FAG Rolling Bearing Grease Arcanol MULTITOP

Properties, applications: Bearing grease for high loads, low and high speeds, low and high temperatures, low noise, low friction

Characteristics		Unit	Value	Test method
Marking:			KP2N-40	DIN 51825
Colour:			brown	
Temperature range:		[°C]	-40 to 150	DIN 51825
Longtime limit temperature:		[°C]	80	
Density		[kg/dm³]	0,90	
Specifications:				
Thickener:			lithium soap	
Type of base oil:			mineral + ester oil	
Base oil viscosity	at 40°C:	[mm²/s]	85	DIN 51562 - 1
	at 100°C:	[mm²/s]	12,5	DIN 51562 - 1
Identification letters of additives:			A,K,EP	
Worked penetration:		[0,1 mm]	265-295	DIN ISO 2137
Consistency:		[NLGI-Cl.]	2	DIN 51818
Drop point:		[°C]	190	DIN ISO 2176
Oxidation stability Pressure drop after 100 h at 99		[kPa]	< 40	DIN 51808
Water resistance:		[Range]	1-90	DIN 51807 - 1
Flow pressure at -35 °C		[hPa]	< 1380	DIN 51805
Emcor Test:		[Corr.Grad]	0/0	DIN 51802
Copper corrosion after 24 h/100 °C		[Corr.Grad]	1	DIN 51811
Four ball weld load:		[N]	2000	DIN 51350 - 4
Wear scar of four ball test:		[mm]		DIN 51350 - 5
FE8 tests (rolling element wear)				
536048 - 75/ 50 - 45	v10 / v50	[mg]	<1 / <1	DIN 51819
536048 - 3000/ 10 - 100	v10 / v50	[mg]	7 / 11	DIN 51819
536050 - 6000/ 5 - 90	v10 / v50	[mg]	<1 / 3	DIN 51819
FE9 tests (grease service lifetime)				
A / 1500 / 6000 - 140	F10/F50	[h]	219 / 398	DIN 51821

Speed range:	Unit	Ball bearings and cylindrical roller bearings	Other roller bearings*)
Speed limit n*dm	[mm/min]	800.000	350.000

*) not cylindrical roller thrust bearings and spherical roller thrust bearings

Edition: 18.08.03

FAG Kugelfischer AG, ein Unternehmen der INA-Schaeffler Gruppe

Safety Data Sheet according to 93/112/EC
FAG Arcanol MULTITOP*)

1. Identification of substance/preparation and company

Identification of the substance or preparation

Product name: FAG Arcanol MULTITOP*)

Company/undertaking identification

Supplier:
FAG Kugelfischer AG
Postfach 1260
D-97419 Schweinfurt
Contact numbers: Tribology/Chemistry
Tel. 09721/91-4681
Fax 09721/91-1766
Emergency number:Tel. 09721/91-0

2. Composition/information on ingredients

Composition

Description:
Rolling bearing grease containing Lithium soap as thickener, highly refined mineral oils (base oil), synthetic oil and additives.
Dangerous components:
CAS-Nr./Name, Content, Label, R-Phrases
None

3. Hazards identification

Prolonged or repeated exposure may give rise to dermatitis. Avoid spillage. Weakly water endangering. Not readily biodegradable.

4. First-aid measures

Other information

Advice to physicians: Treat symptomatically.

After inhalation

Inhalation of any vapours from this product is not likely and does not present an acute hazard. Remove to fresh air. Seek medical advice.

After contact with skin

Remove contaminated clothing and wash affected skin with water and soap. If high pressure injection injuries occur, obtain medical attention immediately; surgery is urgently needed.

After contact with eye

Rinse immediately with plenty of water for several minutes and seek medical advice.

After ingestion

Do not induce vomiting. Oil compounds could get into lungs. Obtain medical attention.

5. Fire-fighting measures

Suitable extinguishing media

Dry fire extinguisher for fire group B, foam, chemical powder, carbon dioxide, water mist. Water mist for cooling endangered containers.

Extinguishing media which must not be used for safety reasons

Do not use water in a jet.

Special hazards arising from the product itself, combustion products, gases

Combustion is likely to give carbon monoxide, carbon dioxide, nitrogen oxides, sulfur dioxide, soot, unburnt hydrocarbons, organic crack products.

Special protective equipment for fire-fighters

Fire-fighting in closed rooms requires trained personal with appropriate breathing equipment.

6. Accidental release measures

Personal precautions

Prevent skin and eye contact. Serious danger of skidding after spillage.

Environmental precautions

Prevent further leakage or spillage. Prevent from entering into drains, ditches or rivers by using appropriate barriers. After entering into surface water, drains or underground inform the appropriate authorities.

