

U.S. Fire Administration / National Fire Academy

Coffee Break Training

Topic: Aerosol Product Classifications

Learning objective: The student shall be able to identify the three classifications of aerosol products for fire protection purposes.

Aerosol products are a serious fire protection challenge because they contain products under pressure that might spray burning material throughout a building when a container fails due to heat. Aerosol products contain a “base,” which is the product being sold (in this example, windshield de-icer) and a “propellant,” which is the pressurized liquid or gas that expels the base product from the container.

For fire protection purposes, aerosols are classified into one of three categories depending upon their potential heat of combustion. As the numbers get higher, the fire protection requirements increase as well. The box that contains the aerosol products must be labeled with the aerosol classification.



Aerosol Classification	Chemical Heat of Combustion	
	Greater than (Btu/lb)	Less than or equal to (Btu/Lb)
1	0	8,600
2	8,600	13,000
3	13,000	–

The chemical heat of combustion information can be obtained from the manufacturer’s Material Safety Data Sheet (MSDS).

For additional information, refer to *International Fire Code*[®], Chapter 28; *NFPA 1, Uniform Fire Code*[™], or *NFPA 30B, Code for the Manufacture and Storage of Aerosol Products*.