



ULTRAMARINE & PIGMENTS LTD  
BLUE DIVISION

ULTRAMARINE BLUE  
TECHNICAL DATA SHEET  
UPL AR-4

**GENERAL INFORMATION:**

- |                        |                                    |
|------------------------|------------------------------------|
| 1. IDENTITY            | : Sodium Aluminium Sulpho Silicate |
| 2. CAS NUMBER          | : 57455-37-5                       |
| 3. COLOUR INDEX NUMBER | : Pigment Blue 29 : 77007          |

**COLOUR PROPERTIES:**

(Blue reduced with five times its weight of Rutile Titanium Dioxide, drawn down and compared with its Batch Standard in CIELab Scale)

- |                          |        |                     |
|--------------------------|--------|---------------------|
| 1. TINTING STRENGTH      | (IN %) | : 100 ± 5.00        |
| 2. COLOUR DIFFERENCE DE* |        | : 1.00 Unit Maximum |
|                          | DL*    | : ± 0.50 Unit       |
|                          | DA*    | : ± 0.50 Unit       |
|                          | DB*    | : ± 0.50 Unit       |

**OTHER PHYSICAL AND CHEMICAL PROPERTIES:**

- |  |                        |
|--|------------------------|
| 1. APPEARANCE                            | : Blue Powder          |
| 2. APPARENT DENSITY (g/cc)               | : 0.50 to 0.85         |
| 3. SPECIFIC GRAVITY                      | : 2.35 (Approximately) |
| 4. MOISTURE CONTENT AT 105°C             | : 2.0% Maximum         |
| 5. WATER SOLUBLE MATTER                  | : 2.0% Maximum         |
| 6. pH (ACID RESISTIVITY)                 | : 4.0 – 5.0 pH         |
| 7. OIL ABSORPTION (% BY WT)              | : 34.00 to 37.00       |
| 8. MEDIAN PARTICLE DIAMETER              | : 2.50 Microns maximum |
| 9. RESIDUE ON 45 MICRONS SIEVE (% BY WT) | : 0.20 Maximum         |

**COLOUR FASTNESS PROPERTIES:**

- |                                     |                                 |
|-------------------------------------|---------------------------------|
| 1. HEAT STABILITY                   | : Stable at 350°C for 5 minutes |
| 2. LIGHT (DAY LIGHT AND XENON LAMP) | : Very good                     |
| IN MASS TONE                        | : 7/8 on woolscale              |
| IN REDUCED TONE                     | : 7/8 on woolscale              |
| 3. IN ACIDS                         | : Stable at pH 4.0 – 5.0        |
| 4. IN ALKALIS                       | : Good                          |

**TOXICITY:**

Least toxic and a safe pigment for industrial applications. It is ecologically non-hazardous and does not create any skin or eye irritation.

**USAGE IN COSMETICS:**

Conforms to regulations in most countries in the world.

**Note:** The information provided above is for general guidelines only and subject to change without notice. Ultramarine & Pigments Limited assumes no responsibility and users are advised to test the products for suitability prior to use on a commercial or production scale.