



HFA型液压液  
HFC型液压液  
HFD型液压液

# FIRE-RESISTANT HYDRAULIC FLUIDS

## 抗燃液压



**PETROFER**  
industrial oils and chemicals



# FIRE-RESISTANT HYDRAULIC FLUIDS 抗燃液压

Hydraulic oils are commonly made of combustible mineral oils. In areas with a high risk of fire or explosion, mineral or hydraulic oils represent a significant safety hazard. Consequently, PETROFER has a full range of fire-resistant hydraulic fluids and fire-retardant hydraulic fluids of various viscosities. These products have been continually improved over the past 50 years, resulting in PETROFER being a market leader in this technology. Accordingly, our modern fire-resistant fluids and fire retardant hydraulic fluids do not only fulfill the primary task of pressure transmission; furthermore, they have the highest standard of fire prevention, anti-wear properties, corrosion inhibition and long term resistance against microbial attack. We also hold many OEM approvals for the product range.

液压油通常由可燃矿物油制成。在火灾或爆炸风险高的地区，矿物油代表着重大的安全隐患。德润宝拥有全系列的各种粘度的耐火液压油和阻燃液压油。这些产品在过去 50 余年中不断改进，使 PETROFER 成为该技术的市场领导者。我们现代的耐火油和阻燃液压油有效地完成了压力传输的主要任务；同时，它们具有高标准的防火、抗磨损性能、腐蚀抑制和对微生物攻击的长期抵抗力。我们持有该产品系列的许多 OEM 认证。



# HFA HYDRAULIC FLUID HFA型液压油

为了满足对液压油的各种需求，德润宝开发了卓越的水液压解决方案。我们的现代化产品满足具有挑战性的技术和生态要求，并获得知名原始设备制造商的认可。此外，我们还提供矿物油和酯基HFA-E流体以及HFA-S流体。

In order to meet the various demands on hydraulic fluids, PETROFER has developed superior water-hydraulic solutions. Our modern products meet challenging technical and ecological requirements and are recognized by renowned original equipment manufacturers. In addition, we offer mineral oil and ester-based HFA-E fluids as well as HFA-S fluids.

## HFA-S 水力学用全合成浓缩液 HFA-S Fully Synthetic Concentrates for Hydraulics

| PRODUCT MODEL<br>产品种类 | APPLICATION RANGE<br>应用范围   | PRODUCT CERTIFICATION<br>认证   | CONCENTRATION<br>浓度 |
|-----------------------|---|---|---------------------|
| ULTRA-PRESS 5         | 合成液压油，尤其适用于液压成型<br>Synthetic hydraulic fluids, especially for hydroforming  | 7th Lux, 根据RAG规范的<br>间隙腐蚀试验报告<br>7th Lux, Interstitial corrosion<br>test report according to RAG<br>specification | 2-5%                |
| ULTRA-PRESS 20        | 适用于采矿和工业（钢厂、液压机）<br>的合成液压油<br>Synthetic hydraulic fluids for mining<br>and industry (steel mills, hydraulic<br>presses) |   | 2-5%                |

## HFA-E 水力学用乳化浓缩液 HFA-E Emulsion Concentrate for Hydraulics

| PRODUCT MODEL<br>产品种类 | APPLICATION RANGE<br>应用范围  | PRODUCT CERTIFICATION<br>认证   | CONCENTRATION<br>浓度 |
|-----------------------|--|---|---------------------|
| ULTRA-SAFE 10 MPL     | 采矿和工业用矿物油基液压油<br>Mineral oil-based hydraulic fluids<br>for mining and industrial applica-<br>tions   | 波兰中央矿业研究所 (GIG),<br>俄罗斯联邦国家标准认证<br>(GOST)   | 2-5%                |
| ULTRA-SAFE 10 E       | 适用于采矿和工业的酯基液压油,<br>具有优异的生物降解性<br>Ester-based hydraulic fluids for<br>mining and industry with excellent<br>biodegradability  | (第七次卢森堡报告) 7th<br>Lux. report, (德国玛珂公司)<br>MARCO, Joy approval, 波兰<br>法佐斯公司 (FAZOS), (德<br>国蒂芬巴赫公司) Tiefen-<br>bach, (俄罗斯联邦国家标准<br>认证) GOST | 2-5%                |
| ULTRA-SAFE 10 EF      | 适用于钢厂、锻压机和采矿的<br>无甲醛酯基液压油<br>Formaldehyde-free ester-based<br>hydraulic fluids for steel mills,<br>forging presses and mining  |   | 2-5%                |
| ULTRA-SAFE 15 SI      | 酯基高性能液压油，适用于采矿和工<br>业，具有优异的生物降解性，符合RAG<br>标准的缝隙腐蚀试验<br>Ester-based high-performance<br>hydraulic fluids for mining and<br>industry with excellent biodegrad-<br>ability and compliance with RAG<br>standard crevice corrosion test | (第七次卢森堡报告) 7th<br>Lux. report, (卡特彼勒公<br>司) Caterpillar, (德国玛珂公<br>司) MARCO, (德国蒂芬巴赫<br>公司) Tiefenbach, (俄罗斯<br>联邦国家标准认证) GOST              | 2-5%                |



