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Updated: March 28, 2021

## Marlex® Polyethylene Appendix to PROs:

### Substances and Chemicals

None of the following substances are intentionally used as additives or raw materials in the manufacture of Marlex® Polyethylene.

- Abietic acid
- Acrolein
- Acrylamide (CAS® Number 79-06-1) or n-methylolacrylamide (CAS® Number 924-42-5)
- Acrylonitrile, acrylonitrile co-polymers, or Polyacrylonitrile (PAN)
- Aflatoxin and Mycotoxin; or derivatives of these substances
- Alkylphenols
- Alkylphenol Ethoxylates, including nonylphenol ethoxylate and octylphenol ethoxylate
- Allergens, including but not limited to those listed in EU Regulation 1169/2011, Directives 2000/13/EC, 2003/89/EC, and Section B.01.010.1 (1) of Canadian Regulation C.R.C., c. 870, and US FDA Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) such as: peanuts, tree nuts, milk or whey, eggs, soybeans, fish, shellfish.
- 1-Amino-2-propanol (CAS® No. 78-96-6)
- Ammonium fluoride ((NH<sub>4</sub>)F; CAS® No. 12125-01-8)
- Antibiotics (e.g. Beta lactam or antibiotics other than beta lactam)
- Antimony or related compounds
- Aromatic amines
- Arsenic (CAS® Number 7440-38-2) or arsenic related compounds
- Arylamines
- Asbestos
- 5-(4'-(azidomethyl)-5-(4'-(azidomethyl)-[1,1'-biphenyl]-2-yl)-1H-tetrazole [1,1'-biphenyl]-2-yl)-1H-tetrazole
- Azo and azoxyalkyl compounds (e.g. Azodicarbonamide; azo amines)
- Barium
- Barium sulfate (CAS® No. 7727-43-7) BaSO<sub>4</sub>
- 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters (CAS No.® 68648-93-1)
- 1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters (CAS No.® 68515-51-5)
- 1,2 Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich (DINP; CAS No.® 68515-48-0)
- 1,2-benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich(DIDP; CAS No.® 68515-49-1)
- 1,2 Benzenedicarboxylic acid, di-C11-14 branched alkyl esters C-13 rich (CAS No.® 68515-47-9)
- Benzopentaphene (CAS® No. 189-55-9)
- Benzophenone (CAS® No. 119-61-9)
- Benzoyl chloride (CAS® No. 98-88-4)
- 2,2-Bis(4-hydroxyphenyl)propane bis(2,3-epoxypropyl) ether; synonym: Bisphenol A diglycidyl ether (BADGE) CAS® Number 1675-54-3, Bis (hydroxyphenyl)methane bis(2,3-epoxypropyl) ether (BFDGE), and/or Novolac glycidyl ethers (NOGE)

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- Biocides (e.g. as defined by Biocidal Products Regulation (BPR) 528/2012 and 334/2014).
- Bisphenol compounds, including but not limited to: BPA, BPAF, BPB, BPC, BPE, BPF, BPH, BPS, and BPZ
- Brominated or halogenated flame retardants
- Butylated Hydroxyanisole (BHA; CAS<sup>®</sup> No. 25013-16-5), and Tertiary butylhydroquinone (TBHQ; CAS<sup>®</sup> No. 1948-33-0)
- Cadmium
- Catechol, also known as pyrocatechol or 1,2-dihydroxybenzene (CAS<sup>®</sup> No. 120-80-9)
- Cellulose
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC)
- Chlorinated paraffins (short chain, medium chain, or long chain)
- Chloroprene monomer
- Cobalt (CAS<sup>®</sup> No. 7440-48-4)
- Cobalt oxide (CoO; CAS<sup>®</sup> No.1307-96-6)
- Colophony (e.g. wood rosin, gum rosin, tree rosin or yellow rosin CAS<sup>®</sup> No. 8050-09-7)
- Cyanuric acid; 1,3,5-Triazinane-2,4,6-trione (CAS<sup>®</sup> No. 108-80-5; dihydrate 6202-04-6)
- Decabromodiphenyl ether (DecaBDE; DBDE; CAS<sup>®</sup> No. 1163-19-5)
- Dibenzo[b,def]chrysene; dibenzo[a,h]pyrene (CAS<sup>®</sup> No. 189-64-0)
- Dibutan-1-yl(dichloro)stannane (CAS<sup>®</sup> No. 683-18-1)
- Dibutyl Adipate (DBA; CAS<sup>®</sup> No. 105-99-7)
- 1,2-Dichlorobenzene; o-Dichlorobenzene (oDCB; CAS<sup>®</sup> No 95-50-1)
- 2,4-Dichlorophenol (CAS<sup>®</sup> No. 120-83-2)
- Di(ethylhexyl) adipate (DEHA), diethyl hydroxyl amine (DEHA), or di(ethylhexyl)maleate (DEHM)
- Dimethylfumarate (DMF; CAS<sup>®</sup> No. 624-49-7; C<sub>6</sub>H<sub>8</sub>O<sub>4</sub>) or methyl fumarate or mono-methyl fumerate (CAS<sup>®</sup> 2756-87-8; C<sub>5</sub>H<sub>6</sub>O<sub>4</sub>)
- 1,4-Dioxane (Diethylene dioxide CAS<sup>®</sup> No. 123-91-1)
- 2,6-Diisopropyl Naphthalene (DIPN; CAS<sup>®</sup> No. 24157-81-1)
- 3,4-Dimethylbenzotrile (CAS<sup>®</sup> No. 22884-95-3)
- Dimethyl phenyl carbinol/ α,α-Dimethylbenzyl alcohol/ 2-phenyl-2propanol (CAS<sup>®</sup> No. 617-94-7)
- Dioxins or furans; or derivatives of these substances
- Endocrine disruptors e.g. Alkylphenol ethoxylate (APE), Nonylphenol ethoxylate (NPE), Octylphenol ethoxylate (OPE); EPA Tier 1 Screening List, EU Medical Directive Restrictions (MDR), EU ECHA ED Screening List
- Epoxy derivatives listed in EU Directives 2002/16/EC and 1895/2005
- Epoxidized Soybean Oil
- Ethanol, 2,2'-iminobis-, N-(C13-15-branched and linear alkyl) derivs. (CAS<sup>®</sup> No. 97925-95-6)
- 2-Ethoxyethanol (CAS<sup>®</sup> Number 110-80-5) or 2-Methoxyethanol (CAS<sup>®</sup> No. 109-86-4)
- 4-Ethylocta-3-enenitrile (CAS<sup>®</sup> No. 29127-85-3)
- FDA Banned Food Additives: benzophenone, ethyl acrylate, eugenyl methyl ether, myrcene, pulegone, pyridine, styrene
- Fluazifop-butyl (CAS<sup>®</sup> No. 69806-50-4)
- Fungicides, preservatives (for the purpose of preserving food in packaging), or fumigants
- Gasoline, natural (CAS<sup>®</sup> No. 8006-61-9)

