



INDIVIDUAL COMPANY DATA PROPRIETARY
United States Department of the Interior



BUREAU OF MINES
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Date: July 12, 1994
Report No.: T-8697

RECOMMENDATION FOR CLASSIFICATION

1. Manufacturer Owen Oil Tools, Inc.
2. Requestor Owen Compliance Services, Inc.
3. Product Type Bi-directional Boosters
4. Designation of Items for which Classification is Requested Owen Oil Tools' family of OOT-APRV-023 Bi-directional Boosters
5. Descriptive Material June 1, 1994, letter with attachments from Mr. David W. Boston, Drawing Nos. OOT-APRV-023, DET-APRV-016, DET-PCKG-002, and DET-PCK-002

This Recommendation for Classification is for Owen Oil Tools' family of OOT-APRV-023 Bi-directional Boosters. These devices are similar to Owen Oil Tools' DET-APRV-023 Detonators, non-electric, which were tested and recommended for classification in U.S. BOM Report No. T-7938 dated 11-19-92, attached. The OOT-APRV-023 Bi-directional Boosters will contain the same minimum and maximum quantities of explosive components as the DET-APRV-016 Detonators, non-electric, and will include the Booster and Connector configurations, which are identical in design to those included in the DET-APRV-016 Detonators, non-electric. The explosive components included in the OOT-APRV-023 Bi-directional Boosters are listed in Table 1.

EXPLOSIVE COMPONENTS	QUANTITIES (GRAMS)			
	BOOSTER CONFIGURATION		CONNECTOR CONFIGURATION	
	minimum	maximum	minimum	maximum
Base Charge ¹	0.032	0.972	0.032	0.972
Primer Charge ²	0.064	0.194	0.064	0.194

^{1,2}The Base and Primer Charges may consist of any one of the following secondary explosives: RDX, HMX, HNS, PYX, NONA, or CP

²The Primer Charge indicated in Drawing Nos. OOT-APRV-023 and DET-APRV-016 may or may not be present

Table 1. Components: Owen Oil Tools' family of OOT-APRV-023 Bi-directional Boosters

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The differences between the OOT-APRV-023 Bi-directional Boosters and the DET-APRV-023 Detonators, non-electric, are listed in Table 2.

EXPLOSIVE COMPONENTS	CLASSIFIED ITEMS DET-APRV-016	NEW ITEMS OOT-APRV-023
Base Charge	RDX, HMX, HNS, PYX, PETN, or NONA	RDX, HMX, HNS, PYX, NONA, or CP
Primer Charge	RDX, HMX, HNS, PYX, PETN, NONA, Lead Azide, or Tacot	RDX, HMX, HNS, PYX, NONA, or CP
Configurations	Detonator, Connector, and Hornet	Booster (identical to Detonator), and Connector
Reference Number	EX-9212002	--

Table 2

Comments:

Based upon the results of tests conducted on Owen Oil Tools' family of DET-APRV-023 Detonators, non-electric, it is concluded that Owen Oil Tools' family of OOT-APRV-023 Bi-directional Boosters will not create any significant differences in hazard characteristics when packaged in a manner similar to the packaging method which was tested. In addition, it is recommended that Owen Oil Tools' family of OOT-APRV-023 Bi-directional Boosters be assigned the Proper Shipping Name, "Components, explosive train, n.o.s.", and to Hazard Class and Division 1.4S.

6. Recommended UN Classification (according to 49 CFR, October 1993 Revision)
 - a. Proper shipping name Components, explosive train, n.o.s.
 - b. Hazard class 1.4S
 - c. Identification number UN 0384
 - d. Packaging group II
 - e. Label 172.411, Explosive 1.4S
 - f. Special provisions 101
 - g. Packaging authorization 173.62
 - h. Marking 172.300, Components, explosive train, n.o.s., UN 0384

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7. Recommended Classification (according to 49 CFR, October 1990 Revision)

The October 1, 1992, revision to 49 CFR, Pt. 172.101, does not contain a Proper Shipping Name corresponding to "Components, explosive train, n.o.s.," in Hazard Class and Division 1.4S.

Recommended by


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