# HFA HYDRAULIC FLUID HFA 型液压液

为了满足对液压油的各种需求，德润宝开发了卓越的水液压解决方案。我们的现代化产品满足具有挑战性的技术和生态要求，并获得知名原始设备制造商的认可。此外，我们还提供矿物油和酯基HFA-E流体以及HFA-S流体。

In order to meet the various demands on hydraulic fluids, PETROFER has developed superior water-hydraulic solutions. Our modern products meet challenging technical and ecological requirements and are recognized by renowned original equipment manufacturers. In addition, we offer mineral oil and ester-based HFA-E fluids as well as HFA-S fluids.

## 防冻防腐蚀剂 Antifreeze and Anti-corrosion agent

| TYPE<br>产品种类       | APPLICATION RANGE<br>应用范围  | PRODUCT CERTIFICATION<br>认证                      |
|--------------------|--|--|
| ULTRA-FREEZE AF 45 | 贮存液压元件，如缸，泵，阀门<br>校正钢瓶、泵、阀门等<br>热交换器，例如用于建筑物冷却<br><br>Storage of hydraulic components<br>such as cylinders, pumps, valves<br>calibration cylinders, pumps, valves,<br>etc. Heat exchangers, e.g. for<br>building cooling | (卡特彼勒公司) Caterpillar, DMT,<br>(俄罗斯联邦国家标准认证) GOST |



# B HFC TYPE HYDRAULIC FLUID HFC 型液压油

由于原材料的精心挑选，我们的HFC产品达到了非常高的工艺要求。多年来，ULTRA-SAFE系列产品在压铸行业已成功应用。在航海军工业，它也有许多进一步的应用。多年来，德润宝与压铸行业多家整车厂有着很好的合作关系，并获得了各类重要认证。

Due to the careful selection of raw materials, our HFC products meet very high process requirements. The ULTRA-SAFE product series have been successfully used in the die casting industry for many years. It also has many further applications in the marine and military industries. Over the years, PETROFER has had a very good relationship with many OEMs in the die casting industry and has obtained various important certifications.

## HFC 水-乙二醇液体, 含水量 > 35% HFC Water-glycol-liquid, water content >35%

| PRODUCT MODEL<br>产品种类 | APPLICATION RANGE<br>应用范围   | VISCOSITY AT 40°C [mm <sup>2</sup> /s]<br>粘度40°C |
|-----------------------|---|--|
| ULTRA-SAFE 620        | 铸造<br>钢铁行业<br>矿业<br>根据第七次卢森堡报告进行测试和批准<br>Casting<br>Steel industry<br>Mining industry<br>It has been tested and approved by 7th Lux. report | > 41,0<br>< 45,0                                 |
| ULTRA-SAFE 360        | 铸造<br>钢铁行业<br>矿业<br>粘度增加的液压油<br>Casting<br>Steel industry<br>Mining industry<br>Hydraulic fluids with increased viscosity                   | > 52,0<br>< 60,0                                 |
| ULTRA-SAFE OX 40      | 耐海水的船用液压油<br>Seawater Resistant Marine Hydraulic Fluid  | > 42,0<br>< 46,0                                 |

