

中鲁制动液
SinLock

通过：美国交通运输部 FMVSS NO.116 DOT 认证
全国工业产品生产许可证(闽)XK18-001-00006
ISO 9001、ISO 14001、OHSAS 18001管理体系认证

产品手册

Product Manual



30年专业制动液供应商

Professional brake fluid supplier for 30 years

简介

Company Profile

中鲁科技是一家专业致力于汽车制动液、防冻液的研制、开发、生产和销售为一体的专业制动液厂家，公司创建以来，投入大量的人力、财力、物力用于新产品研发，公司同时拥有国内领先制动液的生产 and 检测设备。企业取得全国工业产品生产许可证（闽）XK18-001-00006，并通过美国交通运输部 FMVSS NO.116 DOT 认证和 ISO 9001、ISO 14001、OHSAS 18001 管理体系认证，产品通过交通部能源利用监测中心检测合格，成为南安质量技术监督协会会员单位，被评选为“全国质量检验稳定合格产品”。公司致力为整车厂、整机厂和国内著名的润滑油厂家提供优质的制动液系列产品。

不管市场风云变幻，中鲁科技坚持定位于优质制动液的研发和生产。我们不忘初心，精益求精，研发出 HZY6 赛车级制动液。我们坚定相信品质至上的理念，用心服务每一位客户。

我们做的这一切，只是因为：**我们专注制动液品质，让您的行车更安全！**

Sinlook is a Professional brake fluid manufacturer dedicated in the research, development, production and sales of automotive brake fluid and antifreeze. Since founded, we have invested a large number of human, material and financial resources in new products research and development. Meanwhile, we have leading brake fluid production and testing equipments in China. Certifications we obtained: National Industrial Production License (Fujian) xk18-001-00006, FMVSS NO.116 DOT certificated by U.S. department of transportation and ISO9001, ISO 14001, OHSAS1 8001 management system certification. Our products have passed the test of Ministry of transportation energy utilization monitoring center, and our company became the member of Quality and technical supervision association of NAN'AN city. Our products were Entitled as "National Quality inspection stable qualified products" by CAQ. We are committed to providing high quality brake fluid products for automotive OEMS, machine factory and domestic famous lubricating oil factory.

Sinlook stays true to the mission, keep improving and insists on the development and production of high quality brake fluid. We have developed HZY6 racing-grade brake fluid. We always insists the concepts: quality and customer first.

We Focus on providing high quality brake fluid to make your travel safer!



美国交通运输部FMVSS NO.116 DOT认证



30年专业制动液供应商

Professional brake fluid supplier for 30 years



合成型 DOT3

CLASS 3 / FMVSS NO.116 DOT3

采用先进合成工艺，系精选进口聚醇醚基础液、稀释剂及多种高效添加剂精制而成，本产品为离合器专用刹车油，满足美国联邦FMVSS NO.116 DOT3，国际ISO 4925-2005 CLASS3等规格标准要求。

- 良好的高沸点和高温防气锁性能，平衡回流沸点 $\geq 205^{\circ}\text{C}$ ，湿平衡回流沸点 $\geq 140^{\circ}\text{C}$
- 优异的低温流动性能和分水性能。能适应低温和潮湿的环境
- 极佳的密封件兼容性和金属防腐性，安全可靠，性能卓越
- 优良的防锈性、防腐蚀、抗氧化性能，延长油品的使用寿命

技术规格：

符合美国联邦汽车标准FMVSS NO.116（美国交通部规格）DOT3及（美国汽车工程协会标准）SAEJ1703规格

Synthetic DOT3 CLASS 3/ FMVSS NO.116 DOT3

It is made from imported polyether ester base liquid, Diluent and a variety of high - efficiency additives by Advanced full synthesis process. This brake oil is special for clutch. Meet the specification requirements of US federal FMVSS NO.116 DOT3 and international ISO4925-2005 CLASS 3.

- Good performance at high boiling point and high temperature anti - air lock. Equilibrium Reflux Boiling Point $\geq 205^{\circ}\text{C}$, Wet boiling point $\geq 140^{\circ}\text{C}$,
- Good fluidity at low temperature and water separation performance. Strong adaptive ability to Low temperature and humid environment.
- Excellent seal compatibility and non-corrosion to metals. Safe and reliable.
- Excellent Anti-rust, antioxidant and anti-corrosion Superior anti-corrosion, anti-rust, anti-oxidation performance, extend service life of oil.

