

THK特有油脂

AFC油脂

- 基础油：高级合成油
- 增稠剂：尿素类



AFC油脂由于其特殊的添加剂以及尿素类增稠剂, 具有高耐微振磨损腐蚀性, 使用高级合成油作为基础油。

【特性】

(1) 高耐微振磨损腐蚀性

AFC油脂在设计上对于防范微振磨损腐蚀具有高度的有效性。

(2) 使用寿命长

与普通的金属皂基油脂不同, AFC油脂在氧化稳定性方面表现优异, 因此可长时间使用, 从而减少了维护工作。

(3) 使用温度范围广

由于使用高级合成油作为基础油, 其润滑性能在-54℃~+177℃的极宽范围内均保持良好。

【代表特征】

项 目	代表特征值	测试方法
增稠剂	尿素类	
基础油	高级合成油	
基础油动粘度：mm ² /s(40℃)	25	JIS K 2220 23
混合稠度 (25℃, 60W)	288	JIS K 2220 7
混和稳定性 (10万W)	341	JIS K 2220 15
滴点 ℃	269	JIS K 2220 8
蒸发量：mass%(99℃, 22h)	0.2	JIS K 2220 10
离油度：mass%(100℃, 24h)	0.6	JIS K 2220 11
铜板腐蚀 (B方法, 100℃, 24h)	合格	JIS K 2220 9
低温扭矩：mN·m (-20℃)	起动	JIS K 2220 18
	旋转	
4球试验 (热粘负荷)：N	3089	ASTM D2596
使用温度范围 ℃	-54~177	
外观颜色	褐色	

【耐微振磨损腐蚀性试验数据】

● AFC油脂的试验数据(滚动面状况的比较)

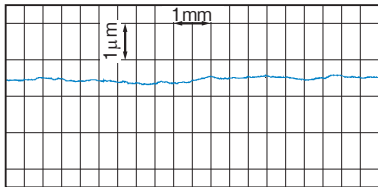
图中的试验数据是与普通轴承用润滑脂的比较试验结果。

〈试验条件〉

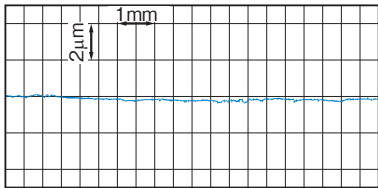
项目	内容
行程	3mm
每分钟的行程	200min^{-1}
总行程数	2.88×10^5 (24小时)
面压	1118MPa
油脂封入量	12g/1LM滑块(每8小时补充)

AFC油脂

运行前

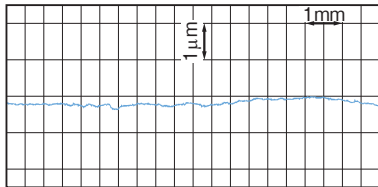


运行后

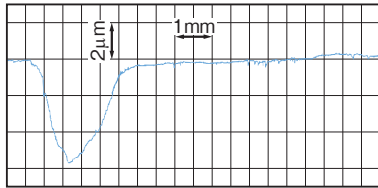


一般轴承用油脂

运行前



运行后



THK AFC Grease

No.1030-T15291

MATERIAL SAFETY DATA SHEET

Note: Read and understand Material Safety Data Sheet before handling or disposing of product.

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THK AFC Grease
PRODUCT TYPE: Lubricating grease
MANUFACTURER'S NAME: THK CO.,LTD.
ADDRESS: 3-11-8, Nishi-Gotanda, Shinagawa-ku, Tokyo, Japan
TELEPHONE NUMBER: 03-5735-0225
EMERGENCY TELEPHONE NUMBER : 03-5735-0225
DATE PREPARED: Mar.31, 2006

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE: Base oil, thickener and additives
CHEMICAL FAMILY : Lubricating Grease.
FORMULA : not applicable
INGREDIENTS AND COMPONENTS(% by mass):
Base oil (Synthetic ester and hydrocarbon oil) 65~75
Thickener (Urea derivatives) 20~30
Additives <5

HAZARDOUS INGREDIENTS :	CAS No.	CONTENTS (%)
NAME		

See Section 8 for exposure limits (if applicable)

SECTION 3. HAZARDS IDENTIFICATION

CLASS NAME OF HAZARDOUS CHEMICALS FOR SDS IN JAPAN: Not applicable
PHYSICAL AND CHEMICAL HAZARDS: Combustible
ADVERSE HUMAN HEALTH EFFECTS: Prolonged and repeated contact may cause skin irritation.
ENVIRONMENTAL EFFECTS: No data available.