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- Genetically-modified organisms (GMO)
- Hexachlorobutadiene (HCBd; CAS<sup>®</sup> No. 87-68-3)
- Hexachlorobenzene (HCB; CAS<sup>®</sup> No. 118-74-1)
- Human materials, derivatives of human materials, blood or blood products
- 2-isobutoxyethanol (CAS<sup>®</sup> No. 4439-24-1)
- Isocyanates
- Isopentyl Pentyl Phthalate a.k.a N-pentyl-isopentylphthalate (nPIPP); 1,2-Benzenedicarboxylic Acid 1-(3-Methylbutyl) 2-pentyl Ester (CAS No.<sup>®</sup> 776297-69-9)
- Isophorone (CAS No.<sup>®</sup> 4098-71-9)
- Isopropylthioxanthone (ITX; CAS No.<sup>®</sup> 5495-84-1)
- Lactose (CAS No.<sup>®</sup> 63-42-3)
- Lanthanides
- Latex (Natural rubber latex, dry natural rubber, or synthetic latex)
- Lignin
- Lithium hydroxide monohydrate (CAS<sup>®</sup> No. 1310-66-3)
- Melamine (CAS<sup>®</sup> No. 108-78-1)
- Mercury
- Methanesulfonic acid (CAS<sup>®</sup> No. 75-75-2)
- Methyl acetate (CAS<sup>®</sup> No. 79-20-9)
- Methyl bromide; Bromomethane (CAS<sup>®</sup> No. 74-83-9)
- Methyl ethyl ketone (MEK); Methyl isobutyl ketone (MIBK; CAS<sup>®</sup> No. 108-10-1)
- Methylmercuric chloride (CAS<sup>®</sup> No 115-09-3)
- Microorganisms, yeast, or bacteria not intentionally contained
- Methyl fumarate or mono-methyl fumarate (CAS<sup>®</sup> 2756-87-8; C<sub>5</sub>H<sub>6</sub>O<sub>4</sub>)
- Naphthalene (CAS<sup>®</sup> Number 91-20-3)
- Nitrites, Nitrates, Nitrosamines, Nitrosamines impurities: see section below
- Nitrocellulose (CAS<sup>®</sup> No. 9004-70-0)
- p-Nitrochlorobenzene (CAS<sup>®</sup> No. 100-00-5)
- N-methyl-2-pyrrolidone (CAS<sup>®</sup> No. 872-50-4)
- Nonyl phenol (NP; CAS<sup>®</sup> No. 25154-52-3)
- N-vinyl-2-pyrrolidone (CAS<sup>®</sup> No. 88-12-0)
- Octabromobiphenyl ether (CAS<sup>®</sup> Number 32536-52-0)
- Optical brighteners
- Organotin compounds
- Organophosphate Halogenated Flame Retardants (HFRs; e.g. Dechlorane Plus, Tetrabromobisphenol A (TBBPA), polybrominated diphenyl ethers (PBDEs))
- Oxiran-2-ylmethyl methacrylate (CAS<sup>®</sup> No. 106-91-2)
- Oxo-degradable additives, oxo-degradable plastics, or pro-oxidative additives
- Ozone-depleting chemicals
- Parabens (e.g. ethyl paraben, propyl paraben, butyl paraben)
- Pentachlorophenol (PCP; CAS<sup>®</sup> No. 87-86-5) See (EU) 2021/277 POPs
- Pentachlorothiophenol (PCTP; CAS<sup>®</sup> No. 133-49-3)
- Perchlorates