Specifications:

Meets US Federal automobile standards: FMVSS NO.116 (US Department of Transportation) DOT3 and (SAE standard) SAEJ1703.

检验项目 Test Description		GB12981-2012 DOT3	检验方法 Test Condition
平衡回流沸点/ERBP	≤	205°C	SH/T 0430
湿沸点/WERBP	≤	140°C	GB12981-2012 App. C ^a
运动粘度, mm ² /s	-40°C, ≥	1500	GB/T 265
Vicosity, mm ² /s	100°C, ≤	1.5	
蒸发性能 Evaporation (100°C±2°C, 168h±2h)			GB12981-2012 App. H ^a
蒸发损失质量分数 Loss in weight / %	≥	80	
残余物性质 Residual appearance		沉淀中不含有颗粒和摩蚀物 Not gritty	
残余物倾点 Pour point of residue / %	≥	-5	GB/T12981-2012 App. D
PH值 / PH		7.0-11.5	
腐蚀性 Corrosion (100°C±2°C, 120h±2 h) 质量变化 Mass change mg/cm ²			GB12981-2012 App. F
镀锡铁片 Tinned iron	≥	±0.2	
铸铁 Cast iron	≥	±0.2	
钢 Steel	≥	±0.2	
铝 Aluminium	≥	±0.1	
黄铜 Brass	≥	±0.4	
紫铜 Copper	≥	±0.4	
锌 Zinc	≥	±0.4	



全合成 DOT4

CLASS 4 / FMVSS NO.116 DOT4

采用先进全合成工艺，系精选进口聚醇醚酯基础液、稀释剂及多种高效添加剂精制而成，满足美国联邦FMVSS NO.116 DOT4，国际ISO 4925-2005 CLASS4等规格标准要求。。

- 良好的高沸点和高温防气锁性能，平衡回流沸点 $\geq 230^{\circ}\text{C}$ ，湿平衡回流沸点 $\geq 155^{\circ}\text{C}$
- 优异的低温流动性能和分水性能。能适应低温和潮湿的环境
- 极佳的密封件兼容性和金属防腐性，安全可靠，性能卓越
- 优良的防锈性、防腐蚀、抗氧化性能，延长油品的使用寿命

技术规格：

符合美国联邦汽车标准FMVSS NO.116（美国交通部规格）DOT4及（美国汽车工程协会标准）SAEJ1704规格

Full-synthetic DOT4 CLASS 4/ FMVSS NO.116 DOT4

It is made from imported polyether ester base liquid, Diluent and a variety of high - efficiency additives by Advanced full synthesis process. Meet the specification requirements of US federal FMVSS NO.116 DOT 4 and international ISO4925-2005 CLASS 4.

- Good performance at high boiling point and high temperature anti - air lock. Equilibrium Reflux Boiling Point $\geq 250^{\circ}\text{C}$, Wet boiling point $\geq 155^{\circ}\text{C}$,
- Good fluidity at low temperature and water separation performance. strong adaptive ability to Low temperature and humid environment.
- Excellent seal compatibility and non-corrosion to metals. Safe and reliable.
- Excellent Anti-rust, antioxidant and anti-corrosion. Superior anti-corrosion, anti-rust, anti-oxidation performance, extend service life of oil.

Specifications:

Meets US Federal automobile standards: FMVSS NO.116 (US Department of Transportation) DOT 4 and (SAE standard) SAEJ1704.

检验项目 Test Description		GB12981-2012	检验方法 Test Condition
		DOT4	
平衡回流沸点/ERBP	≤	230°C	SH/T 0430
湿沸点/WERBP	≤	155°C	GB12981-2012 App. C ^a
运动粘度, mm ² /s	-40°C, ≥	1500	GB/T 265
Vicosity, mm ² /s	100°C, ≤	1.5	
蒸发性能 Evaporation (100°C±2°C, 168h±2h)			GB12981-2012 App. H ^a
蒸发损失质量分数 Loss in weight / %	≥	80	
残余物性质 Residual appearance		沉淀中不含有颗粒和摩蚀物 Not gritty	
残余物倾点 Pour point of residue / %	≥	-5	GB/T12981-2012 App. D
PH值 / PH		7.0-11.5	
腐蚀性 Corrosion (100°C±2°C, 120h±2 h) 质量变化 Mass change mg/cm ²			GB12981-2012 App. F
镀锡铁片 Tinned iron	≥	±0.2	
铸铁 Cast iron	≥	±0.2	
钢 Steel	≥	±0.2	
铝 Aluminium	≥	±0.1	
黄铜 Brass	≥	±0.4	
紫铜 Copper	≥	±0.4	
锌 Zinc	≥	±0.4	



