



U.S. Department
of Transportation

430 Seventh Street, S.W.
Washington, D.C. 20590

**Research and
Special Programs
Administration**

**The US Department of Transportation
Competent Authority for the United States**

CLASSIFICATION OF EXPLOSIVES

Based upon a request by RCS Rocket Motor Components, Inc. (formerly AeroTech, Inc. & Industrial Solid Propulsion (ISP), Inc.), 2113 W. 850 N. Street, Cedar City, UT, the following items are classed in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR). A copy of your application, all supporting documentation and a copy of this approval must be retained and made available to DOT upon request.

U.N. PROPER SHIPPING NAME AND NUMBER:

Articles explosive, n.o.s., UN0439

U.N. CLASSIFICATION CODE: 1.4S

REFERENCE NUMBER
EX1982050051

PRODUCT DESIGNATION/PART NUMBER
BOE-01

NOTES:

Domestic (except by air): Model rocket motor (30 grams or less) NA 0323 Class 1.4S Packaging Method 134. Model rocket motor (more than 30 but less than 62.5g) NA 0276 Class 1.4C Packaging Method 134. International (including air): Articles, explosive, n.o.s. (30 grams or less) UN 0349 Class 1.4S authorized by Air Packaging Method 134. Articles, explosive, n.o.s. (more than 30 grams, but less than 62.5g) UN 0471 Class 1.4E authorized by Air Packaging Method 134.

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER
EX1994040152

PRODUCT DESIGNATION/PART NUMBER
White Lightning (J90W) (J275W) (J415W)
(K550W) (K458W) (L952W) (M1419W)
(M1939W)

NOTES:

Explosive items authorized are reload kits which contain both propellant charge and delay charge in quantities and dimensions as specified in the Attachment to Aerotech drawing number BOE-03A, **dated** 03/07/1994.

U.N. PROPER SHIPPING NAME AND NUMBER:

Articles, explosive, n.o.s., UN0351

U.N. CLASSIFICATION CODE: 1.4C**REFERENCE NUMBER**

EX2001030047

PRODUCT DESIGNATION/PART NUMBER

Aerotech-manufactured Kosdon TRM reload kit using fuel modules containing not more than 62.5 grams of propellant per module, (030101-2, 030101-5, 030101-8, 030101-10)

NOTES:

This EX number is issued to AeroTech as an extension of an EX approval which was first issued to Kosdon Enterprises. AeroTech may only ship product marked with their respective EX number under an exclusive license agreement with Kosdon Enterprises. Kosdon Enterprises assumes responsibility that AeroTech will manufacture and ship in full compliance with the regulations and classifications associated with Kosdon's original EX approval.

U.N. PROPER SHIPPING NAME AND NUMBER:

Rocket motors, UN0186

U.N. CLASSIFICATION CODE: 1.3C**REFERENCE NUMBER**

EX1999120159

PRODUCT DESIGNATION/PART NUMBER

RDS-80, RDS-133, RDS-285, RDS-420-2, RDS 420-3 (with straight MII-02 mechanical igniters attached) and RDS-575, RDS-900 (with 90 degree angle MII-0 mechanical igniter attached).

NOTES:

This classification is only valid when: 1) the mechanical (percussion) igniters affixed to the rocket motors has a steel "safe and arm device" securely installed between the firing pin and the shotshell primers to prevent accidental initiation. 2) there is a legible, durable label attached to the device stating: "This device may not be transported unless a steel safe and arm device is installed between the firing pins and the primers"; and 3) the rocket motors are packaged as follows: Inner Packaging: Sheets, two or more layers of plastic bubble wrap around each device. Intermediate Packaging: Dunnage (plastic foam chips or similar) sufficient to prevent contact between inner packagings. Outer Packaging: Specification 4G fiberboard box.

U.N. PROPER SHIPPING NAME AND NUMBER:

Articles, explosive, n.o.s., UN0351

U.N. CLASSIFICATION CODE: 1.4C

REFERENCE NUMBER

EX1993050148

PRODUCT DESIGNATION/PART NUMBERWhite Lightning Reload Kit up to 62.5g propellant,
8.3g Delay charge and 1.4g Ejection charge**NOTES:**

Packagings authorized are: The reload kit or kits must be packed in a plastic bag as the inner packaging. Each inner packaging may contain up to 62.5 grams of propellant, 8.3 grams of delay charge and 1.4 grams of ejection charge. No more than 12 inner packagings may be packed in a fiberboard box intermediate packaging. The intermediate packaging must be packed in a 4G fiberboard box outer packaging. Intermediate packaging is not required for a package containing 12 or less inner packagings.