Methods for cleaning up

Shovel into a suitable, clearly marked container for disposal in accordance with local regulations.

7. Handling and Storage

Handling

When using do not eat or drink. When handling product in heavy containers safety footwear should be worn and proper handling equipment should be used. Prevent spillages or oil mist.
Notice for fire and explosion protection: Fire group B according to EN 2. Oily clothes or papers must be handled like self-combusting substances.

Storage

Warehouse and containers: Avoid direct sunlight, heat sources and strong oxidising agents. Keep containers closed. Comply with local regulations for storage of water endangering products and inflammable products. Do not store together with strong oxidising agents.

8. Exposure controls/personal protection

Informations on engineering measures

Keep national regulations concerning inflammable and water endangering products.

Occupational exposures to be controlled

None. Avoid oil mist.

Personal protection

Respiratory protection:
Not normally required. Use suction plant in case of oil mist.
Hand protection:
Neoprene, PVC or nitril rubber gloves if splashes are likely to occur and if applicable. Otherwise use cream against skin irritations.
Eye protection:
Safety spectacles if splashes are likely to occur.
Skin protection:
Minimise all forms of skin contact. Recommendation: Wear overalls.
Hygiene measures:
Avoid prolonged and repeated contact with skin. Remove contaminated clothes. Skin protection during work and skin care after work. Don't keep oily rags in your pockets. Keep away from foodstuff, beverages and animal feeding stuffs. When using do not eat, drink, smoke and do not take snuff.

9. Physical and chemical properties

Appearance

Semi-solid, colour brown, characteristic odour.

Safety relevant data

Dropping point (DIN ISO 2176)	> 190 °C
Flashpoint (DIN ISO 2592)	approx. 200 °C (Base oil)
Density (15 °C)	approx. 900 kg/m^3
Solubility in water (20 °C)	almost insoluble

*) previous denotation: Arcanol L135V

10. Stability and reactivity

Conditions to avoid
Stable under normal use conditions.
Materials to avoid
Strong acids and strong oxidising agents.
Hazardous decomposition products
None during normal handling and storage (see point 5 too).
Thermal decomposition possible if maximum operating temperature is exceeded.
Other information
None.

11. Toxicological information

Toxicological data
LD_{50} oral (rat): > 2000 mg/kg (literature, similar products).
Known human effects
no negative effects known.
Other information
Expected to be slightly skin irritant after repeated exposition. Not expected to be a skin sensitiser. Prolonged or repeated contact may cause defatting of the skin which can lead to dermatitis and may make the skin more susceptible to irritation and penetration by other materials.
Product is based on refined mineral oils. Due to kind of raffination carcinogenic effects are not to be expected. Other compounds are not known to be associated with carcinogenic effects. Toxicological information given is based on a knowledge of the toxicology of similar products and of toxicology of components.

12. Ecological information

Degradability and accumulation
Product is not readily biodegradable.
Mobility
Floats on water. Semi-solid under most environmental conditions. No indication of bioaccumulation known.
Ecotoxicity
No data available. Product is removable nearly entirely from sewage plants mechanically. Nevertheless prevent from spreading or entering into drains, ditches or rivers.
Other information
Avoid spillage.

13. Disposal considerations

Product
Must not be disposed of together with household garbage.
Recommendation: Dispose to licensed disposal contractor (recycling or incineration).
Waste disposal No., EWC-Code: 120112 Used waxes and greases.
Contaminated packaging
Recommendation: Drain container thoroughly. Dispose to licensed disposal contractor. Cleaning by disposal contractor for recycling.

14. Transport information

Not dangerous for conveyance.

Land transport ADR/RID and GGVS/GGVE:	Not dangerous.
Inland water transport ADN/ADNR:	Not dangerous.
Sea transport IMDG/GGVSee:	Not dangerous.
Air transport ICAO-TI and IATA-DGR:	Not dangerous.

15. Regulatory information

EC classification
Not classified as dangerous.
National regulations
Germany: Gefahrstoffverordnung: Not classified as dangerous.
Störfallverordnung: Not listed in enclosure II.
VbF: Not classified.
TA-Luft: Organic compounds, Class III, not applicable.
Water endangering group: WGK 1 weakly water endangering
(according to VwVwS 17.05.1999).

16. Other information

This information is based on our current knowledge of test results, comparison with similar products and information from subdeliverer. Technical data are health, safety and environmental information only. They are no technical product information.
Additional information:
Concawe report 5/87 Health Aspects of Lubricants, german translation DGMK-Bericht 400-7, source of supply Deutsche Gesellschaft für Erdöl, Erdgas und Kohle e. V., Steinstrasse 7, D-20095 Hamburg, Tel. 0049-40-326468.

*) previous denotation: Arcanol L135V