## HFC-E 水-乙二醇液体, 含水量 < 20%, 抗磨性能优良 HFC-E Water-glycol-liquid, water content <20%, Excellent anti-wear properties

| PRODUCT MODEL<br>产品种类 | APPLICATION RANGE<br>应用范围   | VISCOSITY AT 40°C [mm <sup>2</sup> /s]<br>粘度40°C |
|-----------------------|---|--|
| ULTRA-SAFE E 68       | 采矿, 特别是移动液压<br>隧道施工用掘进机<br>适用于道路建设和林业的机器<br>Mining, especially mobile hydraulic<br>Roadheaders for tunnel construction<br>Machines for road construction and forestry | ISO 68   |



# C HFD TYPE HYDRAULIC FLUID HFD 型液压油

ENVOLUBRIC产品系列是合成的无水液压油，具有与常规液压油相似的液压性能。由于其成分组成，该产品表现出优异的抗老化和水解稳定性以及优异的防腐性能。此外，它还具有高闪点和高自燃温度的优势特点。

The ENVOLUBRIC product series are synthetic, anhydrous hydraulic fluid with hydraulic properties similar to general hydraulic fluids. Due to its composition, the product exhibits excellent ageing and hydrolytic stability as well as excellent corrosion protection. In addition, it is advantageously characterized by a high flash point and high auto-ignition temperature.

## HFD R 基于磷酸酯-U: 基于合成酯 HFD R based on phosphate ester - U: based on synthetic ester

| PRODUCT MODEL<br>产品种类       | APPLICATION RANGE<br>应用范围   | VISCOSITY AT 40°C [mm <sup>2</sup> /s]<br>粘度40°C |
|-----------------------------|---|--|
| ULTRA-SAFE 1120<br>(HFD-R)  | 液力耦合器<br>蒸汽和燃气轮机控制系统<br>Fluid coupling<br>Steam and gas turbine control systems                                 | ISO 46   |
| ENVOLUBRIC HE 46<br>(HFD-U) | 铸造厂<br>钢铁工业<br>移动液压<br>工厂相互认证<br>Foundry<br>Steel industry<br>Mobile hydraulics<br>Factory Mutual Certification | ISO 46   |
| ENVOLUBRIC HE 68<br>(HFD-U) | 铸造厂<br>钢铁工业<br>移动液压<br>工厂相互认证<br>Foundry<br>Steel industry<br>Mobile hydraulics<br>Factory Mutual Certification | ISO 68   |

## HEPG 基于聚乙二醇的产品 HEPG Products based on polyethylene glycol

| PRODUCT MODEL<br>产品种类 | APPLICATION RANGE<br>应用范围   | VISCOSITY AT 40°C [mm <sup>2</sup> /s]<br>粘度40°C |
|-----------------------|---|--|
| ENVOLUBRIC PG 46 NWL  | 铸造厂<br>钢铁工业<br>移动液压<br>Foundry<br>Steel industry<br>Mobile hydraulics | ISO 46   |
| ENVOLUBRIC PG 68 NWL  | 铸造厂<br>钢铁工业<br>移动液压<br>Foundry<br>Steel industry<br>Mobile hydraulics | ISO 68   |

Petrofer is your professional partner for the special Lubricants and fluids for your production process in the world.

德润宝是您在特种化学品和流体工艺中专业的全球合作伙伴。

|    |                                 |         |
|----|---------------------------------|---------|
| 1  | QUENCHANTS                      | 热处理淬火介质 |
| 2  | DIE-CASTING & FORGING MEDIA     | 压铸和锻造   |
| 3  | FIRE-RESISTANT HYDRAULIC FLUIDS | 抗燃液压    |
| 4  | METAL WORKING FLUIDS            | 金属加工介质  |
| 5  | METAL FORMING LUBRICANTS        | 金属成型加工  |
| 6  | INDUSTRIAL LUBRICANTS           | 工业润滑    |
| 7  | INDUSTRIAL CLEANERS             | 工业清洗剂   |
| 8  | RUST PREVENTATIVES              | 防锈剂     |
| 9  | PAPER CHEMICALS                 | 造纸      |
| 10 | GREASES                         | 润滑脂     |

For more information, please visit the website or scan the QR code to obtain.

更多信息请登陆官网或扫描二维码获得。



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