

MIL-STD-545

9 OCTOBER 1950

SUPERSEDING

CmlC B1-22A

17 December 1948

## MILITARY STANDARD

## FORMULA FOR

## FUEL MIXTURE - I

Ingredient	Ammonium nitrate	Charcoal	Paraffin wax
Specification	JAN-A-175 <sup>1</sup> (grade III)	JAN-C-178 (class d)	U. S. Army 2-63 (type III, grade B)
Particle size (U. S. Standard sieve sizes—Fed. Spec. RR-S-366)			
<i>Percentage passing</i>	<i>(Reground to pass)</i>		
No. 60 sieve.....	95 minimum.....	98 minimum.....	
No. 100 sieve.....	15 minimum.....		
No. 140 sieve.....		80 minimum.....	
No. 200 sieve.....	50 maximum.....		
No. 325 sieve.....		50 minimum, 80 maximum.....	
Parts by weight.....	86.5 ± 0.5.....	9.0 ± 0.5.....	4.5 <sup>2</sup> .

<sup>1</sup> Granulated ammonium nitrate shall be dried to constant weight at approximately 150°F. and then ground to the correct particle size. The moisture content prior to mixing shall not exceed 0.10 percent.

<sup>2</sup> The quantity of paraffin wax may be varied between a minimum of 3 parts and a maximum of 6 parts, by weight, to meet the specified functioning requirements.

The paraffin wax may be melted and spray granulated under pressure through a spray nozzle. A maximum of 0.1 percent of charcoal, by weight, may be added to the granular wax to prevent agglomeration.

Extreme care should be exercised during the grinding and mixing of ammonium nitrate in order to prevent fires and explosions.

All sieve tests of ammonium nitrate or charcoal shall be made by shaking a 100-gm. sample of ammonium nitrate or a 20-gm. sample of charcoal in a single-eccentric type mechanical shaker which imparts to the sieves a rotary motion and tapping action of uniform speed of  $300 \pm 15$  gyrations and  $150 \pm 10$  taps of the striker per minute.

Excessive skin contact and inhalation of dust should be avoided. A dust respirator,

coveralls, and gloves should be worn when handling these materials.

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**MIL-STD-545**

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**Custodian:**

Army—Chemical Corps

**Other interest:**

Navy—O

Air Force.