


APPLICATION BULLETIN

MEVOPUR™ Laser Marking Additives
for Medical Devices and Pharmaceutical Packaging

Laser marking offers several advantages compared to other marking technologies. It yields precise markings without the use of solvents or inks or the need of any pre-treatment, making it a more environmentally friendly process. The marking is abrasion resistant and long-lasting. Laser marking also achieves fast writing speeds at low operating costs. In some cases, additives are required to achieve the desired marking quality by enabling the plastic to absorb laser energy and/or improve the laser marking contrast. Additives can also be used to increase laser marking speed and reduce the needed laser energy.

MEVOPUR laser marking products are additive concentrates or ready-to-use additive formulations specially designed for use in healthcare applications. They are formulated with a non-migratory additive system and yield durable and highly resistant markings that can survive repeated sterilization cycles, regardless of sterilization method. Potential applications include graduation markings for dose-dials, syringes and droppers, and serialization/coding (e.g. UDI) for medical devices and pharmaceutical packaging. Our team of experts provides guidance on the masterbatch or ready-to-use formulation which is suitable to the specific laser marking methodology, regulatory requirements, application and processing settings.

KEY CHARACTERISTICS

- Designed for Nd:YAG lasers operating between 1060-1070 nm
- Available for different polymers including PP, PE, PC, PBT, POM, ABS, MABS
- Manufactured at four ISO 13485 certified sites, providing global consistency and increased security of supply
- Documented change control beyond CAS number reducing risk of change
- Can be designed for dark marking on natural or white/light colored background or light marking on black/dark background

REGULATORY SUPPORT

- Raw materials tested to:
  - ISO 10993-1 and USP <87> <88> biological evaluation
  - European Pharmacopeia 3.1.3/3.1.5 (polyolefin)
  - USP <661.1> (polyethylene)
  - ICH Q3D elemental impurities
- Registered Drug Master File (Type III) and/or Device Master File
- Food contact established with FDA/EU*

* FDA/EU compliance information available upon request; exceptions may occur

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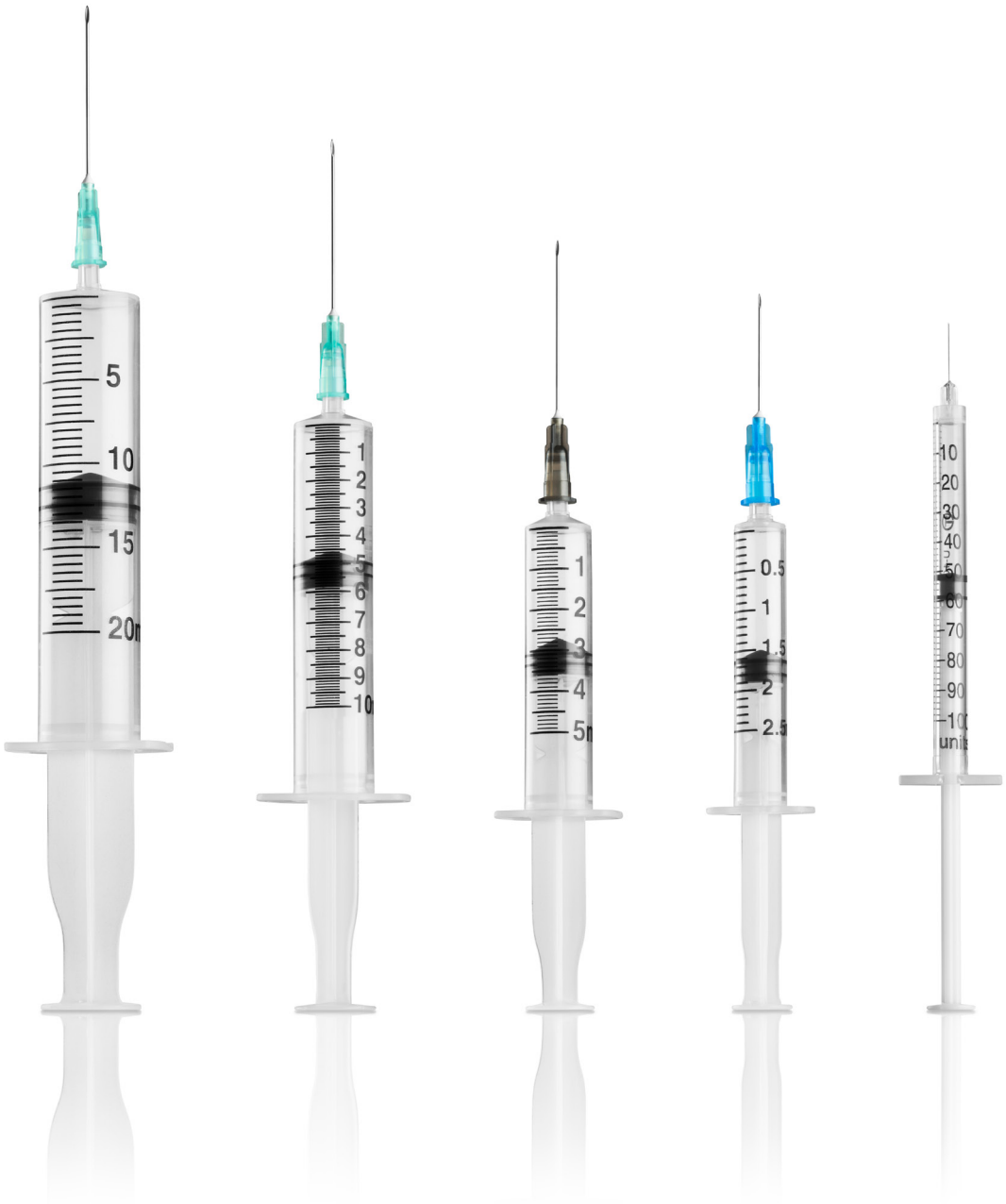

Healthcare use limitations apply—see below. Contact Avient for more information.

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