx.   | – 50 to 130                  |
| Drop point, DIN ISO 2176, °C  | > 240                        |
| Worked penetration, DIN ISO 2137,<br>(ASTM D 217); 0.1 mm   | 265 to 295                   |
| Corrosion protection (Emcor test),<br>DIN 51 802, 1 week, distilled water,<br>corrosion rating                      | 0                            |
| Base oil viscosity, DIN 51 562/1<br>at 40 °C, mm <sup>2</sup> /s, approx.<br>at 100 °C, mm <sup>2</sup> /s, approx. | 30.0<br>5.5                  |
| Speed factor <sup>**</sup> (n x d <sub>m</sub> ), mm x min <sup>-1</sup> , approx.                                  | 1,000,000                    |
| Apparent dynamic viscosity,<br>Klüber viscosity grade***  | М                            |

\* 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 mechanodynamical 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

# ISOFLEX<sup>®</sup> TOPAS NB 52 Safety Data Sheet

| 1.1 | Product name: ISOFLEX TOPAS NB 52<br>Code-No.: 004 131<br>15.11.2001  |     | General protection and hygiene measures: Avoid prolonged and/or<br>repeated contact with skin. Remove soiled or soaked clothing im-<br>mediately. Clean skin thoroughly after work; apply skin cream   |
|-----|---|-----|--|
| °   | Klüber Lubrication München KG Emergency telephone no.:  | 9.  | Physical and chemical properties   |
| .2  | Geisenhausenerstraße 7 ++49 - 89 7876 - 0   | 0.  | Form paste   |
|     | D-81379 München   |     | Colour beige   |
|     | Tel. ++49 - 89 78 76 - 0 telephone exchange   |     | Odour characteristic   |
|     | Fax: ++49 - 89 78 76 - 333  |     |  |
|     | 1 42. 1140 00 10 10 000   |     | Drop point > 240 °C, DIN ISO 2176  |
|     |   |     | Flash point > 200 °C (base oil)  |
|     | Composition / information on ingredients  |     | Ignition temperature not applicable  |
|     | Chemical characterization (preparation): Synthetic hydrocarbon oil,   |     | Lower explosion limit not applicable   |
|     | barium complex soap   |     | Upper explosion limit not applicable   |
|     | Hazardous ingredients   |     | Vapour pressure-first not applicable   |
|     | Components Value R-phrases  |     | Density approx. 0.96 g/cm <sup>3</sup> , 20 °C   |
|     | ·   |     | ,  |
|     | Barium soap > 25% 52/53   |     | ······   |
|     |   |     | pH value not applicable  |
| •   | Herende identification  |     | Kinematic viscosity not applicable   |
| 3.  | Hazards identification  |     | Further information none   |
|     | R phrases: 52/53. Harmful to aquatic organisms, may cause long-term   |     |  |
|     | adverse effects in the aquatic environment. Prolonged skin contact may  | 40  | Stability and reactivity   |
|     | cause skin irritation and/or dermatitis   | 10. | Stability and reactivity   |
| 4.  |   |     | Conditions to avoid: None  |
|     | First aid measures  |     | Materials to avoid: Strong oxidizing agents  |
|     |   |     | Hazardous decomposition products: None under normal use  |
|     | After inhalation: Not applicable  |     | Additional information: None   |
|     | After contact with skin: Wash off with mild cleaners and plenty of water.   |     | Additional mormation. None   |
|     | If symptoms persist, call a physician   |     |  |
|     | After contact with eyes: Rinse with plenty of water. If symptoms persist,   | 11. | Toxicological information  |
|     | call a physician  |     | Prolonged skin contact may cause skin irritation and/or dermatitis   |
|     | After ingestion: Do not induce vomiting. Obtain medical attention   |     | ······································   |
|     | 5   | 40  |  |
|     | Advice to doctor: Treat symptomatically   | 12. | Ecological information   |
|     |   |     | Information on elimination (persistence and degradability): Product is   |
|     | Fire fighting measures  |     | insoluble in water. May be separated out mechanically in purification  |
| 5.  | Fire-fighting measures  |     | plants   |
|     | Suitable extinguishing media: Water spray, foam, dry powder,  |     | Behaviour in environmental compartments: Ecological injuries are not   |
|     | carbon dioxide (CO <sub>2</sub> )   |     | known or expected under normal use   |
|     | Unsuitable extinguishing media: High volume water jet   |     | Ecotoxic effects: Toxic to aquatic organisms, may cause long-term  |
|     | Special Hazards: In case of fire the following can be released: Carbon  |     | adverse effects in the aquatic environment   |
|     | monoxide, hydrocarbons  |     | •  |
|     | Special protective equipment for firefighters: Standard procedure for   |     | Additional information: Should not be released into the environment  |
|     | chemical fires  |     |  |
|     |   | 13. | Advice on Disposal   |
|     | Additional information: Water mist may be used to cool closed   |     | Code of waste: 120 112. Wastes from shaping and surface treatment o  |
|     | containers. In the event of fire and/or explosion do not breathe fumes  |     | metals and plastics; wastes from shaping (including forging, welding,  |
|     |   |     | pressing, drawing, turning, cutting and filling); spent waxes and fats   |
| 6.  | Accidental release measures   |     | Disposal: The code of waste has to correspond to the Council Directive   |
|     | Personal precautions: Not required  |     | 75/442/EEC and be specific as far as the related sector and process ar   |