U.N. PROPER SHIPPING NAME AND NUMBER:

Rocket motors, UN0186

U.N. CLASSIFICATION CODE: 1.3C**REFERENCE NUMBER**

EX1986040200

PRODUCT DESIGNATION/PART NUMBER

BOE-02

U.N. PROPER SHIPPING NAME AND NUMBER:

Articles, explosive, n.o.s., UN0351

U.N. CLASSIFICATION CODE: 1.4C**REFERENCE NUMBER**

EX1993050149

PRODUCT DESIGNATION/PART NUMBERBlue Thunder Reload Kit up to 62.5g propellant,
8.3g Delay charge and 1.4g Ejection charge**NOTES:**

Packagings authorized are: The reload kit or kits must be packed in a plastic bag as the inner packaging. Each inner packaging may contain up to 62.5 grams of propellant, 8.3 grams of delay charge and 1.4 grams of ejection charge. No more than 12 inner packagings may be packed in a fiberboard box intermediate packaging. The intermediate packaging must be packed in a 4G fiberboard box outer packaging. Intermediate packaging is not required for a package containing 12 or less inner packagings.

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C**REFERENCE NUMBER**

EX1995020047

PRODUCT DESIGNATION/PART NUMBER

BOE-03A-K185W

U.N. PROPER SHIPPING NAME AND NUMBER:

Articles, explosive, n.o.s., UN0351

U.N. CLASSIFICATION CODE: 1.4C**REFERENCE NUMBER**

EX1993050150

PRODUCT DESIGNATION/PART NUMBERBlack Jack Reload Kit up to 62.5g propellant, 8.3g
Delay charge and 1.4g Ejection charge**NOTES:**

Packagings authorized are: The reload kit or kits must be packed in a plastic bag as the inner packaging. Each inner packaging may contain up to 62.5 grams of propellant, 8.3 grams of delay charge and 1.4 grams of ejection charge. No more than 12 inner packagings may be packed in a fiberboard box intermediate packaging. The intermediate packaging must be packed in a 4G fiberboard box outer packaging. Intermediate packaging is not required for a package containing 12 or less inner packagings.

U.N. PROPER SHIPPING NAME AND NUMBER:

Model rocket motor, NA0323

U.N. CLASSIFICATION CODE: 1.4S**REFERENCE NUMBER**

EX2000110042

PRODUCT DESIGNATION/PART NUMBERBlue Thunder "Lite" Reload Kit, not more than 30
grams of propellant**U.N. PROPER SHIPPING NAME AND NUMBER:**

Articles, pyrotechnic [for technical purposes], UN0431

U.N. CLASSIFICATION CODE: 1.4G**REFERENCE NUMBER**

EX1995020045

PRODUCT DESIGNATION/PART NUMBER

BOE-05

NOTES:

This classification is valid only if packaged as follow: Each device (pellet) is packed in a plastic bag and no more than 20 devices are packed in a 200 lb test fiberboard intermediate box further packed in a 4G outer box. Each package may not contain more than 5 intermediate boxes (no more than 100 pellets).

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER
EX1994040154

PRODUCT DESIGNATION/PART NUMBER
Black Jack (H73J) (I112J) (I154J)

NOTES:

Explosive items authorized are reload kits which contain both propellant charge and delay charge in quantities and dimensions as specified in the Attachment to Aerotech drawing number BOE-03A, **dated** 03/07/1994.

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER
EX1998070120

PRODUCT DESIGNATION/PART NUMBER
BOE-03A (75mm White Lightning Propellant, 669 grams, H x D: 5.25" x 2.55")

NOTES:

This classification is valid only for a kit consisting of a propellant cartridge with not more than 669 grams of propellant and a smoke cartridge with not more than 62.5 grams of propellant.

U.N. PROPER SHIPPING NAME AND NUMBER:

Model rocket motor, NA0323

U.N. CLASSIFICATION CODE: 1.4S

REFERENCE NUMBER
EX2000110043

PRODUCT DESIGNATION/PART NUMBER
White Lightning "Lite" Reload Kit, not more than 30 grams of propellant

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER
EX1994040153

PRODUCT DESIGNATION/PART NUMBER
Blue Thunder (J180T) (J460T) (J800T) (K1100T)

NOTES:

Explosive items authorized are reload kits which contain both propellant charge and delay charge in quantities and dimensions as specified in the Attachment to Aerotech drawing number BOE-03A, dated 03/07/1994.

