

INEOS Oligomers

February 2009

Silkflo® 362 didecene and Silkflo® 364 and 366 polydecenes Regulatory Bulletin

FOREWORD

This bulletin summarizes regulatory information for Silkflo Didecene and Polydecene including chemical inventory status and clearances for applications such as cosmetics/personal care use, food contact use, agricultural use, and others.

CHEMICAL INVENTORY INFORMATION

Many countries have chemical control legislation in place including a comprehensive list of existing chemicals which may be marketed, manufactured or imported. These lists are known as chemical inventories. The following table indicates the regulatory approvals that have been granted for Silkflo® 362, CAS # 68649-11-6 and for Silkflo® 364 and 366, CAS # 68037-01-4.

Table 1 – Summary of Chemical Inventory Status

Country	<i>Inventory</i>	<i>Status</i>
Australia	AICS	Listed
Canada	DSL	Listed
China	IECS	Listed
Korea	ECL	Listed
Europe	EINECS	In compliance
Japan	ENCS	Listed
Philippines	PICCS	Listed
USA	TSCA	Listed

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INEOS Oligomers

FOOD CONTACT STATUS

U.S. FDA: Didecene and polydecene products Silkflo® 362, 364 and 366 meet the requirements for food contact applications as defined by the U.S. Food and Drug Administration in Title 21 Code of Federal Regulations 178.3620(b), Technical Grade White Mineral Oil. These clearances are summarized in Table 2 below. Refer to individual regulations to determine any limitations or specifications on use.

Table 2 – Summary of U.S. FDA Clearances

<i>21 CFR Citation</i>	<i>Title of Regulation</i>
175.105	Component of adhesives
176.200	Defoaming agents used in coatings
176.210	Defoaming agents used in the manufacture of paper and paperboard
177.2260	Resin-bonded filters; substances employed in fiber finishes
177.2600	Plasticizers in rubber articles intended for repeated use subject to limitations specified
177.2800	Textiles and textile fibers for use at levels not to exceed 0.15 wt.% of finished fibers
178.3570	Lubricants with incidental food contact subject to the limitations specified
178.3910	Surface lubricants used in the manufacture of metallic articles

It is, however, the responsibility of the customer to determine that all conditions and specifications outlined within these regulations are met, and that the products fabricated from these materials are acceptable to the FDA for use in their intended food-contact applications.

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INEOS Oligomers

European Regulations: Silkflo® 362, 364 and 366 are produced from monomers as listed in Annex V, Section A, of Commission Directive 90/128/EEC relating to plastic materials and articles intended to come into contact with foodstuffs. To ensure compliance with the Commission Directive 90/128/EEC, the overall migration limit of max. 10 mg/dm² contact surface or 60 mg/kg food must be met by the final article coming into contact with foodstuffs. The specific migration limit for the monomer used in didecene and polydecenes is 0.5 kg/mg.

Polydecenes as additives in food contact materials are currently covered under National Legislation. We are working on obtaining authorization under the Scientific Committee for Food (SCF) of the European Commission.

COSMETICS/PERSONAL CARE PRODUCTS

Silkflo Didecene and Polydecenes are used in various cosmetic and personal care applications

The CTFA/INCI name for Silkflo® 364 /366 is Hydrogenated Polydecene. CAS# 68037-01-4

The CTFA/INCI name for Silkflo® 362 is Hydrogenated Didecene. CAS #68649-11-6

Silkflo 364 and 366 products meets the requirements specified in the JSCI Ingredient Code 502029, “α-Olefine Oligomer”, Standard Code 42. They can therefore be used in the cosmetic applications specified for these components, categories 1 through 11 inclusive.

Comprehensive Licensing Standards (CLS) Categories 1999

- 1 - Cleansing Preparations
- 2 - Hair Care Preparations
- 3 - Treatment Preparations
- 4 - Makeup Preparations
- 5 - Fragrant Preparations
- 6 - Suntan and Sunscreen Preparations
- 7 - Nail Makeup Preparations
- 8 - Eyeliner Preparations
- 9 - Lip Preparations
- 10 - Oral Preparations
- 11 - Bath Preparations

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INEOS Oligomers

MANUFACTURING ORIGIN AND PURITY

Silkflo Didecene and Polydecene are additive and solvent free products.

