

## Pigment RED SY-227

### 1. Product Information

**Product Name:** Pigment Red 49:1

**Colour Index No.:** C.I. PR49:1

**Chemical Name:** Lithol Red, Barium Salt Lake

**Chemical Class:** Azo Lake Pigment

**CAS No.:** [1103-38-4] / [5281-04-9]

**EINECS No.:** 214-172-4

**Molecular Formula:** C<sub>18</sub> H<sub>12</sub>BaN<sub>2</sub>O<sub>6</sub> S (May vary)

**Typical Structure:** Based on 2-Naphthalenesulfonic acid,  
4-[(2-hydroxy-1-naphthalenyl)azo]-, barium salt

### 2. Typical Physical and Chemical Properties

Property	Specification / Description
<b>Appearance</b>	Yellowish-red to red powder
<b>Hue</b>	Medium red with a yellowish undertone
<b>Density (g/cm<sup>3</sup>)</b>	Approx. 1.5 - 1.8
<b>Oil Absorption (g/100g)</b>	Approx. 40 - 60
<b>pH Value (10% slurry)</b>	6.5 - 8.5
<b>Lightfastness (1-8)</b>	3-4 (Poor to Moderate)

Property	Specification / Description
<b>Heat Resistance (°C)</b>	140 - 160
<b>Water Resistance (1-5)</b>	4-5 (Good to Excellent)
<b>Oil Resistance (1-5)</b>	3-4 (Moderate to Good)
<b>Acid Resistance (1-5)</b>	2-3 (Limited to Moderate)
<b>Alkali Resistance (1-5)</b>	2-3 (Limited to Moderate)

\*(Note: 1=Poor, 5=Excellent; Actual performance depends on application media and processing conditions)\*

### 3. Application Characteristics

#### Primary Applications:

**Printing Inks:** Historically and currently used in various printing inks, particularly where high lightfastness is not critical. Its bright shade and good tinctorial strength are valued.

**Plastics:** Limited use in plastics (e.g., PVC) where processing temperatures are low and lightfastness requirements are minimal.

**Paper:** Used in paper coating and coloration.

**Other:** Used in rubber, textiles, and other general industrial applications.

**Key Advantages:** Bright, economical red pigment. Good tinctorial strength.

Good transparency in ink applications.

#### Important Limitations:

**Poor lightfastness** limits its use in applications requiring durability.

**Limited heat resistance** restricts its use in many plastics and high-temperature processes.

**Barium content** may be subject to regulatory restrictions in certain applications and regions.