SECTION 4. FIRST AID MEASURES

EYES: Immediately flush with water for at least 15 minutes. Get medical attention if eye irritation persists.
SKIN: Remove excess with cloth or paper and wash area thoroughly with soap and water.
INGESTION: Consult a physician. Do not induce vomiting.
INHALATION: Keep the victim warm and quiet. Remove the victim from the contamination immediately to fresh air.
NOTE TO PHYSICIANS: Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

SECTION 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES :
FLASH POINT: 220 °C METHOD: Seta Flash Method
FLAMMABLE LIMITS: LFL: Not applicable. UFL: Not applicable.
AUTOIGNITION TEMPERATURE: No data available
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition and combustion may produce carbon monoxide and/or carbon dioxide.
EXTINGUISH MEDIA: Dry chemical, Water fog, CO₂, Foam, Sand/Earth
FIRE FIGHTING INSTRUCTIONS: Dense smoke. Fire fighter wear an approved self-contained breathing apparatus. Do not use water except fog.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PROCEDURE FOR CLEAN-UP: Transfer bulk of mixture into another container. Absorb residue with an inert material such as earth, sand and vermiculite.
WASTE DISPOSAL: Sweep up and dispose solid waste in accordance with local, state and federal regulations.
Dispose of in accordance with all applicable federal, state and local regulations.

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No.1030-T15291

SECTION 7. HANDLING AND STORAGE

HANDLING: Contact with eye may cause irritation. Use protective glasses or other devices to avoid contact with eyes.
Contact with skin may cause irritation. Use protective gloves to avoid skin contact.
Do not swallow. (Eating product cause diarrhea and vomiting.)
Wear gloves to avoid injury on hands at opening the container.
Keep out reach of children.

STORAGE: Keep container closed until ready for use. Storage away from fire source or sunlight and in cool dry area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS: None

ENGINEERING MEASURES: None

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Good general ventilation should be sufficient for most condition.

EYE PROTECTION: Chemical safety goggles and if handled hot, full face shield.

HAND AND BODY PROTECTION: Protective gloves, rubber or plastic oil resistant.

OTHER PROTECTIVE EQUIPMENT: None

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Light brown, paste, Slight odor
VAPOR PRESSURE:	Not applicable
VAPOR DENSITY(AIR=1):	Not applicable
SPECIFIC GRAVITY(H₂O=1):	0.98
SOLUBILITY IN WATER:	Negligible
SOLUBILITY IN —:	Not applicable
EVAPORATION RATE (n-Butyl Acetate=1)	Slower
MELTING POINT °C:	Not applicable
DROPPING POINT °C:	258°C
BOILING POINT:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

STABILITY :(CONDITION TO AVOID) Product is stable under normal condition. Avoid over heating.

INCOMPATIBILITY :(SPECIFIC MATERIALS TO AVOID) Strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxide of nitrogen, sulfur, molybdenum, zinc, calcium.

HAZARDOUS POLYMERIZATION: None

REACTIVITY WITH WATER: None

SECTION 11. TOXICOLOGICAL INFORMATION

CORROSIVE AND IRRITANT PROPERTIES:	No data available
ALLERGENIC AND SENSITIZING EFFECTS:	No data available
ACUTE TOXICITY:	No data available
SUB-CHRONIC TOXICITY:	No data available
CHRONIC TOXICITY:	Prolonged and repeated skin contact may cause irritation.
CARCINOGENIC EFFECT:	Not listed IARC, NTP, ACGIH.
MUTAGENIC EFFECTS:	No data available
EFFECTS ON THE REPRODUCTIVE SYSTEM:	No data available
TERATOGENIC EFFECTS:	No data available

SECTION 12. ECOLOGICAL INFORMATION

BIODEGRABILITY: No data available

BIOACCUMULATION: No data available

FISH TOXICITY: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Incinerate in accordance with applicable regulation.

ATTENTION: Do not use pressure to empty this container. When empty, container may have vapor or product residue.
Do not cut, puncture or weld on near the drum.

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No.1030-T15291

SECTION 14. TRANSPORT INFORMATION

DOT Proper Shipping Name:	Not applicable.
UN Number:	Not applicable.
FIRE SERVICE LAW (JAPAN):	Not applicable.

SECTION 15. REGULATION INFORMATION

Regulatory information with regard to this product in your country or your region should be examined by your own responsibility.

US TSCA (Toxic Substances Control Act):

All components of this product are listed on the TSCA inventory of Chemical Substances.

US OSHA (Occupational Safety and Health Act):

This product is hazardous according to the OSHA Hazard Communication Standard,
29 CFR 1910.1200.

US CERCLA (Comprehensive Environmental Release, Compensation & Liability Act):

This product contains no CERCLA Hazardous Substances.

US SARA (Superfund Amendment & Reauthorization Act) Title III:

This product contains no Extremely Hazardous Substances.

SARA Hazard Categories (311/312): None

SARA Toxic Release Inventory (TRI) (313):None

SECTION 16. OTHER INFORMATION

REFERENCE:

CMA Interim Guideline for the Preparation of MSDS. Chapter 7 : MSDS Examples.

ACGIH Threshold Limit Values for Chemical Substances in the Work Environment. (1998-1999)

This MSDS is an addition and complementary document beside the technical data sheet.

The information is based upon our knowledge about the product at the date of edition.

Since we cannot anticipate or control the different conditions under which these information or our product may be used,
we make no guarantee that recommendations will be adequate for all individuals and situations.