全合成 DOT5.1

CLASS 5-1 / FMVSS NO.116 DOT5.1

采用先进全合成工艺，系精选进口聚醇醚酯基础液、稀释剂及多种高效添加剂精制而成，满足美国联邦FMVSS NO.116 DOT5.1，国际ISO 4925-2005 CLASS5-1等规格标准要求。

- 良好的高沸点和高温防气锁性能，平衡回流沸点 $\geq 260^{\circ}\text{C}$ ，湿平衡回流沸点 $\geq 180^{\circ}\text{C}$
- 优异的低温流动性能和分水性能。能适应低温和潮湿的环境
- 极佳的密封件兼容性和金属防腐性，安全可靠，性能卓越
- 优良的防锈性、防腐蚀、抗氧化性能，延长油品的使用寿命

技术规格：

符合美国联邦汽车标准FMVSS NO.116（美国交通部规格）DOT5.1

Full-synthetic **DOT5.1** CLASS 5-1/ FMVSS NO.116 DOT5.1

It is made from imported polyether ester base liquid, Diluent and a variety of high - efficiency additives by Advanced full synthesis process. Meet the specification requirements of US federal FMVSS NO.116 DOT5.1 and international ISO4925-2005 CLASS 5-1.

- Good performance at high boiling point and high temperature anti - air lock. Equilibrium Reflux Boiling Point $\geq 260^{\circ}\text{C}$, Wet boiling point $\geq 180^{\circ}\text{C}$,
- Good fluidity at low temperature and water separation performance. Strong adaptive ability to Low temperature and humid environment.
- Excellent seal compatibility and non-corrosion to metals. Safe and reliable.
- Excellent Anti-rust ,antioxidant and anti-corrosion Superior anti-corrosion, anti-rust, anti-oxidation performance, extend service life of oil.

Specifications:

Meets US Federal automobile standards: FMVSS NO.116 (US Department of Transportation) DOT 5.1

检验项目 Test Description		GB12981-2012 DOT5.1	检验方法 Test Condition
平衡回流沸点/ERBP	\leq	260°C	SH/T 0430
湿沸点/WERBP	\leq	180°C	GB12981-2012 App. C ^a
运动粘度, mm ² /s	-40 $^{\circ}\text{C}$, \geq	900	GB/T 265
Vicosity, mm ² /s	100 $^{\circ}\text{C}$, \leq	1.5	
蒸发性能 Evaporation (100 $^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 168h ± 2 h)			GB12981-2012 App. H ^a
蒸发损失质量分数 Loss in weight / %	\geq	80	
残余物性质 Residual appearance		沉淀中不含有颗粒和摩蚀物 Not gritty	
残余物倾点 Pour point of residue / %	\geq	-5	GB/T12981-2012 App. D
PH值 / PH		7.0-11.5	
腐蚀性 Corrosion (100 $^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 120h ± 2 h) 质量变化 Mass change mg/cm ²			GB12981-2012 App. F
镀锡铁片 Tinned iron	\geq	± 0.2	
铸铁 Cast iron	\geq	± 0.2	
钢 Steel	\geq	± 0.2	
铝 Aluminium	\geq	± 0.1	
黄铜 Brass	\geq	± 0.4	
紫铜 Copper	\geq	± 0.4	
锌 Zinc	\geq	± 0.4	



全合成 HZY6

CLASS 6

采用先进全合成工艺，系精选进口聚醇醚酯基础液、稀释剂及多种高效添加剂精制而成。
 执行标准：GB 12981-2012HZY6满足GB 12981-2012HZY6，国际ISO 4925-2005 CLASS6等规格标准要求。

