



Silkflo®

The versatile, clear silky choice!



KEY BENEFITS:

- Unique, non-oily feel
- Usable in a wide pH range
- Conditions and adds shine for hair care
- Reduces or eliminates whitening in AP/DEO formulations

FEATURES:

- Hair conditioners
- Moisturizing lotions
- Cleansing lotions
- Cleansing creams
- Cationic lotions
- Lipsticks
- Anti-perspirants
- Color cosmetics

PRODUCT: Silkflo® 362

EINECS #: NLP No. 500-228-5

INCI NAME: Hydrogenated Didecene

CAS #: 68649-11-6

PRODUCT: Silkflo® 364

EINECS #: NLP No. 500-183-1

INCI NAME: Hydrogenated Polydecene

CAS #: 68037-01-4

PRODUCT: Silkflo® 366

EINECS #: Polymer Exempt

INCI NAME: Hydrogenated Polydecene

CAS #: 68037-01-4

Silkflo® products are clear, colorless, odorless, non-volatile, high purity hydrocarbon liquids. Structurally, they are fully hydrogenated oligomers of 1-decene. There are three products in the **Silkflo®** line: **362**, **364** and **366**. Their unique, non-oily feel sets them apart from mineral oil and other oils, esters and hydrocarbons used in the personal care market. The **Silkflo®** products are used as emollients, moisturizers, hair conditioning agents and solubilizers for active ingredients and fragrances. They are compatible with cyclomethicones, silicone, mineral oil, cosmetic esters, oils and hydrocarbons. They can also be used with waxes to help reduce syneresis in stick formulations. Because they are fully hydrogenated, the **Silkflo®** products are resistant to oxidation and stable over a wide pH range, allowing them to be used in low and high pH systems.

Silkflo® offers clear advantages that extend the opportunities for imaginative formulators. A variety of formulations have been developed using **Silkflo®** as an alternative to mineral oil, squalane, cyclomethicone and polyisobutene. **Silkflo®** products are the ideal choice for moisturizing lotions, non-oily cleansing lotions, non-oily emollient bars, water-in-oil cleansing creams and cationic lotions.

All **Silkflo®** products are non-comedogenic, non-toxic, and non-irritating. **Silkflo®** has a history of safety in personal care formulations and complete technical backing.

Lipo®

A Vantage Specialty Chemicals Business

SILKFLO®_SS

**INEOS
Oligomers**

Silkflo® is a registered trademark of INEOS Oligomers



EMOLLIENTS

www.lipochemicals.com

080814

The versatile, clear silky choice!

SILKFLO® 362

Hydrogenated Didecene

A unique, remarkably light, non-oily emollient

SILKFLO® 364

Hydrogenated Polydecene

Similar to squalane in molecular weight, structure and feel

SILKFLO® 366

Hydrogenated Polydecene

A higher viscosity choice

TYPICAL PROPERTIES OF SILKFLO®

	362**	364†	366‡
Viscosity @ 40°C, cSt	4.5-6.5	16-18	29-33
Pour Point, °C	< -55	< -65	<-60
Flash Point, °C	>160	>224	>238
Specific Gravity @ 60°F	0.798	0.819	0.827
Refractive Index @ 20°C	1.4452	1.4554	1.4595
APHA Color	< 10	< 10	< 10
Recommended Use Level	1-8% avg. and higher	1-8% avg. and higher	1-8% avg. and higher

**Silkflo® 362 consists of greater than 95% hydrogenated didecene

†Silkflo® 364 consists of ~85% hydrogenated tridecene and ~15% hydrogenated tetradecene

‡Silkflo® 366 consists of ~34% hydrogenated tridecene, ~44% hydrogenated tetradecene, ~22% hydrogenated pentadecene and higher molecular weight oligomers

SKIN MOISTURIZATION TEST BY THE SKIN STUDY CENTER

Materials	Increase in Electrical Conductivity
-----------	---

Silkflo® 362	28%
Cyclomethicone	25%

Silkflo® 364	41%
Squalane	44%

Silkflo® 366	48%
White Mineral Oil	33%
Isopropyl Myristate	42%

Representative Didecene Structures



Representative Polydecene Structures



All data, including the formulations and procedures discussed herein, to the knowledge of Lipo Chemicals, Inc. (Lipo), are believed to be correct, reliable and accurate. Please note, however, that Lipo does not warrant or guarantee any accuracy, reliability or completeness of the information contained herein. It is the user's responsibility to determine the suitability and completeness of such information for the user's particular use (including performing any necessary confirmatory tests). Lipo is not responsible or liable for any loss or damage that may occur from the use of this information, nor do we warrant against any patent infringement. Nothing contained herein shall be construed as providing any permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

LIPo CHEMICALS, INC. 207 19TH AVENUE, PATERSON, NJ 07504 | T. 973.345.8600 | F. 973.345.8365 | www.lipochemicals.com

EMOLLIENTS