



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899-0001

DATE: 26 May 2015

**Product Identifier**

**RM Number:** 8457  
**RM Name:** Ultra High Molecular Weight Polyethylene  
0.5 cm Cubes

Under the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, this Reference Material (RM) is NOT classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified. There are no hazard pictograms, hazard statements or signal word associated with it. Safety Data Sheet information is not required. This document may be used in conjunction with your hazard communication program.

This material is formed to a specific shape or design during manufacture which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of 1910.1200), and does not pose a physical hazard or health risk to employees.

**Description:** This Reference Material (RM) is an orthopedic grade ultra high molecular weight polyethylene (UHMWPE) that consists of 0.5 cm cubes, machined from the central portion of the 7.62 cm (3.0 inch) rod of RM 8456. The 0.5 cm cubes are intended for use as controls for evaluations of cross-linking wrought by exposure to ionizing radiation, in particular, to improve wear characteristics.

**Disposal:** RM 8457 should be disposed of in accordance with local, state, and federal regulations.

**Transport Information:** This material is not regulated by the U.S. Department of Transportation (DOT) and/or International Air Transportation Association (IATA).

**Disclaimer:** This document was prepared carefully, using current references. Users of this RM should ensure that this document and the corresponding Report of Investigation in their possession are current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail [srmmsds@nist.gov](mailto:srmmsds@nist.gov); or via the Internet at <http://www.nist.gov/srm>.