

**MIL-W-45475C (MU)****AMENDMENT 3  
28 JANUARY 1965****SUPERSEDING  
AMENDMENT 2  
14 APRIL 1964****MILITARY SPECIFICATION****WARHEAD, GUIDED MISSILE, HE, XM5E5  
LOADING, ASSEMBLING AND PACKING**

*This amendment forms a part of Military Specification MIL-W-45475C (MU), 22 July 1963.*

**Page 1, under MILITARY SPECIFICATIONS:**

- Delete: JAN-A-289 — Aluminum Powder, Flaked, Grained and Atomized (for use in Ammunition).
- Add: MIL-A-512 — Aluminum Powder, Flaked, Grained and Atomized.
- Add: MIL-C-46652 — Composition B-4.

**Page 3, add:**

**3.3.1 Alternate composition.** An alternate charge composition shall be as follows:

<i>Ingredients</i>	<i>Percentage by weight</i>
Composition B-4 (MIL-C-46652 w/Amend 1).	67.9 to 79.9
Aluminum (MIL-A-512, Type III, Grade F, Class 7).	17.9 to 23.9
D-2 Desensitizer (MIL-C-18164).....	3.7 to 5.7
Calcium Chloride (MIL-C-13573).....	0.4 to 0.6"

**Page 10, paragraph 4.2.2.12:** Add Major defect:

105. Pellet cup assembly reversed.	Visual	12009
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**Page 12, delete text of 4.2.3.1 and substitute:**

The Government Inspector shall monitor and verify the weighing of all ingredients used in each batch of explosive charge. That verification will serve as acceptance criteria for the calcium chloride and calcium silicate (if

added) content of the batch. All other ingredients shall be verified by chemical analysis in accordance with 4.3.1. For analysis, 3 sample wafers of approximately 100 grams each shall be taken from the batch, at the pouring spout, during the pour. One each of the wafers shall be taken near the beginning, at approximately the middle and near the end of each batch. One-quarter of each wafer shall be ground and the required sample selected for analysis. Failure of a sample in meeting one or more of the requirements shall reject the represented product.

**Page 12, add:**

**4.2.3.1.1 Reduced sampling.** After 20 consecutive batches have been found acceptable, 3 Sigma limits of the analytical results for each ingredient may be computed and used to prepare a process control chart. (The method of computing the 3 Sigma limits shall be approved by the technical agency prior to inclusion in the contractor's quality assurance

**MIL-W-45475C (MU)**  
**Amendment 3**

plan.) The same quantity of wafers shall be selected and prepared for analysis from each batch poured thereafter and each tenth sample shall be analyzed. If all analytical results of the sample are within the established control limits, the 9 preceding samples may be destroyed and the product represented by those samples shall be accepted. If one or more of the ingredients in the analyzed sample are outside the established control limits, but inside the specification limits, the batch shall be accepted and the 9 preceding samples shall be analyzed. All batches within specification limits shall be accepted. If 3 or more of the 9 batches contain one or more ingredients outside the established limits, the following 10 batches shall be analyzed and the data from those batches and the 10 previous batches shall be used to compute new 3 Sigma control limits. The batches shall be accepted if the average range (the average of the individual ranges of 3 values for each of 20 batches) of the 20 batches does not exceed 0.282 times the difference between the upper specification limit and lower specification limit (average range shall be greater than  $0.282 \times \text{USL} - \text{LSL}$ ), and the differences between the upper specification limit and the upper control limit,

and the lower specification limit and the lower control limit is equal to or greater than 0.75 average range in both cases. (UCL shall be equal to or less than 0.75 of the average range and LCL shall be equal to or greater than 0.75 of the average range.)

*Page 13*, paragraph 4.3.1.2, line 6: Delete: (Reserve the crucible and residue for the calcium silicate determination.)

*Page 14*, delete 4.3.1.3 in its entirety.

*Page 14*, delete text of 4.3.1.4 and substitute:

The aluminum content shall be calculated as the difference between 100 percent and the sum of the calcium chloride and calcium silicate content, if added or as contained in Composition B-4, and the analytical results of 4.3.1.1 and 4.3.1.2.

\* *Page 14*, paragraph 4.3.2, line 3: Delete: and after a 90 degree rotation on its longitudinal axis.

\* Asterisks denote changes or additions to previous amendment.

**Custodian:**  
**Army—MU**

**Preparing activity:**  
**Army—MU**  
**Project No. 1336-A112**