- 衡回流沸点 $\geq 250^{\circ}\text{C}$ ，湿平衡回流沸点 $\geq 165^{\circ}\text{C}$ ， -40°C 运动粘度 $\leq 750\text{mm}^2/\text{s}$
- 良好的高温抗气阻性，确保刹车平衡、安全
- 极佳的低温流动性，低温时不产生液阻及凝固，确保刹车灵活
- 良好的防锈性，不腐蚀制动泵及各机件
- 极佳的橡胶配伍性，不腐蚀制动皮碗
- 特别适用于极寒或高原地区使用

Full-synthetic HZY6 CLASS 6

It is made from imported polyether ester base liquid, diluent and a variety of high - efficiency additives by Advanced full synthesis process. Standard: GB 12981-2012HZY, Meet specifications and standards of GB 12981-2012HZY6, international ISO 4925-2005 CLASS 6 etc.

- Equilibrium Reflux Boiling Point $\geq 250^{\circ}\text{C}$, Wet boiling point $\geq 165^{\circ}\text{C}$, -40°C Kinematic viscosity $\leq 750\text{mm}^2/\text{s}$
- Good air resistance at high temperature, ensure brake balance and safty.
- Excellent low temperature fluidity, No liquid resistance and no solidification at low temperature, Keep the brake flexible.
- Good rust resistance, No corrosion to brake pump and other parts.
- Excellent rubber compatibility, No corrosion to brake cup.
- Especially suitable for extreme cold or plateau areas.

检验项目 Test Description		GB12981-2012 HZY6	检验方法 Test Condition
平衡回流沸点/ERBP	≤	250°C	SH/T 0430
湿沸点/WERBP	≤	165°C	GB12981-2012 App. C ^a
运动粘度, mm ² /s	-40°C, ≥	750	GB/T 265
Vicosity, mm ² /s	100°C, ≤	1.5	
蒸发性能 Evaporation (100°C±2°C , 168h±2h)			GB12981-2012 App. H ^a
蒸发损失质量分数 Loss in weight / %	≥	80	
残余物性质 Residual appearance		沉淀中不含有颗粒和摩蚀物 Not gritty	
残余物倾点 Pour point of residue / %	≥	-5	GB/T12981-2012 App. D
PH值 / PH		7.0-11.5	
腐蚀性 Corrosion (100°C±2°C , 120h±2 h) 质量变化 Mass change mg/cm ²			GB12981-2012 App. F
镀锡铁片 Tinned iron	≥	±0.2	
铸铁 Cast iron	≥	±0.2	
钢 Steel	≥	±0.2	
铝 Aluminium	≥	±0.1	
黄铜 Brass	≥	±0.4	
紫铜 Copper	≥	±0.4	
锌 Zinc	≥	±0.4	



合成型 防冻冷却液

-25 °C -35 °C -45 °C

独特的羧酸盐技术

产品概述：

- 采用高质量冷冻剂，提取了来自德国BASF的乙二醇配置的浓缩液
- 含有羧酸盐缓蚀剂（有机羧酸盐技术）
- 高效防护发动机（特别是重负荷铝发动机）的结冻，锈蚀，防止结垢
- 羧酸盐冷却剂与VW TL774-D/F（G12）所要求的标准一致

产品特性：

- 有效地冷却发动机
- 有效保护冷却系统，抗腐蚀、抗结垢
- 不损害橡胶和塑料制成的橡胶软管和密封胶

技术规格：

符合国际标准：ASTM D-3306，D4985，SAE J1034，符合：奥迪TL-774-D/F，康明斯系列：N14，奔驰MB325.3，福特WSS-M97B44，通用汽车6277M，沃克斯豪尔130100 QL，五十铃，神钢，小松，捷豹WSS-M97B44-D/CMR 8229，Karosa路虎，马自达MEZ，雷诺汽车/卡车41-01-001/S D型，桑塔纳，斯柯达，大众等众多车型要求。

Synthetic antifreeze coolant liquid -25 °C -35 °C -45 °C Unique carboxylate technology

Product description:

- Use high quality refrigerant, concentrates extracted from ethylene glycol from BASF, Germany.
- Contains carboxylate corrosion inhibitor (Organic carboxylate technology)
- Highly effective protection against engine (Especially heavy duty aluminum engines) freezing, corrosion and fouling.
- Carboxylate coolant is in accordance with VW TL774-D/F (G12) standard

Product features:

- Effectively cool the engine
- Effectively protect the cooling system, Resistant to corrosion, Anti fouling.
- Do not damage rubber hoses and seals that made of rubber and plastic.

