

Liquid Propellant Hazards and Safety

OVERVIEW

This class will go over the principal storable propellants and their general and specific hazards. These propellants include hydrazine, MMH, RP 1 & 2, NTO & MONs, nitrous oxide, hydrogen peroxide, ASCENT, and LMP-103S.

LEARNING OBJECTIVES

By the end of this course participants will be able to:

- Understand the fundamentals of chemical safety.
- Understand the parts of an SDS
- Describe the most common liquid propellants
- Describe the general hazards that are most relevant for liquid propellants
- Understand and describe the specific hazards of these propellants
- Be familiar with examples of accidents and the lessons from these accidents

WHO IS THIS FOR?

All space professionals who want to work with or around propellants.

INSTRUCTORS

Eric Cardiff is the founder of Virtucon Earth and Space, LLC, and former chief engineer for propulsion at NASA Goddard Space Flight Center. He received his Ph.D. in propellants from Penn State University in 2002, and has over 20 years of experience in design, build, test, and flight of spacecraft propulsion systems. Dr. Cardiff has worked on multiple high-profile mishap investigations and spacecraft anomalies, and has expertise in propellant handling. He has also contributed to the development of both ASCENT and HyperFlex propellants and propulsion systems.

COURSE FEES

\$500 per person for local onsite training

HOURS

Classroom Hours: 8 classroom hours