



Performance Fluid

PF-5056

Introduction

3M™ Performance Fluid PF-5056 is a blend of clear, colorless, fully-fluorinated liquids. Like other 3M Performance Fluids, PF-5056 fluid is chemically and thermally stable, practically non-toxic and nonflammable.

High dielectric strength and excellent materials compatibility make PF-5056 fluid an effective alternative to chlorofluorocarbons (CFCs) in a wide range of applications, from lubricant deposition to low temperature cooling to process solvent applications.

Typical Physical Properties

Not for specification purposes

All values determined at 25°C unless otherwise specified

Properties	PF-5056
Appearance	Clear, colorless
Boiling Point (101 kPa)	25 °C – 80 °C
Liquid Density	1.80 g/ml
Kinematic Viscosity	0.8 centistokes
Water Solubility	<15 ppmw
Solubility in Water	<5 ppmw

3M™ Performance Fluid PF-5056 Materials Compatibility

3M™ Performance Fluid PF-5056 is compatible with most metals, plastics and elastomers.

Toxicity Profile

PF-5056 fluid is non-irritating to the eyes and skin, and is practically non-toxic orally. The product also demonstrates very low acute and sub-chronic inhalation toxicity. A Material Toxicity Summary Sheet (MTSS) is available upon request.

Safety and Handling

PF-5056 fluid is nonflammable, and is highly resistant to thermal breakdown and hydrolysis in storage and during use. Recommended handling procedures are provided in the Material Safety Data Sheet, which is available upon request.

Environmental Properties

PF-5056 fluid has zero ozone depletion potential. The material is exempt from the U.S. EPA and most state definitions of a volatile organic compound (VOC) and does not contribute to ground-level smog formation.

PF-5056 fluid, a perfluorocarbon (PFC), has a high global warming potential and a long atmospheric lifetime. As such, it should be carefully managed so as to minimize emissions.

3M recommends that users of PF-5056 fluid further limit emissions by employing good conservation practices, and by implementing recovery, recycling and/or proper disposal procedures. 3M offers a program in the U.S. for used fluid return. Guidelines for the safe handling and use of this 3M product are provided in the Material Safety Data Sheet.

3M™ Performance Fluid PF-5056 Environmental Policy

3M will recognize and exercise its responsibility to:

- prevent pollution at the source wherever and whenever possible
- develop products that will have a minimal effect on the environment
- conserve natural resources through the use of reclamation and other appropriate methods
- assure that its facilities and products meet and sustain the regulations of all Federal, State and local environmental agencies
- assist, wherever possible, governmental agencies and other official organizations engaged in environmental activities

Used Fluid Return Program

3M offers a program for free pickup and return of used 3M Specialty Materials in the U.S. through Safety-Kleen Corporation. A pre-negotiated handling agreement between users and this service provider offers users broad protection against future liability for used 3M product. The fluid return program is covered by independent third-party financial and environmental audits of treatment, storage and disposal facilities. Necessary documentation is provided. A minimum of 30 gallons of used 3M Specialty Materials is required for participation in this free program.

Safety-Kleen Corporation has a network of 156 branch service centers in the U.S. This large fleet will provide timely, economical fluid disposal service. For additional information on the 3M Used Fluid Return Program, contact Safety-Kleen Corporation at this toll-free line: 1.888.932.2731.

3M™ Performance Fluid PF-5056 Resources

3M™ Performance Fluid PF-5056 customers are supported by global sales, technical and customer sales resources, with fully staffed technical service laboratories in the U.S., Europe, Japan, Latin America and Southeast Asia. Users benefit from 3M's broad technology base and continuing attention to product development, performance, safety and environmental issues.

For additional information on PF-5056 fluid, contact your local 3M office.

www.3m.com/electronics/chemicals

United States

3M Electronics Markets
Materials Division
800 810 8513

Canada

3M Canada Company
800 364 3577

China

3M China Ltd.
86 21 6275 3535

Europe

3M Belgium N.V.
32 3 250 7521

Japan

Sumitomo 3M Limited
813 3709 8250

Korea

3M Korea Limited
82 2 3771 4114

Malaysia

3M Malaysia Sdn. Berhad
60 3 706 2888

Philippines

3M Philippines, Inc.
63 2 813 3781

Singapore

3M Singapore Pte. Ltd.
65 454 8611

Taiwan

3M Taiwan Limited
886 2 2704 9011

Other Areas

651 736 7123 (U.S.)

Important Notice to Purchaser: The information in this publication is based on tests that we believe are reliable. Your results may vary due to differences in test types and conditions. You must evaluate and determine whether the product is suitable for your intended application. Since conditions of product use are outside of our control and vary widely, the following is made in lieu of all express or implied warranties (including the implied warranties of merchantability and fitness for a particular purpose): Except where prohibited by law, 3M's only obligation and your only remedy, is replacement or, at 3M's option, refund of the original purchase price of product that is shown to have been defective when you received it. In no case will 3M be liable for any direct, indirect, special, incidental, or consequential damages (including, without limitation, lost profits, goodwill, and business opportunity) based on breach of warranty, condition or contract, negligence, strict tort, or any other legal or equitable theory.

**Electronics Markets Materials Division**

3M Center, Building 220-9E-11
St. Paul, MN 55144-1000

3M is a trademark of 3M Company.
Used under license by 3M subsidiaries and affiliates.

www.3m.com/electronics/chemicals

Issued: 11/03

© 2003 3M

4727 (HB)
98-0212-3703-1