Technique Specification:

In line with international standards: ASTM D-3306, D4985, SAE J1034, Meet Numerous vehicle requirements such as: Audi TL-774-D/F, Commins series: N14, Benz MB325.3, Ford WSS-M97B44, GM6277M, Vauxhall 130100QL, Isuzu, Kobelco, Komatsu, Jaguar WSS-M97B44-D/CMR8229, Karosa Land-rover, Mazda MEZ, RNO cars / trucks 41-01-001/S D. Santana, Skoda, Volkswagen etc.

产品型号 Product Model	-25 °C	-35 °C	-45 °C
冰点典型值 Typical freezing point °C	-26.5 °C	-36.5 °C	-46.5 °C
沸点典型值 Typical boiling point °C	109 °C	112 °C	115 °C
密度 Density (20°C) kg/m ³ (ρ)	1.065	1.075	1.085
气味 Odor	无刺激性异味 Non-irritating odor	无刺激性异味 Non-irritating odor	无刺激性异味 Non-irritating odor
PH值/PH (50%蒸馏水Distilled water)	7.5-11.0	7.5-11.0	7.5-11.0
氯含量 Chlorinity mg/kg	≥60	≥60	≥60
泡沫倾向 泡沫体积 Foam volume(≥)ml	150	150	150
Foam tend 泡沫时间 Foam time (≥)s	5.0	5.0	5.0
玻璃器皿 腐蚀 Glassware corrosion	紫铜 Copper	+10	+10
	黄铜 Brass	+10	+10
	铸铝 Cast aluminum	+30	+30
	钢 Steel	+10	+10
	铸铁 Cast iron	+10	+10
	焊锡 Tin soldering	+30	+30

1

专业专注 只为安心品质

- 中鲁科技是获国家生产许可认证和美国交通运输部FMVSS NO.116 DOT的双重认证，集研发、制造、销售、服务为一体的专业制动液生产企业。
- 以严谨的态度对待每一瓶产品，以认真的精神管控每一个细节。
- 技术力量雄厚，工艺手段精良，生产及检测设备完善。

2

精心设计 只为用户体验

- 30年来，一直专注于汽车刹车养护领域。
- 以严谨的态度对待每一瓶产品，精心设计每一个细节，让客户用着更舒心。
- “让您的行车更安全”纯粹的初心，深耕于研发创新汽车制动液，为安全出行保驾护航！

3

分享共赢 让您无后顾之忧

- 优良的品质、专业的服务。
- 专业营销及技术培训，让您省力、省事，省心。

1

Professional and dedicated only for quality assurance

- Sinlook is a professional brake fluid manufacturing enterprises covering R&D, manufacturing, sales and after-sale service, has achieved manufacture permit & certification by national related department and FMVSS NO.116 DOT certification by U.S. department of transportation.
- We strive every detail with a rigorous attitude to make sure our customers receive satisfactory products and services.
- With strong technical force, sophisticated manufacturing processes, advanced production and testing equipment

2

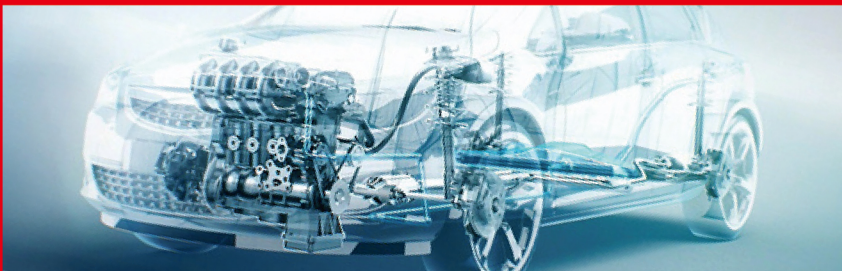
well-designed only for user experience

- focus on Car brake maintenance field for 30 years.
- We strive every detail with a rigorous attitude to make sure our customers receive satisfactory products and services.
- Our original intention was to Escort for safe travel for you by Research and development of innovative automotive brake fluid.

3

Sharing & win-win relieve your worries.

- Excellent quality and professional service
- Professional marketing and technical training, make it more convenient for you.



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