TECHNICAL BULLETIN
BERNEL ESTER 105

Chemical Name:	Isodecyl 2,2-Dimethyl Propanoate
INCI Name:	Isodecyl Neopentanoate
CA Index Name:	Propanoic Acid, 2,2-Dimethyl-, Isodecyl Ester
CAS Number:	60209-82-7
EINECS Number:	262-108-6
Empirical Formula:	$C_{15}H_{30}O_2$

PROPERTIES:

Appearance @ 25°C	Clear Colorless to Pale Yellow Liquid
Color, APHA	100 Max
Odor	Slight, Typical
Specific Gravity @ 25°C	0.853 ± 0.005
Pounds per Gallon @ 25°C	7.12
Refractive Index @ 25°C	1.4250 – 1.4290
Molecular Weight (Theoretical)	242
Freeze Point, °C (Typical)	<-20.0
Acid Value, mg KOH/gram	2.0 Max
Free Fatty Acid as Neopentanoic (Mol. Wt. 102), %	0.5 Max
Saponification Value, mg KOH/gram	225 – 245
Iodine Value	Nil
Flash Point, °C (COC)	120

SOLUBILITY: **Soluble** in most hydrophobic solvents such as silicones, esters, vegetable oils, mineral oils, aliphatic, aromatic and chlorinated hydrocarbons. **Partly Soluble** in glycols. **Dispersible** in triols and polyols. **Insoluble** in water

SUGGESTED APPLICATIONS:

Bernel Ester 105 is a highly branched, low molecular weight dry, silky ester that exhibits unique characteristics including extremely low freeze point, low viscosity, good penetrating and anti-tacking power. Other outstanding qualities of **Bernel Ester 105** are solubility and compatibility in a variety of ingredients such as esters, silicones, mineral and vegetable oils. The unique properties of **Bernel Ester 105** lend themselves for use in numerous cosmetic applications; for example, light facial creams, body lotions, skin toners, skin-care products and bath oils. Additionally, **Bernel Ester 105** acts as a replacement for volatile silicones in anti-perspirants where it reduces tackiness and prevents clogging in aerosols.

Listed in TSCA