

What is claimed is:

1. A gas generator comprising:

a housing having oppositely disposed first and second ends, adjacent the first end, the housing at least in part defining a first chamber containing a quantity of ignition material and, adjacent the second end, the housing at least in part defining a second chamber containing a quantity of gas generant material; and

an initiator operatively associated with the first chamber and in reaction initiating communication with at least a portion of the quantity of ignition material, the initiator, upon actuation, to initiate reaction of at least a portion of the quantity of ignition material to form ignition products;

wherein the second chamber includes at least one container wherein at least a portion of the quantity of gas generant material is contained, the container having a perforated side wall and oppositely disposed first and second end walls, with the first end wall perforated and disposed adjacent the first chamber to allow communication of at least a portion of the ignition products therethrough and into contact with gas generant material therein contained to ignite the gas generant material to produce a product gas and with the second end wall perforated to allow gas flow communication of the product gas therethrough for discharge from the gas generator.

2. The gas generator of claim 1 wherein the second chamber includes a plurality of said containers.

3. The gas generator of claim 1 wherein the at least one container comprises a cylindrical tube.

4. The gas generator of claim 1 wherein the ignition material within the first chamber is in tablet form.

5. The gas generator of claim 1 wherein the gas generant material within the at least one container is in wafer form.

6. The gas generator of claim 5 wherein the gas generant material within the at least one container comprises a plurality of wafers.

7. The gas generator of claim 5 wherein the at least one container is a cylindrical tube and at least one of the first and second end walls comprises a perforated retainer disk secured to a respective end of the cylindrical tube.

8. The gas generator of claim 7 wherein the perforated retainer disk comprises a plurality of deformable joinder tabs, the joinder tabs upon deformation to secure the retainer disk to the respective end of the cylindrical tube.

9. The gas generator of claim 1 wherein the first end wall at least in part comprises an igniter end retainer plate and the second end wall at least in part comprises an output end retainer plate.

10. The gas generator of claim 9 wherein the igniter end retainer plate and the output end retainer plate each comprises a plurality of deformable joinder tabs, the igniter end retainer plate joinder tabs upon deformation to secure the igniter end retainer plate to the first end of the housing and the output end retainer plate joinder tabs upon deformation to secure the output end retainer plate to the second end of the housing.

11. The gas generator of claim 9 wherein the igniter end retainer plate and the output end retainer plate each comprise a perforated cup to be disposed at an opposite end of the at least one container.

12. The gas generator of claim 1 sized for fire suppression application and containing ignition material and gas generant material in a ratio (%) of 1% or less.

13. A gas generator assembly comprising:

an enclosed housing having an elongated length and oppositely disposed first and second ends, adjacent the first end the housing at least in part defining a first chamber containing a quantity of ignition material tablets and, adjacent the second end the housing at least in part defining an elongated second chamber containing a quantity of gas generant material;

an initiator operatively associated with the first chamber and in reaction initiating communication with at least a portion of the quantity of ignition material tablets, the initiator, upon actuation, to initiate reaction of at least a portion of the quantity of ignition material tablets to form ignition products;

wherein the second chamber at least in part contains at least first and second gas generant containers, the first and the second gas generant containers each comprising:

a perforated cylindrical tube having oppositely disposed first and second end walls with a plurality of gas generant material wafers disposed therebetween;

the first end walls each comprising a first perforated retainer disk secured to the first end of the respective perforated cylindrical tube and disposed adjacent the first chamber to allow communication of at least a portion of the ignition products therethrough and into contact with gas generant material therein contained to ignite the gas generant material to produce a product gas and

the second end walls each comprising a second perforated retainer disk secured to the second end of the respective perforated cylindrical tube perforated to allow gas flow communication of the product gas therethrough for discharge from the gas generator; and

wherein the gas generator assembly additionally comprises;

a tube first end retainer plate disposed between the first chamber and the first end walls of the first and second gas generant containers and

a tube second end retainer plate disposed adjacent the second end walls of the first and second gas generant containers opposite the plurality of gas generant material wafers.

14. The gas generator assembly of claim 13 wherein:

the tube first end retainer plate and the tube second end retainer plate each comprise first and second perforated cups to be disposed at opposite ends of the first and the second gas generant containers, respectively.

15. The gas generator assembly of claim 13 sized for fire suppression application and containing ignition material and gas generant material in a ratio (%) of 1% or less.