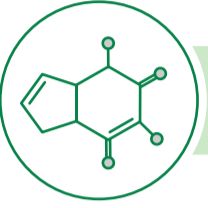


SEMI S30-0719 | SAFETY GUIDELINE FOR ENERGETIC MATERIALS IN SEMICONDUCTOR R&D AND MANUFACTURING PROCESSES

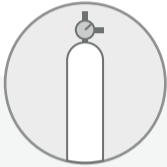


SEMI S30-0719 APPLIES TO

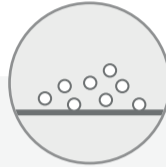
- > Energetic Process Chemical Suppliers
- > Users of Energetic Chemicals
- > Suppliers of Equipment that use Energetic Chemicals



MATERIALS IN SCOPE



Specialty gases



Thin-film precursors



Etchants



Ancillary chemicals

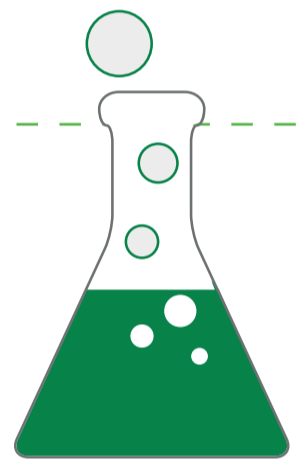


REQUIRED SAFETY INFORMATION

Energetic Process Chemical Suppliers must provide the following information

1. Material Characterization Form (Appendx 1)
2. Material Classification: Is it an Energetic Material?
3. Stoichiometry and Thermodynamics
 - Reaction with water and oxygen
 - Include byproducts and their hazards
4. Calorimetry of the Material
5. Video showing the reaction of the material with humid air & moistened cleanroom wipe & liquid water
6. Personal Protective Equipment (PPE)

...and fire and spill control procedures based on this information!



WHAT IS AN ENERGETIC MATERIAL?

Meets one of the following criteria:

- > Hazardously Exothermic
- > Water Reactive
- > Pyrophoric
- > Reactive with air or water to form a product with one of the above properties!

DEKRA PROCESS SAFETY has decades of experience classifying material hazards and serving the Semiconductor Industry

Contact us if you want to learn more about addressing safety requirements for energetic materials in the Semiconductor Industry!

Contact Us