Carrier II

NDT-Approved Petroleum Base Suspension Vehicle

Carrier II is a high-purity NDT-approved suspension vehicle developed specifically for wet method magnetic particle testing.

This petroleum distillate carrier oil provides excellent particle mobility, good suspension stability and enhanced corrosion protection for reliable, spec-compliant mag particle inspections.

Carrier II is made with highly refined petroleum oil with virtually no odor for improved operator comfort, while the high flash point and low toxicity reduce EHS concerns.

BENEFITS

Faster, more reliable inspections

- Increases inspection speed and reliability by quickly wetting the entire test surface
- Helps 14A particles to move at top speed to discontinuities

Decreases maintenance

- Magnetic particle baths last longer due to slow evaporation, and is less susceptible to contamination from bacteria or fungus
- Protects magnetic particles like 14A from wear and tear and keeps them evenly dispersed throughout the bath

Safer to use

- Reduces EHS concerns with high flash point and low toxicity
- Carrier II can go anywhere in an inspection line without worrying about fire or biological hazards

More inspection flexibility

- Can be used for virtually all magnetic particle inspections with conformance to all major international magnetic particle testing specifications
- Prevents corrosion of most alloys and eliminates post-inspection processing for corrosion protection

Improves operator comfort

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

Increases equipment life-span

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

FEATURES

- Odorless
- Provides excellent particle mobility
- Good dispersion stability
- Protects parts and equipment against corrosion
- Provides superior wetting and surface coverage
- Low maintenance oil-based suspension
- Very low toxicity
- Nonfluorescent
- High flash point
- Not considered a flammable liquid according to 29 CFR 1910.106
- Low volatility
- Wide temperature stability

SPECIFICATIONS

- 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

Ideal for:

- Infrequently used systems
- When maintaining particle concentration is critical
- Inspections where corrosion protection is vital
- When water might pose an electrical hazard
- On high strength alloys

PROPERTIES

Appearance	Transparent liquid
Color in UV Light	Non-fluorescent
Color in Visible Light	Clear, colorless
Odor	Minimal, negligible
Density	0.8 g/cc / 6.7 lb/gal
Flash Point	> 200°F / 93°C
Viscosity (at 100°F / 38°C)	2.6 cSt

USE RECOMMENDATIONS

NDT Method	Magnetic Particle Testing, Wet Method
Usage Temperature†	42 to 120°F / 6 to 48°C
Storage Temperature	50 to 86°F / 10 to 30°C

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

PREPARATION INSTRUCTIONS

1. Fill tank or container to proper level with Carrier II.

2. Weigh out the appropriate amount of magnetic particles and add to the tank or container.

3. Mix for a minimum of 15 minutes, until the particles are completely and evenly dispersed in the suspension.

4. Check concentration before use.

INSTRUCTIONS FOR USE

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.

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.

Maintenance Recommendations

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.

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.

REMOVAL

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.

STORAGE

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

PACKAGING

5 gal / 18.9 L pail	01-2122-40
20 gal / 75.7 L drum	01-2122-30
55 gal / 208 L drum	01-2122-45

HEALTH AND SAFETY

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.com**.