

## Product Bulletin

### STEPANOL® WA-EXTRA K

|                                      |   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
|--------------------------------------|---|--------------------|--------------|----------------------|----|-----------------------|-----|--------------------|-----------|-------------------|-----|-----------------|-----|----------------------|---------|------------------------|----|----------------------------|------------|--------------------------------------|-------------|-----------|----|------------------------|-------------|-----------------------|------------|-------------------|---|--------------|---|
| Product Name                         |   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Chemical Structure                   | $\text{CH}_3(\text{CH}_2)_{10}\text{CH}_2\text{OSO}_3\text{Na}$   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| INCI Name                            | Sodium Lauryl Sulfate   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| CAS Registry No.                     | 68585-47-7 (Alternate CAS No. 151-21-3)   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Applications                         | <p>STEPANOL WA-EXTRA K is a sodium lauryl sulfate produced from the sulfation of fatty alcohol via Stepan's <math>\text{SO}_3</math> process. This process allows the consistent production of a high purity product such as STEPANOL WA-EXTRA K.</p> <p>STEPANOL WA-EXTRA K can be used in a wide variety of personal care and household applications where copious amounts of foam and excellent viscosity building properties are desired. STEPANOL WA-EXTRA K can be used for formulations that are sensitive to levels of inorganic salts and free oil. STEPANOL WA-EXTRA K can be incorporated into shampoos, handsoaps, bath products, shaving creams, ointments, hard surface cleaners, liquid dish detergents and liquid laundry detergents.</p>   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Typical Properties                   | <table><tr><td>Appearance at 25°C</td><td>Clear liquid</td></tr><tr><td>Actives, (MW 302), %</td><td>29</td></tr><tr><td>Unulfated Material, %</td><td>0.3</td></tr><tr><td>Sodium Chloride, %</td><td>0.10 max.</td></tr><tr><td>Sodium Sulfate, %</td><td>0.2</td></tr><tr><td>pH, 10% aqueous</td><td>6.0</td></tr><tr><td>Color, % T at 420 nm</td><td>90 min.</td></tr><tr><td>Viscosity at 25°C, cps</td><td>45</td></tr><tr><td>Flash Point, PMCC, °C (°F)</td><td>&gt;94 (&gt;201)</td></tr><tr><td>Density at 25°C, g/ml (lbs/U.S. gal)</td><td>1.04 (8.65)</td></tr><tr><td>Solids, %</td><td>31</td></tr><tr><td>Boiling Point, °C (°F)</td><td>&gt;100 (&gt;212)</td></tr><tr><td>Freeze Point, °C (°F)</td><td>7.8 (46.0)</td></tr><tr><td>RVOC, U.S. EPA, %</td><td>0</td></tr><tr><td>Preservative</td><td>Methylchloroisothiazolinone/Methylisothiazolinone</td></tr></table> | Appearance at 25°C | Clear liquid | Actives, (MW 302), % | 29 | Unulfated Material, % | 0.3 | Sodium Chloride, % | 0.10 max. | Sodium Sulfate, % | 0.2 | pH, 10% aqueous | 6.0 | Color, % T at 420 nm | 90 min. | Viscosity at 25°C, cps | 45 | Flash Point, PMCC, °C (°F) | >94 (>201) | Density at 25°C, g/ml (lbs/U.S. gal) | 1.04 (8.65) | Solids, % | 31 | Boiling Point, °C (°F) | >100 (>212) | Freeze Point, °C (°F) | 7.8 (46.0) | RVOC, U.S. EPA, % | 0 | Preservative | Methylchloroisothiazolinone/Methylisothiazolinone |
| Appearance at 25°C                   | Clear liquid  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Actives, (MW 302), %                 | 29  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Unulfated Material, %                | 0.3   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Sodium Chloride, %                   | 0.10 max.   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Sodium Sulfate, %                    | 0.2   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| pH, 10% aqueous                      | 6.0   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Color, % T at 420 nm                 | 90 min.   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Viscosity at 25°C, cps               | 45  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Flash Point, PMCC, °C (°F)           | >94 (>201)  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Density at 25°C, g/ml (lbs/U.S. gal) | 1.04 (8.65)   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Solids, %                            | 31  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Boiling Point, °C (°F)               | >100 (>212)   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Freeze Point, °C (°F)                | 7.8 (46.0)  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| RVOC, U.S. EPA, %                    | 0   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Preservative                         | Methylchloroisothiazolinone/Methylisothiazolinone   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Environmental Effects                | STEPANOL WA-EXTRA K is expected to be readily biodegradable. Additional information is available upon request.  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Health Effects                       | STEPANOL WA-EXTRA K is slightly toxic orally ( $\text{LD}_{50} > 2000 \text{ mg/kg}$ ) and may cause moderate skin and severe eye irritation at 10% active.   |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |
| Storage & Handling                   | Normal safety precautions (i.e., use of gloves and safety goggles) should be employed when handling STEPANOL WA-EXTRA K. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material.  |                    |              |                      |    |                       |     |                    |           |                   |     |                 |     |                      |         |                        |    |                            |            |                                      |             |           |    |                        |             |                       |            |                   |   |              |   |



## Storage & Handling

It is recommended that STEPANOL WA-EXTRA K be stored in sealed containers and kept at 60-110 °F (16-43 °C). Avoid overheating or freezing. If material is frozen, mild heat and agitation are recommended to ensure the material is homogeneous before use.

Standard Packaging: STEPANOL WA-EXTRA K is available in bulk and tote.

Bulk Storage Information: Tanks made of 316 stainless steel or fiberglass with an Atlac 382 corrosion liner are recommended. Gear pumps and piping should be 316 stainless steel. Recommended storage for bulk tanks is 90-104 °F (32-40 °C).

## Workplace Exposure

Occupational exposure can occur primarily through skin contact or via inhalation of vapors and mists. Engineering controls, personal protective equipment, and other workplace practices should be used to control these exposures.

## Clearances

All components of STEPANOL WA-EXTRA K are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: United States (TSCA 68585-47-7), Europe (EINECS 271-557-7), Japan (ENCS 2-1679), Canada (DSL 68585-47-7), Australia (AICS 68585-47-7), Korea (ECL Serial No. KE-32620), New Zealand (NZIoC 68585-47-7), Philippines (PICCS 68585-47-7), Taiwan (TCIS 68585-47-7) and China (IECSC 68585-47-7).

STEPANOL WA-EXTRA K is also approved for use under EPA 40 CFR 180.920.

STEPANOL WA-EXTRA K is available as Kosher Certified.

STEPANOL WA-EXTRA K meets the U.S. EPA Safe Choice Program's surfactant screen and is listed on [www.cleangredients.org](http://www.cleangredients.org) (an on-line database for green formulators). For further information, visit [www.cleangredients.org](http://www.cleangredients.org). Additional Stepan ingredient listing can be found at [www.stepan.com](http://www.stepan.com).

**It is the responsibility of the formulator to review the chemical control regulations for each country where the end product is intended to be sold or used.**

## Product Stewardship

This product bulletin has been written in accordance with ACC's Product Stewardship guidelines.

## Additional Safety Information

A Safety Data Sheet is available upon request.



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