A-A-1374
April 30, 1980

COMMERCIAL ITEM DESCRIPTION

SOUR, LAUNDRY (FLUORIDATED)

The General Services Administration has authorized the use of this commercial item description in lieu of Federal Specification P-S-683.

This commercial item description covers two types of quick-dissolving white flake, bead, or granular sours designed to give complete neutralization of the washload, and water alkalinity, and to remove rust stains and prevent discoloration of the fabrics. The products shall be used dry or in solution and shall be added manually to the washwheel or to the supply compartment of an automatic feeding device. The sour containers require WARNING labels.

Salient characteristics:

The type I laundry sour shall consist of wetting agents, sodium silicofluoride, and/or sodium bifluoride. The minimum amount of the sum of fluoride salts shall be 85.0 percent.

The type II laundry sour shall consist of wetting agents and ammonium bifluoride. The minimum amount of the fluoride salt shall be 90.0 percent.

Excluded ingredients. The laundry sours shall not contain oxalic acid, boric acid, ammonium fluoride or hydrofluoric acid.

pH value. The laundry sours shall have a pH (0.2 percent aqueous solution) not greater than 3.6 using the ASTM E 70 Method.

Alkali neutralization capacity. The laundry sours shall have an alkali neutralization capacity not less than 600 using the following procedure:

Take a sample of approximately 1.0 g of laundry sour, record the weight to the nearest 0.01 g, and dissolve in 500 ml of CO_2-free distilled water in a 1,000-ml beaker. Place glass and calomel electrodes of a calibrated pH meter and mechanical stirrer in beaker. Start stirrer. Titrate the solution to a pH of 7.0 with 0.5N NaOH. Use care near the end-point due to a lag in the pH meter. Calculate the alkali neutralization capacity of the laundry sour as follows:

$$\text{Alkali neutralization capacity} = \frac{A \times B \times 40}{W_1}$$

where: A = ml of NaOH solution used
B = normality of NaOH solution
W_1 = weight of sample in grams.

Matter insoluble in distilled water. The laundry sours shall have matter insoluble in distilled water not greater than 5.0 percent using the following procedure:

Accurately weigh a 1-g sample of thoroughly mixed laundry sour. Place in a 1-liter beaker and add 500 ml of distilled water at 45° C (113° F). Stir moderately for 2 minutes and filter through a piece of tared, white, quantitative filter paper in a Buchner funnel using moderate suction. Wash the precipitate with 250 ml of distilled water at 45° C (113° F). Dry the filter paper to constant weight in a vacuum at 60° C and weigh it to determine the weight of laundry sour that did not dissolve. Report the percent of the sample that did not dissolve.

The issue of ASTM E 70 test method in effect on the date of the solicitation shall be used to determine compliance with these requirements.

The laundry sours shall be labeled in accordance with the Federal Hazardous Substances Act Regulations (Code of Federal Regulations, Title 16, Part 1500).

Certification. The contractor shall certify that the product offered meets the salient characteristics of this description and that the product conforms to the producer's own drawings, specifications, standards and quality assurance practices and is the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

Packaging, packing, and marking. The packaging and packing shall be in accordance with normal commercial practice and shall assure acceptance by common carrier and provide product protection against loss and damage during multiple shipments, handling, and storage. The shipping container shall be in compliance with the National Motor Freight Classification and Uniform Freight Classification. Marking shall be as specified in the contract or order.

Application for copies of the ASTM Methods should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.