

MIL-STD-720A (OS)
 11 October 1974
 Superseding
 MIL-STD-720 (NORD)
 29 June 1959

MILITARY STANDARD

FORMULA FOR YELLOW FIRST FIRE COMPOSITION

This Standard is approved for use by all Departments and Agencies of the Department of Defense

1. SCOPE

1.1 This Standard establishes the formula for yellow first fire composition for use in ignition or first fire of illuminating pyrotechnic candles.

TABLE I

Ingredient	Barium Nitrate	Silicon	Tetranitro-carbazole	Zirconium Hydride	Binder Solution
Specification	MIL-B-162 Class 6 Granulation B	MIL-S-230 Grade I Class B Note 3	MIL-T-13723	MIL-Z-21353	MIL-STD-708 Class 3
Percent by Weight	50.0 ± 2.0	20.0 ± 1.0	10.0 ± 1.0	15.0 ± 1.0	5.0 ± 0.5

2. DETAILED REQUIREMENTS.

2.1 The moisture content of the composition shall not exceed 0.2 percent when tested in accordance with the moisture test of MIL-B-152.

2.2 The composition shall be thoroughly blended and aged for a minimum of 24 hours prior to use.

2.3 Silicon shall be as specified in Table I, except that the form shall be cubical crystalline (not amorphous) and the average particle size shall be 8 to 15 microns.

2.4 The processing of the materials, the blending operation, and storage shall take place under conditions which do not permit the relative humidity to exceed 40 percent and with a maximum temperature of 80°F(27°C).

2.5 The solid materials shall be preblended prior to the addition of the laminac mixture.

2.6 The blender shall be cleaned after each batch. Acetone has been found satisfactory for this operation. Due to its high volatility and ease of ignition, extreme caution should be exercised in handling acetone.

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CAUTION. For safety reasons, the blending of more than 15 pounds per batch is considered inadvisable. The usual precautions for handling pyrotechnic mixtures must be observed in the blending of this composition. The operation of the blender should be controlled remotely. Safety precautions shall be as specified in DOD 4145.26M (OP 5, Vol 1, Ammunition Ashore, when work is to be accomplished by a government activity).

3. NOTES.

3.1 A muller type blender has been found satisfactory for blending the laminac mixture with the preblended materials.

3.2 The Replacement Sample Powder Tank Mk 1 Mods, NAVORD Dwg. 423037 has been found satisfactory for handling and storage of the mixture.

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring agency or as directed by the contracting officer.)

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(Project No. 1370-N112)