

SIP-1111™ is a biobased asphalt rejuvenator that allows refineries to capture more value from every barrel by converting low-value vacuum tower bottoms and deasphalting pitch into high-performance paving asphalt. Used at low loadings, SIP-1111™ restores lost maltenes, improves compaction and workability, enhances durability (including ΔT_c performance), and supports high recycled asphalt pavement (RAP) usage—all while lowering fumes and improving plant and field conditions. The result is stronger, more flexible asphalt supply without sacrificing fuel or lubricant yield, helping refineries expand product flexibility and offer a renewable-content asphalt option that aligns with modern sustainability and market demands.

SIP 1111 CHARACTERISTICS

OXIRANE OXYGEN	2.6 %
IODINE VALUE	1.5%
ACID VALUE	0.5% max
COLOR (APHA)	150 max
MOISTURE	0.10 max
MOLECULAR WEIGHT (APPROX.)	1000
SPECIFIC GRAVITY	0.947
CAS NO.	8013-07-8

PRODUCT USES:

- High efficiency replacement for flux oil in refinery processes
- Compaction aid
- Hot mix additive
 - Cracking resistance
 - Rutting resistance
 - Aging resistance
 - ΔT_c Performance

ADDITIVES PERFORMANCE:

A 250,000 barrel per day refinery was able to reduce the amount of flux oil from 15% down to 2% SIP-1111-Refinery. This represents a \$17M per month in added asphalt value!

PACKAGING SIZE:

- 55-gallon Drums
- 275-gallon Tote
- Tanker (45,000 lbs.)
- Rail (185,000 lbs.)

STORAGE AND HANDLING:

Shelf Life: 2 years with proper storage and handling.

Materials for Construction: Compatible with carbon steel, 304/316 stainless steels, polyethylene, PVC, CPVC. Temperature limits for non-metallic materials should be considered.

Storage Conditions: Ambient temperatures are ideal. Avoid prolonged storage above 180°F.

Heating Methods: Use low-pressure steam (<15 PSIG) or electric blanket heating. Keep surface contact temperature with SIP 1111 below 250°F.

Temperature Tolerance: Short-term exposure to 250°F is acceptable, but long-term exposure leads to polymerization.

Pump Selection: Centrifugal, gear, or diaphragm pumps suitable.