“N” SUBSTANCES

None of the raw materials used in the manufacture of Silkflo Didecene or Polydecene are classified as dangerous to the environment with the symbol “N” in Annex 1 of the Directive 67/548/EEC (adapted to technical progress for the 28th time by Directive 2001/59/EC).

CALIFORNIA PROPOSITION 65

Silkflo Didecene and Polydecene do not contain any substances listed under California Proposition 65.

HEAVY METALS, WEEE, WASTE PACKAGING, CONEG

Silkflo Didecene and Polydecene meet the relevant requirements of the following Directives or Regulations:

- 2003/11/EC
- 2002/96/EC (WEEE)

Cadmium, lead, mercury, and hexavalent chromium or compounds of these metals are not used raw materials in the manufacture of Durasyn[®] Polyalphaolefins. Therefore, the incidental total level of these metals in these products is far below the limit of 100 ppm as set up in the two following legislations.

- 94/62/EC (Packaging Waste Directive)
- USA CONEG Regulation

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END-OF LIFE VEHICLES

Silkflo Didecene and Polydecene meet the relevant requirements of Directive 2000/53/EC.

RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (RoHS)

Lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE), listed in Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) are not used as raw materials in the manufacture of Silkflo Didecene and Polydecene.

PHTHALATES

Phthalates are not used as raw materials in the manufacture of Silkflo Didecene and Polydecene.

DIOXINS AND FURANS

Dioxins and furans are not used as raw materials in the manufacture of Durasyn[®] Polyalphaolefins. These substances will not be generated and released during the manufacture and processing of these grades.

OZONE LAYER-DEPLETING AGENTS

Chlorofluorocarbons (CFC's) and substances related to ozone depleting substances (as defined by the MONTREAL PROTOCOL and listed as class I & II substances by the US Clean Air Act) are not used as raw materials in the manufacture of Silkflo Didecene and Polydecene.

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INEOS Oligomers

ABSENCE OF SUBSTANCES AND CHEMICALS

None of the following substances are used as raw materials in the manufacture of Silkflo Didecene and Polydecene.

- Allergens (as defined in Directive 2000/13/EC, as amended)
- Aromatic amines and colorants
- Azodicarbonamide or semi-carbazide compounds
- Asbestos
- Brominated flame retardants
- Bisphenol-A
- Di(ethylhexyl) adipate
- Epoxidised Soya Bean Oil (ESBO)
- Formaldehyde (formol)
- Latexes
- Nonylphenol and its derivatives
- Tert-butyl-4-hydroxyanisole (BHA) and 2,6-di-tert-butyl-p-cresol (BHT)
- Tributyl-tin (TBT), dibutyl-tin (DBT), monobutyl-tin (MBT) or any other organo-tin compounds
- Poly(aromatic hydrocarbons) according to US Environmental Protection Agency Method 610 (EPA 610)
- Vinyl chloride monomer and its polymers or copolymers

BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) – TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHY (TSE)

Silkflo Didecene and Polydecene are produced entirely by a petrochemical process, with all feedstocks coming from oil refinery streams. No vegetable material, animal fats, oils, milk products or other animal products are used as components of, or in the manufacture of these products.

GENETICALLY MODIFIED ORGANISM (GMO)

No genetically modified substances are used as raw materials in the manufacture of Silkflo Didecene and Polydecene.

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INEOS Oligomers

MATERIAL SAFETY DATA SHEETS / SAFETY DATA SHEETS

Material Safety Data Sheets (MSDS /SDS) are available for all Silkflo Didecene and Polydecene, and describe the health, safety and environmental characteristics of these products as well as advice on handling precautions and emergency procedures.

MSDS should be consulted and fully understood before handling, storage or use of Durasyn[®] Polyalphaolefins,. To request a copy of a specific Silkflo Didecene and Polydecene, grade Material Safety Data Sheet, phone 1-866-363-2454 Toll Free – (North America), +32 (0)67 875 980 (Europe), +86 21 6103 5970 (Asia), or send an e-mail to oligomersmsds@ineos.com.

INEOS CARES

This bulletin has been prepared by INEOS' Product Stewardship Department. Product Stewardship responsibly manages HSE issues and activities related to the supply and marketing of products, including HSE, R&D, marketing and manufacturing functions, thus embracing every stage of the petrochemical product lifecycle.

For more information, please call 1-866-363-2454 Toll Free in North America.

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