U.N. PROPER SHIPPING NAME AND NUMBER:

Model rocket motor, NA0276

U.N. CLASSIFICATION CODE: 1.4C**REFERENCE NUMBER**

EX2001040078

PRODUCT DESIGNATION/PART NUMBER

Redline Propellant motors and reload kits
containing more than 30 grams but not more than
62.5 grams per motor

NOTES:

The rocket motor reload kits may include electrical igniters which are inner packaged separately and not installed in the fuel modules.

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C**REFERENCE NUMBER**

EX1998070121

PRODUCT DESIGNATION/PART NUMBER

BOE-03A (98mm Bleu Thunder Propellant, 1,176
grams, H x D: 6.00" x 3.37")

NOTES:

This classification is valid only for a kit consisting of a propellant cartridge with not more than 1,176 grams of propellant and a smoke cartridge with not more than 87.4 grams of propellant.

U.N. PROPER SHIPPING NAME AND NUMBER:

Model rocket motor, NA0323

U.N. CLASSIFICATION CODE: 1.4S**REFERENCE NUMBER**

EX2000110044

PRODUCT DESIGNATION/PART NUMBER

Black Jack "Lite" Reload Kit, not more than 30
grams of propellant

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER

EX2001030048

PRODUCT DESIGNATION/PART NUMBER

Aerotech-manufactured Kosdon TRM reload kit using fuel modules exceeding 62.5 grams of propellant but not more than 1,500 grams per module, (030101-3, 030101-6, 030101-9, 030101-11)

NOTES:

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U.N. PROPER SHIPPING NAME AND NUMBER:

Model rocket motor, NA0323

U.N. CLASSIFICATION CODE: 1.4S

REFERENCE NUMBER

EX2001040079

PRODUCT DESIGNATION/PART NUMBER

Redline Propellant motors and reload kits containing not more than 30 grams per motor

NOTES:

The rocket motor reload kits may include electrical igniters which are inner packaged separately and not installed in the fuel modules.

U.N. PROPER SHIPPING NAME AND NUMBER:

Cartridges, power device, UN0275

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER

EX1995020046

PRODUCT DESIGNATION/PART NUMBER

BOE-03A-J135W

U.N. PROPER SHIPPING NAME AND NUMBER:

Igniters, UN0454

U.N. CLASSIFICATION CODE: 1.4S**REFERENCE NUMBER**

EX1999060157

PRODUCT DESIGNATION/PART NUMBERCopperhead Igniters (112098-01), First Fire Igniters
(112098-01B)**NOTES:**

This classification is only valid when the igniters are packaged as follows: Inner Packaging: Tubes, paper-wall or Bags, plastic or Box, plastic blister-type, each containing not more than six (6) igniters. Intermediate Packaging: Box, corrugated fiberboard, each containing not more than twenty-four (24) inner packagings. Outer Packaging: Specification 4G fiberboard box, each containing not more than seventy (70) intermediate packagings.

U.N. PROPER SHIPPING NAME AND NUMBER:

Model rocket motor, NA0323

U.N. CLASSIFICATION CODE: 1.4S**REFERENCE NUMBER**

EX2001030046

PRODUCT DESIGNATION/PART NUMBER"Lite" Aerotech-manufactured Kosdon TRM reload
kit using fuel modules containing no more than 30
grams of propellant per module, (030101-1,
030101-4, 030101-7, 030101-10)**NOTES:**

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U.N. PROPER SHIPPING NAME AND NUMBER:

Rocket motors, UN0186

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER
EX2001030055

PRODUCT DESIGNATION/PART NUMBER
Redline Propellant motors and reload kits exceeding
62.5 grams per motor

NOTES:
The rocket motor reload kits may include electrical igniters which are inner packaged separately and not installed in the fuel modules.

U.N. PROPER SHIPPING NAME AND NUMBER:
Substances, explosive, n.o.s., UN0477

U.N. CLASSIFICATION CODE: 1.3C

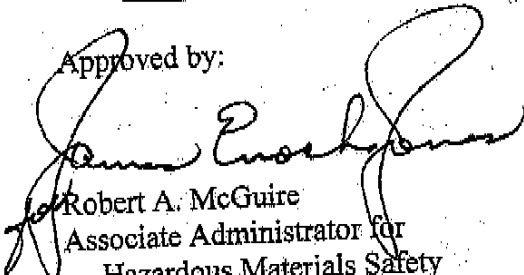
REFERENCE NUMBER
EX1994050218

PRODUCT DESIGNATION/PART NUMBER
Propellant ISP-P-8223AL

NOTES:
Packaging: Inner Packaging - fiberboard box; Outer Packaging - 4G fiberboard or 4C wood box.

DATED: May 11, 2004

Approved by:


Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety