DEFENSE SUPPLY CENTER PHILADELPHIA
CRITICAL ITEM PROCUREMENT REQUIREMENTS DOCUMENT

DOCUMENT NUMBER

MS21043-4

TITLE

NUT, SELF-LOCKING, 800° F, REDUCED HEXAGON, REDUCED HEIGHT, RING BASE, NON-CORROSION RESISTANT STEEL

APPLICABLE TO: **NSN: 5310-00-844-4872**
PART NUMBER: MS21043-4
COMMERCIAL AND GOVERNMENT ENTITY: 14153

CRITICAL SAFETY ITEM

PREPARED BY: **DATE:** 20 Nov 2007

APPROVED BY: **Case Number DSCP-IT-07-48086** **DATE: 10/16/2007**

REVISIONS

SYM	DESCRIPTION	DATE	APPROVED
A	Revised Qualified Sources Information	6 November 2007	

CRITICAL ITEM PROCURMENT REQUIREMENTS DOCUMENT (CIPRD)
MS21043-4

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NSN: 5310-00-844-4872
PART NUMBER: MS21043-4

1. SCOPE:

This Critical Item Procurement Requirements Document (CIPRD) covers the technical requirements of the item specified in the solicitation or contract. The documents listed in paragraph 2, with current revisions are part of this package to the extent specified herein. All Military, Federal and commercial/industry specifications and standards appearing hereon or on referenced documents, are part of this procurement package to the extent specified and shall be the issue in effect on the date of the solicitation unless otherwise specified. Nuts furnished in accordance with this Critical Item Procurement Requirements Document (CIPRD) shall be products authorized by the qualifying activity.

2. REFERENCE DOCUMENTS:

NASM 21043 – NUT, SELF-LOCKING, 450° F, REDUCED HEXAGON, REDUCED HEIGHT, RING BASE, NON-CORROSION RESISTANT STEEL

NASM 25027 – NUT, SELF-LOCKING, 250°F, 450°F AND 800°F

3. REQUIREMENTS:

(1) This CIPRD takes precedence over all documents referenced herein.
(2) All dimensional, performance and verification requirements of NASM 21043 and NASM 25027 apply except as noted herein.
(3) Internal threads per AS8879 will be inspected for dimensional conformance in accordance with System 22 of FED-STD-H28/20. Threads will be gauged prior to the deformation of the threads or insertion of the self-locking device.
(4) All parts will be subject to Fluorescent Penetrant Inspection per ASTM E1417. Any part found to have an indication of cracks shall be rejected.
(5) For the purpose of determining conformance, the observed or calculated plating thickness shall be rounded to the nearest 0.0001 inch in accordance with ASTM E-29.
(6) Only the manufacturer's identification logo listed in MIL-HDBK-57 shall be applied directly to the surface of the part. Do not apply on bearing surfaces. The logo shall be listed with the Defense Supply Center Philadelphia, DSCP-NAS.
(7) All specifications, standards, quality assurance provisions and/or drawings referenced in this CIPRD shall be of the latest revision at the time of contract award.
(8) The item shall undergo manufacturing and testing in accordance with a Statistical Process Control (SPC) program that corresponds to specification requirements.
(9) Nuts shall be tested for wrenching torque on a 100% basis, or in accordance with a SPC program.

4. QUALITY ASSURANCE PROVISIONS:

QAP EQ001 - This Quality Assurance Provision will apply when sampling plans are not specified.
QAP EQ003 - This Quality Assurance Provision establishes requirements for contractors' inspection systems.
QAP 1075 - This Quality Assurance Provision establishes requirements for Product Verification Testing, Certificate of Quality Conformance and Measuring and Test Equipment.

5. PACKAGING:

(1) In addition to the labeling information specified in the contract or purchase order, each container, including the outside pack, the internal package and/or the individual unit pack, will display a label, on each side of the package, containing the following information:

CRITICAL SAFETY ITEM

6. QUALIFIED SOURCES:

ALCOA Global Fasteners (CAGE-15653)
DBA Kaynar Products
800 S. State College Blvd.
Fullerton, CA 92831

SPS Technologies (CAGE-56878)
301 Highland Ave.
Jenkintown, PA 19046

Bell Helicopter (CAGE-97499)
600 E. Hurst Blvd.
Hurst, TX 76053

Republic Fastener Mfg. (CAGE-52828)
1300 Rancho Conejo Blvd.
Newbury Park, CA 91320

Monadnock Company (CAGE-60119)
18301 E. Arenth St.
Rowland Heights, CA 91748

7. QUALIFICATION PROCEDURES:

(1) Companies wishing to qualify their product for listing in this CIPRD shall submit their application to:

Defense Supply Center Philadelphia
Engineering and Technical Support Office
Attn: DSCP-NAS
700 Robins Avenue
Philadelphia, PA 19111

(2) Application for qualification must comply with the requirements delineated in the Qualification Attachment and the Army Source Approval Requirements found at www.redstone.army.mil/cmo/samsar.html. The CIPRD identifies the part to be a Category V (A, B, or C) Critical Safety Item. However, it is an "Installation Critical Item Only" therefore the requirement of QE-STD-1 Compliance is not required.

(a) Any new source interested in manufacturing this item must submit a qualification test sample(s) and successfully pass testing in accordance with NASM 25027 and instructions provided by the Contracting Officer. In addition, sources that successfully meet qualification test requirements must also meet Production Lot Testing per QAP 1075, before they are deemed as an acceptable source for listing in this CIPRD.

