MAGNAFLUX

Product Data Sheet
产品数据表

Carrier II

PETROLEUM BASE SUSPENSION VEHICLE
石油基磁悬液载液

Carrier II is a high-purity petroleum distillate suspension vehicle developed specifically for wet method magnetic particle testing. It provides excellent particle mobility, good suspension stability and enhanced corrosion protection. Carrier II has virtually no odor or fluorescence, as well as a high flash point. It is not considered a flammable liquid according to 29 CFR 1910.106.

Carrier II是专门为湿法磁粉检测开发的高纯度油基载液。该载液能提供优异的磁粉移动性、悬浮稳定性和防腐性。Carrier II基本上没有气味和荧光，高闪点。根据29 CFR 1910.106，认定为非易燃液体。

BENEFITS 优势

Faster, more reliable inspections

快速可靠的检测

- Increases inspection speed and reliability by quickly wetting the entire test surface.

  Carrier II具有快速润湿工件表面的特性，可以加快检测速度及其可靠性。
- Helps 14A particles to move at top speed to discontinuities.

  流动性好，14A磁粉可快速移动到工件表面不连续处。

Decreases maintenance

减少维护成本

- Magnetic particle baths last longer due to slow evaporation, and is less susceptible to contamination from bacteria or fungus.

  Carrier II具有蒸发慢和抗污染的特性，磁悬液使用寿命更长，不容易受到细菌和真菌的影响。
- Protects magnetic particles like 14A from wear and tear and keeps them evenly dispersed throughout the bath.

  Carrier II可保护磁粉，例如14A，增强耐用性，防止剥离和维持磁粉均匀的分散在磁悬液中。

Improves operator comfort

改善操作员的舒适度

- Made with a highly refined oil to reduce skin irritations and eliminate strong odors for a nicer work environment.

  Carrier II选取了高纯度的精炼油，可减少对皮肤的刺激性，以及无强烈刺激性气味，提供一个更舒适的工作环境。

More inspection flexibility

检测适应性强

- Can be used for virtually all magnetic particle inspections with conformance to all major international magnetic particle testing specifications.

  可用于几乎所有的磁粉检测，符合全部的主流国际磁粉检测标准和规范。
- Prevents corrosion of most alloys and eliminates post-inspection processing for corrosion protection.

  Carrier II具有防腐蚀性能，适用于大部分的合金工件，无需在后道工序中增加防腐蚀处理。

Safer to use

使用安全

- Reduces EHS concerns with high flash point and low toxicity.

  Carrier II 具有高闪点和低毒性，减少对EHS的影响。
- Carrier II can go anywhere in an inspection line without worrying about fire or biological hazards.

  Carrier II可以被带入后续检测工艺，无需顾虑防火或者生物危害。

Increases equipment life-span

延长设备使用寿命

- Protects magnetic particle equipment from internal rust and corrosion to keep expensive machines running longer with less downtime.

  Carrier II具有的防锈和防腐蚀性能，可以保护磁粉探伤设备，延长这些昂贵设备的使用寿命和减少故障停机时间。

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FEATURES 特性

- Odorless
  无味
- Provides excellent particle mobility
  磁粉在载液中有优异的移动性
- Good dispersion stability
  良好的分散稳定性
- Protects parts and equipment against corrosion
  防止工件或设备锈蚀
- Provides superior wetting and surface coverage
  提供优异的表面润湿性
- Low maintenance oil-based suspension
  维护方便
- Very low toxicity
  极低毒性
- Nonfluorescent
  无荧光
- High flash point
  高闪点
- Low volatility
  低挥发性
- Wide temperature stability
  温度适用范围宽

SPECIFICATIONS 符合规范

- A-A-59230
- AMS 2641 Type 1
- ASTM E709
- ASTM E1444
- ISO 9934
- ASME BPVS
- MIL-STD-2132
- NAVSEA T9074-AS-GIB-010/271
- NAVSEA 250-1500-1
- Pratt & Whitney PMC 1887

APPLICATIONS 应用

Ideal for 适用于

- Infrequently used systems
  使用频率低的系统
- When maintaining particle concentration is critical
  当非常关注维持磁粉浓度时
- Inspections where corrosion protection is vital
  防锈要求至关重要 的地方
- When water might pose an electrical hazard
  使用水基有潜在电气危险时
- On high strength alloys
  高强度合金

PROPERTIES 属性

Appearance 外观	Transparent liquid 透明液体
Color in UV Light 黑光下颜色	Non-fluorescent 无荧光
Color in Visible Light 白光下颜色	Clear, colorless 清澈透明, 无色
Odor 气味	Minimal, negligible 可忽略的轻微气味
Density 密度	0.8 g/ml / 6.7 lb/gal
Flash Point 闪点	> 200°F / 93°C
Viscosity 粘度 (100°F / 38°C)	2.6 cSt

USE RECOMMENDATIONS 使用推荐

NDT Method 无损检测方法	Magnetic Particle Testing, Wet Method 磁粉检测, 湿法
Temperature range 温度范围 *	55 - 120°F / 12 - 49°C

* Minimum temperature recommendation according to SAE AMS 2641 and ASTM E709.

最小温度要求符合SAE AMS 2641和ASTM E709。

PREPARATION INSTRUCTIONS 配制指南

Fill tank or container to proper level with Carrier II. Weigh out the appropriate amount of magnetic particles and add to the tank or container. Mix for a minimum of 15 minutes, until the particles are completely and evenly dispersed in the suspension. Check concentration before use.

在槽或容器中加入适量的Carrier II，称取适量的磁粉，加入到载液Carrier II中。搅拌15分钟，直到磁粉被完全且均匀的分散开。使用前确认浓度。

INSTRUCTIONS FOR USE 使用指南

Use Carrier II magnetic particle suspensions with appropriate magnetization procedure and equipment. For best results, all components, parts, or areas to be tested should be clean and dry prior to testing to provide an optimal test surface and reduce particle suspension contamination. Particle suspension must be properly mixed and continuously agitated when in use to ensure uniformity and concentration.

使用Carrier II油基载液时，应该采用适当的磁化装置和检测工艺。为达到最佳检测效果，在检测前，需要对所有被检的组件、工件或被检区域进行清洗和干燥，确保有一个最佳的工作面，同时减少磁悬液的污染。必须正确的配制磁悬液，使用过程中不断的搅拌，确保磁悬液的均匀性和浓度。

The suspension can be applied by gently spraying or flooding the area to be tested using the continuous or residual application method. Check particle concentration before use.

采用连续法或剩磁法检测，可以采用温和的喷淋或浇涂的方法施加磁悬液。使用前确认浓度。

Maintenance Recommendations 维护建议

Magnetic particle suspensions need to be properly maintained to provide consistent results. Suspension concentration and contamination should be monitored at least once a day, or according to applicable specifications. Contaminated suspensions, or those in use for an extended length of time, should be replaced. Properly cleaning all components, parts, or inspection areas before testing helps to significantly reduce particle suspension contamination.

为了获得一致的检测结果，应采用正确的方法维护磁悬液。每天至少监测一次磁悬液的浓度和被污染程度，或根据合适的规范进行维护 。被污染的磁悬液，或者超出了使用期限的磁悬液，应及时更换。检测前对工件进行预清洗能有效减少磁悬液的污染。

Particle concentration should be determined after initial bath preparation and at least once a day, or according to applicable specifications, to maintain the proper level of particles in the suspension. The most widely used method of control is by settling volume measurement in a graduated ASTM pear-shaped centrifuge tube.

测试磁悬液的初始浓度，然后每天至少再检测一次，或根据合适的规范，以保持磁悬液中磁粉处于合适的水平。用的最广泛的控制方法是：用ASTM中带刻度的梨形沉淀管测试磁粉沉淀量。推荐使用美国磁通沉淀管（货号8493）：容量100ml，0~1ml范围内最小刻度0.05ml。

REMOVAL 清除

All components, parts, or inspection areas must be properly demagnetized before cleaning to ensure easy particle removal. Cleaned parts may be treated with a temporary film protective coating if longer corrosion protection is required.

检测结束后，为保证磁粉容易被去除，应该先对组件、工件或者被检区域进行退磁。如果有较长的防腐的要求，清洗后需要对工件进行防腐处理。

STORAGE 储存

Store in a well-ventilated area. Protect from sunlight. Refer to Safety Data Sheet for additional storage instructions.

储存在通风良好的区域，远离磁化设备和热源。暴露在高温或强磁场区域，可能会对磁粉的再分散性造成不良影响。

PACKAGING 包装形式

01-2122-50C	20L pail 20升桶
01-2122-60C	20L drum 200升桶

HEALTH AND SAFETY 健康与安全

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the product Safety Data Sheet, which is available at www.magnaflux.cn.

产品使用前请阅读相关的健康和安全信息。完整的健康和安全信息参考www.magnaflux.cn上的SDS（安全数据表）。