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Environmentally friendly turbine bearing lubricant

RIVOLTA S.K.D. 3817 is a synthetic bearing lubricant that was developed especially for use in water turbines. Our product is formulated by a metal soap and a synthetic base oil. Beside this, S.K.D. 3817 contains biodegradable additives to improve ageing stability, corrosion prevention as well as lubricating properties, so that a reliable lubrication of the water turbine is guaranteed.

RIVOLTA S.K.D. 3817 is arranged in a way, that the outstanding environmental acceptability is combined with a high technical efficiency.

The property

- environmentally friendly
- high water resistance high adhesive stability
- pumpability
- reduce friction and wear
- operative temperature range from - 55°C up to + 100°C
- no classification necessary according to the German hazardous substances ordinance

will give the following benefits

- safety (e.g. when water turbine bearings are lubricated) in cases where the lubricant can get into the environment because of lubricant loss.
- the lubricant film will not be washed off from turbine parts which e.g. can come in contact with water or are operated in a wet atmosphere. The functionality of the components will be maintained.
- good pumpable at low temperatures because of the favourable flow-pressure characteristic. Can be used in automatic lubricating systems.
- metal contact of lubricated turbine parts is minimized. Service life of loaded components is increased.
- qualified for use in changing surrounding conditions because of the wide operative temperature range.
- S.K.D. 3817 stands for a maximum of personal protection. The appropriate use of S.K.D. 3817 does not create any risks for the workers' health.

Rivolta S.K.D. 3817, the environmentally friendly turbine bearing lubricant with high technical efficiency



Environmentally friendly turbine bearing lubricant

Synthetic grease, made of highly biodegradable synthetic base oil and additives to improve ageing stability, corrosion prevention, oxidation stability and wear protection properties. Colour: beige Odour: mild

Colour. beige			Ouour. IIIIu
Technical data	Unit of meas-	Norm	S.K.D. 3817
	urement		
Density	g/ml	DIN 51757	0.92
Viscosity of base oil at 40°C	mm ² /s	DIN 51562/1	100
NLGI-grade	-	DIN 51818	1
Worked penetration	1/10 mm	DIN ISO 2137	310-340
Δ PW 100,000	1/10 mm		<30
Decrease of worked penetration			
after 100,000 double cycles			
Operative temperature range	°C		-55 up to +100
Dropping point	°C	DIN ISO 2176	>190
Corrosion protection to steel			
(SKF-Emcor)	corrgrade	DIN 51802	0 / 0
Corrosion effect on copper	corrgrade	DIN 51811	1 at 100
Oil separation at 40°C	%	DIN 51817	<1 after 18h
Flow pressure	kPa	DIN 51805	10 at +20°C
	kPa	DIN 51805	50 at -30°C
S.R.VTest [*]		DIN 51834	
Friction coefficient µ	-		0.12
Wear rate ball	mm		0.53
disc	μm		<1.55

* Swing wear test, T=100°C, F=200N, 500,000 load changes

Ecological data			
Mammal toxicity		OECD Guidelines	
	mg/kg	No. 401	>5000
Fish toxicity	g/l	ISO 7346/II	>3.2
Bakteria toxicity	g/l	DIN 38412/27	>10

Applications:
bearings: lubricant for plain bearings, especially at water turbines but also for all other kinds of roller bearings and plain bearings.
slide rails and check rails: in the area of water turbines

bolts, levers, joints

Rivolta S.K.D. 3817 should be used in cases where the lubricant can get into the environment.

- **Compatibility:** Rivolta S.K.D. 3817 is not aggressive to common metals, plastics and lacquers. It is compatible with seals resistant to mineral oils. Do not mix with other products.
- Preparation ofRemove all dirt and old residues as good as possiblelubricating point:

This text contains facts and statements and is determined with our best knowledge and will be checked continuously. These statements are depending - among other reasons - on experiences gained in the industry. We only pass them on without liability. Before using our products you should test the applicability and you should convince yourself about the satisfactory performance. Our application examples and suggestions should not request to violate patent rights.