(b) Any established source that has manufactured this item within the last 3 years from the date of the contract order must comply with the following:
- Demonstrate that this product is still available from the listed plant, can be produced under the same conditions as originally qualified and meets the requirements of the current issue of this CIPRD and the specifications referenced herein.
- At the request of the qualifying activity, periodically submit new test data.
- At the request of the qualifying activity complete re-qualification testing.

(c) Any established source that has manufactured this item but not within the last 3 years from the date of the contract order are subject to qualification testing in accordance with NASM 25027 and Production Lot Testing in accordance with QAP 1075. However, these requirements are subject to waiver by the Contracting Officer in coordination with the responsible Engineering Support Activity (ESA).

8. CERTIFICATIONS:

1. A Certificate shall be prepared in accordance with the format contained in QAP 1075. As a minimum the Certificate will include the following:

   (a)Material certification and analysis documentation: Corrosion and Heat Resistant Steel per AMS 5525 (A286), AMS 5731 (A286) or AMS 5732.
   (b) Finish: Silver Plate per AMS 2410.
   (c) Surface Texture in accordance with ANSI B46.1
   (d) Threads per AS 8879.
   (e) Part hardness, tensile strength and certification of part dimensions to the minimum drawing requirements.

2. The Certificate must be maintained on file at the manufacturer's plant for a minimum of 10 years and made available to the government upon request.

3. Upon request, certify that this product is still available from the listed plant and is being produced using the same manufacturing and quality control processes that were used to fabricate the qualification test sample. Documentation of the manufacturing process substantiating this certification must be on file at the manufacturer's plant for a minimum of 10 years and made available to the government upon request.

QUALIFICATION ATTACHMENT

The manufacturer's application shall be made by letter or other appropriate media and addressed to the Defense Supply Center Philadelphia, Attn: DPSC-NAS, 700 Robbins Ave., Philadelphia, PA 19114. Each application must contain the number and date of the CIPRD under which tests are desired and the exact location (including complete street address) of the plant at which the product was manufactured.

In addition, the application must include certification that the applicant:

- Is the manufacturer of the product.
- Has determined from actual tests (within the limits of test equipment commonly available, unless otherwise specified) that the product conforms to the applicable CIPRD. (Test reports and data should be furnished with the application.)
- When requested, will supply products for test which are samples from the manufacturer's normal production.
- Will supply products that meet the requirements of the specification in every respect.
- Will overcome deficiencies disclosed by qualification testing.
- Will not apply for a retest of the product until satisfactory evidence is furnished that any defects disclosed by previous tests have been corrected. (Test reports may be required as evidence.)
- Will notify the qualifying activity of any change in design, material, manufacturing processes (including quality control), or plant location after qualification approval. As part of the notification the applicant will state whether he believes the change will prejudice the capability of the product to meet the qualification test requirements and state whether they intend to submit new samples for testing or desire to be removed as a qualified source.
- Will, when requested by the qualifying activity, submit a certification signed by a responsible official attesting that the applicable product is still available from the listed plant, can be produced under the same conditions as originally qualified and meets the requirements of the current issue of the CIPRD.
- Will, include provisions for self-audit of the processing, fabrication, assembly, inspection, and testing of the product. The results of the self-audit program, which promptly reports nonconformance (deviations) and corrective action to management, will be made available upon request.
- Has maintained, and will continue to maintain, effective management for quality, clearly prescribed and documented by the manufacturer. Manufacturer personnel performing quality functions will have sufficient, well-defined responsibility, authority, and the organizational freedom to identify and evaluate product quality problems and to initiate, recommend, and enforce solutions. Management will periodically review the status of the quality program for effectiveness.
- Agrees to provide the government access, upon request, to technical records, personnel, and facilities pertaining to manufacturing, processing, inspection, and testing to assure compliance with all the specification requirements.

In certain cases the government may find the information required above insufficient to justify an authorization for qualification testing. In those cases the preparing activity,

Defense Supply Center Philadelphia
Office of Engineering and Technical Support
Attn: DSCP-NAS
700 Robbins Ave.
Philadelphia, PA 19111

may request the following information, which is to be provided at no cost to the government:

- The rate at which the applicant can produce the product with his present plant facilities.
- Sketches, photographs, descriptive booklets, or other technical literature bearing upon the product that will assist the government in obtaining a clear conception of the product or process the applicant is offering.
- Such additional information as is required by the applicable specification.

Data

When requested by the qualifying activity, the applicant will furnish, at no cost to the government for test record purposes, copies of any detailed plans, specification test results, or other data required (number required and the media will be specified by the qualifying activity). If such data includes information which the applicant has determined is proprietary and does not wish disclosed to the public or used by the government for any purpose other than testing the product or process for which qualification is desired, the applicant will identify and mark the data which he considers to be proprietary. He will insert the following legend on each sheet containing proprietary data:

> *"These data are considered by the supplier to be submitted in confidence and furnished for the purpose of facilitating qualification testing and are not to be disclosed outside the Government nor to be duplicated, used, or disclosed in whole or in part, for any purpose other than to evaluate the product submitted for qualification testing. This restriction does not limit the Government's right to use information contained in such data if it is obtained from another source."*