

§ 173.57 Acceptance criteria for new explosives.

(a) Unless otherwise excepted, an explosive substance must be subjected to the Drop Weight Impact Sensitivity Test (Test Method 3(a)(i)), the Friction Sensitivity Test (Test Method 3(b)(iii)), the Thermal Stability Test (Test Method 3(c)) at 75 °C (167 °F) and the Small-Scale Burning Test (Test Method 3(d)(i)), each as described in the Explosive Test Manual (UN Manual of Tests and Criteria) (IBR, see §171.7 of this subchapter). A substance is forbidden for transportation if any one of the following occurs:

(1) For a liquid, failure to pass the test criteria when tested in the Drop Weight Impact Sensitivity Test apparatus for liquids;

(2) For a solid, failure to pass the test criteria when tested in the Drop Weight Impact Sensitivity Test apparatus for solids;

(3) The substance has a friction sensitiveness equal to or greater than that of dry pentaerythrite tetranitrate (PETN) when tested in the Friction Sensitivity Test;

(4) The substance fails to pass the test criteria specified in the Thermal Stability Test at 75 °C (167 °F); or

(5) Explosion occurs when tested in the Small-Scale Burning Test.

(b) An explosive article, packaged or unpackaged, or a packaged explosive substance must be subjected to the Thermal Stability Test for Articles and Packaged Articles (Test method 4(a)(i)) and the Twelve Meter Drop Test (Test Method 4(b)(ii)), when appropriate, in the Explosive Test Manual. An article or packaged substance is forbidden for transportation if evidence of thermal instability or excessive impact sensitivity is found in those tests according to the criteria and methods of assessing results prescribed therein.

(c) Dynamite (explosive, blasting, type A) is forbidden for transportation if any of the following occurs:

(1) It does not have uniformly mixed with the absorbent material a satisfactory antacid in a quantity sufficient to have the acid neutralizing power of an amount of magnesium carbonate equal to one percent of the nitroglycerin or other liquid explosive ingredient;

(2) During the centrifuge test (Test Method D–2, in appendix D to this part) or the compression test (Test Method D–3 in appendix D to this part), a non-gelatin dynamite loses more than 3 percent by weight of the liquid explosive or a gelatin dynamite loses more than 10 percent by weight of the liquid explosive; or

(3) During the leakage test (Test Method D–1 in appendix D to this part), there is any loss of liquid.

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