

TEXAS SPECIFICATION NO. 180-92-02B
SURFACTANT, ANIONIC -- SODIUM LINEAR ALKYL ARYL SULFONATE

Effective Date: May 2011

1. **SCOPE:** This specification establishes the minimum requirements for an anionic wetting and emulsifying agent for use as an ingredient of solid detergent compositions.

Surfactant complying with this specification contributes excellent wetting, emulsifying and detergent properties, and moderately high foaming action to cleaning compositions. It becomes tacky on exposure to moisture in the air, and should be kept in tightly sealed containers.

Cautions: This material will irritate the skin and especially the eyes. The site of any accidental contact should be promptly flushed with running water.

2. **DEFINITIONS:**

Terminology used in this specification is intended to be generic in nature and consistent with meanings that have been defined through general use and/or accepted trade practices. Where variant meanings may exist, the applicable interpretation shall be determined by the Texas Procurement and Support Services, a division of the Texas Comptroller of Public Accounts (CPA).

3. **SPECIFICATION REQUIREMENTS:** Product furnished under this specification shall meet or exceed the following requirements:

3.1 **GENERAL REQUIREMENTS:** The product shall be in the form of a free flowing flaked or granular solid, white, or light cream in color.

3.2 **CHEMICAL AND PHYSICAL REQUIREMENTS:** The active ingredient shall be a sodium salt of a sulfonated alkyl benzene having a linear side chain which is readily biodegradable. Water-soluble inorganic salts shall comprise the bulk of the remaining ingredients. An anti-caking agent may optionally be added.

The product shall conform to the requirements below, when tested by the procedure of Section 4.

Requirement	Minimum	Maximum	Testing Method
Anionic surfactant, *pbw	90.0	--	4.1
Moisture, *pbw	--	2.0	4.2
Un sulfonated oil, *pbw	--	1.0	4.3
pH in 1% aqueous solution	7.0	9.0	4.4

***pbw: percent by weight**

4. **TESTING:** Testing shall be performed by **American Society for Testing and Materials (ASTM)** procedures: www.astm.org

ASTM D 1568 - Standard Test Methods for Sampling and Chemical Analysis of Alkylbenzene Sulfonates

ASTM D 1681 - Test Method for Synthetic Anionic Active Ingredient in Detergents by Cationic Titration Procedure

ASTM E 70 - Standard Test Method for pH of Aqueous Solutions with the Glass Electrode

JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY, P. O. Box 3489, Champaign, IL 61826-3489 (217) 359-2344: www.aocs.org, July, 1963, p. 257, Weeks, I.R., Haynes, R.T. and Eccles, E.J., Jr.

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Testing shall be done by an independent laboratory (preferred ASTM recommended, <http://www.astm.org/LABS/search.html>). Tests shall be performed on products will be provided to ordering agencies.

The product furnished under this specification shall be tested by the following methods and testing methods listed in the table of Section 3.2:

- 4.1 **Anionic Surfactant:** Determine compliance by the procedure of ASTM D 1681, which involves titration with a standard cationic reagent.
 - 4.2 **Moisture:** Determine the compliance by the procedure of ASTM D 1568.
 - 4.3 **Un sulfonated Oil:** Determine the compliance by the method of codistillation with ethylene glycol, using the procedure of Weeks, Haynes and Eccles, with the exception that the charge to the flask shall include a 10 gram sample weighed to the nearest 0.01 gram, and 20 grams (instead of 40 grams) of 40% aqueous sodium hydroxide solution.
 - 4.4 **pH in 1% Aqueous Solution:** Determine compliance by the procedure of ASTM E 70
5. **INSPECTION:** Products furnished under this specification shall be inspected by, or at the direction of the customer at the time of delivery.
 6. **PACKAGING:** The product shall be packaged for shipment in tightly re-sealable lined fiber drums of approximately 200 pounds (90.7 kg) net contents.

Packing for shipment shall be in accordance with the manufacturer's standard practice and in a manner readily accepted by common carriers engaged in interstate commerce. Within the shipping carton, units shall be packed in a manner designed to minimize damage during the shipment because of rough or improper handling.

6.1. **PACKAGE MARKINGS:** Each shipping container shall be clearly marked with the following:

- 6.1.1. Name of contents, including brand name, if any.
- 6.1.2. Quantity contained in pounds and/or kilograms.
- 6.1.3. Name and address of the manufacturer.
- 6.1.4. Warning statements as required by governmental regulations. A label on a container of a hazardous chemical must meet the requirements of the most current OSHA standards.
- 6.1.5. The following additional information shall either be marked on the container or appear on the shipping documents:
 - Purchase order number or contract number.
 - Name and address of customer.
 - Customer's requisition number.

6.2. **LABELING:** Each container shall bear a durable label containing the name of the product and instructions for use, including required precautionary statements.

7. **COMPLIANCE:** The vendor must comply with the following documents upon delivery:

7.1. Certificate of Analysis (CA): A certificate of analysis from the manufacturer shall be submitted with each shipment.

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7.2. **Material Safety Data Sheets (MSDS):** All Items must conform to the Texas Hazard Communications Act by being certified as nontoxic or providing an official MSDS sheet conforming to the requirements of the most current OSHA standards. A copy of the official MSDS sheet for each applicable chemical product must be submitted with each sample; each initial shipment; and updated MSDS must be provided with the first shipment after update.

8. **APPROVED PRODUCTS LIST (APL):**

The CPA maintains an APL of products that meet or exceed the requirements of this specification. The products being approved are listed as follows:

Manufacturer	Brand Name / Product Number
Condea	Marlon A396
Quimica Nobleza	Sodium Linear Alkyl Benzene Sulfonate
Pilot Industries of Texas, Inc.	Calsoft F-90
Crompton	Witcoate 90 Flakes
Unger	Ufaryl DL 90C
Stepan	Nacconol 90G or 90WC

To have a new product listed on the APL, the following procedures are required:

- 8.1. Submit a written request to CPA, Texas Procurement and Support Services Division and include the following documentations:
- **Official Certificate of Analysis from an independent laboratory**
The official Certificate of Analysis must list the following:
 - ✓ Chemical Name (CTFI/INCI name) and CAS No.
 - ✓ Manufacturer Name
 - ✓ Brand Name or Trade Name
 - ✓ Batch or Lot Identification Number
 - ✓ Each analytical result given as outlined in the RFP specifications
 - ✓ Laboratory Name, Address, and Contact Information
 - **Detailed technical specifications**
 - **Product literature**
 - **Material Safety Data Sheet (MSDS)**
- 8.2. The Certificate of Analysis will be reviewed and if approved, samples will be requested, in writing by CPA, for compatibility testing. The shipping instructions will be provided to the vendor at the time of the request.
- 8.3. A minimum of sixty (60) days will be required for compatibility testing to be conducted.
- 8.4. Sample sizes should be no less than 250 grams for powders and 500 ml for liquids. **Each sample must be accompanied with a current MSDS from the manufacturer.** More samples may be requested in writing by CPA. Samples will not be accepted unless accompanied with the current MSDS document for that material.

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- 8.5. CONTINUED COMPLIANCE: Listing an approved product shall not relieve the vendor of providing products meeting each requirement of this specification. The vendor shall notify the CPA, in writing, of any changes in the product, address, brand name, etc.

- 8.6. REMOVAL FROM APL: Products on the APL may be removed for non-compliance, as determined by the CPA, or for failure to provide notification of any change to APL product(s).