|     |   |     | concerned. Can be incinerated when in compliance with local, state and   |
|     | Environmental precautions: Do not flush into surface water or sanitary  |     | federal regulations  |
|     | sewer system  |     | 5  |
|     | Methods for cleaning up / taking up: Use mechanical handling equip-   |     | Dispose of contaminated packaging and recommended cleaning: Offer  |
|     | ment. Dispose of absorbed material in accordance with the regulations   |     | rinsed packaging material to local recycling facilities  |
|     | Additional information: None  |     |  |
|     |   | 14. | Transport information  |
| _   |   |     | GGVS / GGVE: not applicable  |
|     | Handling and storage  |     | ADN / ADNR: not applicable   |
|     | Advice on safe handling: No special handling advice required  |     | IMDG-Code: not applicable  |
|     | Advice on protection against fire and explosion: No special precautions   |     | ICAO / IATA-DGR: not applicable  |
|     | required  |     | Further information: Not classified as dangerous in the meaning of   |
|     |   |     |  |
|     | Requirements on storage rooms and vessels: Store at room temperature  |     | transport regulations  |
|     | in the original container   |     |  |
|     | Incompatible materials: Incompatible with oxidizing agents. Do not store  | 15. | Regulatory information   |
|     |   |     | Labelling according to EU-guidelines: The product is classified and  |
|     | together with food  |     | labelled in accordance with EC-directive 99/45/CE  |
|     |   |     |  |
|     | together with food  |     |  |
|     | together with food<br>Further information on storage conditions: None   |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term   |
| 3.  | together with food<br>Further information on storage conditions: None<br>Exposure controls / personal protection  |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment  |
| 3.  | together with food<br>Further information on storage conditions: None   |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special   |
| 3.  | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special instructions / Safety data sheets   |
| 5.  | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   Ingredients and specific control parameters: None   |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special   |
| 5.  | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   Ingredients and specific control parameters: None   Respiratory protection: No special protective equipment required  |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special instructions / Safety data sheets   |
| 3.  | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   Ingredients and specific control parameters: None   |     | R phases: 52/53. Harmful to aquatic organisms, may cause long-term<br>adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special<br>instructions / Safety data sheets<br>National regulations: Labelling according to the Swiss regulations:  |
| 3.  | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   Ingredients and specific control parameters: None   Respiratory protection: No special protective equipment required  | 40  | R phases: 52/53. Harmful to aquatic organisms, may cause long-term<br>adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special<br>instructions / Safety data sheets<br>National regulations: Labelling according to the Swiss regulations:<br>No toxicological class, BAGT-no. 83029                      |
|     | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   Ingredients and specific control parameters: None   Respiratory protection: No special protective equipment required   Hand protection: No special protective equipment required   Eye protection: No special protective equipment required | 16. | R phases: 52/53. Harmful to aquatic organisms, may cause long-term<br>adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special<br>instructions / Safety data sheets<br>National regulations: Labelling according to the Swiss regulations:<br>No toxicological class, BAGT-no. 83029<br>Other information |
| ·.  | together with food   Further information on storage conditions: None   Exposure controls / personal protection   Additional advice on system design: Not applicable   Ingredients and specific control parameters: None   Respiratory protection: No special protective equipment required   Hand protection: No special protective equipment required  | 16. | R phases: 52/53. Harmful to aquatic organisms, may cause long-term<br>adverse effects in the aquatic environment<br>S phrases: 61. Avoid release to the environment. Refer to special<br>instructions / Safety data sheets<br>National regulations: Labelling according to the Swiss regulations:<br>No toxicological class, BAGT-no. 83029                      |

reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary tests with the selected product. We recommend contacting our Technical Consulting Staff to discuss your specific application. If required and possible we will be pleased to provide a sample for testing. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this product information at any time without notice.

Freudenberg Klüb

Klüber Lubrication München KG, a member of the Freudenberg group

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