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- Perchloroethylene (CAS® No. 27-18-4)
- Pesticides and fungicides
- Phenol, isopropylated phosphate (3:1); Tris(isopropylphenyl) phosphate (PIP; CAS® Number 68937-41-7)
- Photoinitiators, including: benzophenone, hydroxybenzophenone, and 4-methylbenzophenone, and Isopropylthioxanthone (ITX)
- Phthalates, orthophthalates (see Phthalates section in PRO document and below)
- Plasticizers
- Poly- and perfluoroalkyl substances (PFAS), as perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), or perfluorohexanoic acid related compounds (PFHxAs) (Undecafluorohexanoic acid) CAS® Number: 307-24-4 and as listed by the National Defense Authorization Act for Fiscal Year 2020 (NDAA) for TRI reporting to EPA or per EU 2019/1021, 2020/784, and 2021/115.
- Polycyclic aromatic hydrocarbons (PAH), also called polyaromatic hydrocarbons
- Polybrominated Diphenyl Ethers (PBDEs) included: decaBDE, octaBDE, and pentaBDE
- Polycarbonates
- Polychlorinated and Polybrominated Biphenyls (PCBs and PBBs)
- Polychlorinated and Polybrominated Terphenyls (PCTs and PBTs)
- Polydimethylsiloxane (PDMS)
- Polyhydroxyalkanoates (PHAs) polyesters produced by microorganisms/bacterial fermentation
- Polylactic Acid, Polylactic Acid as a rigid structure (CAS® Number 26100-51-6)
- Polystyrene or expanded Polystyrene (CAS® Number 9003-53-6) or other polymeric foam materials as shock absorbers (e.g. Expanded Polypropylene, Expanded Polyethylene, or Expanded Vinyl Acetate)
- Polyurethane
- Polyvinyl Chloride (CAS® Number 9002-86-2; PVC)
- Polyvinylidene chloride a.k.a. Polyvinylidene Dichloride (PVDC; CAS® Number 9002-85-1) or copolymers
- Propiconazole (CAS® Number 60207-90-1)
- Quinalofop-P-tefuryl (ISO); (+/-) tetrahydrofurfuryl (R)-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy]propionate (CAS® Number 200509-41-7)
- Radioactive Substances
- Recycled materials (i.e. No post-consumer recycled materials utilized)
- Regenerated cellulose
- Selenium
- Silicone or Silicone Oil (CAS® No. 63148-62-9), Polysilicon (also called polycrystalline silicon or silicone CAS® No. 7440-21-3) or Siloxanes
- Sodium fluoride (CAS® No. 7681-49-4)
- Sodium hydrosulfide (CAS® No. 16721-80-5)
- Sodium sulfide (CAS® No. 1313-82-2)
- Styrene (CAS® Number 100-42-5)
- Sulfonamides
- Terephthaloyl dichloride (CAS® No. 100-20-9)
- Tertiary butylhydroquinone (TBHQ; CAS® No. 1948-33-0)

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- Tin
- 1,1,1-Trichloroethane (CAS<sup>®</sup> No 71-55-6)
- Triclosan (2,4,4'-trichloro-2'-hydroxydiphenylether), Triclocarban
- Trimellitate (e.g. Trimethyl trimellitate CAS<sup>®</sup> No. 2459-10-1, Tris-2-ethylhexyl trimellitate CAS<sup>®</sup> No. 3319-31-1)
- 2,4,6-tris(tert-butyl)phenol; 2,4,6-Tri-tert-butylphenol (2,4,6-TTBP) (CAS<sup>®</sup> No. 732-26-3)
- Tris-Nonylphenol Phosphite (TNPP) (CAS<sup>®</sup> No. 26523-78-4)
- Vinylidene chloride (Dichloroethene), Vinyl Chloride Monomer (VCM), Polyvinyl Chloride (CAS<sup>®</sup> Number 9002-86-2; PVC), Polyvinylidene Dichloride (PVDC) or copolymers

### **Nitrosamine related substances**

To the best of our knowledge this product does not intentionally use nitrosamine or the following:

- HNO<sub>2</sub> (Nitrous Acid), HNO<sub>3</sub> (Nitric Acid)
- Nitrosamines, Nitrosamines impurities: N-nitrosodimethylamine (NDMA), N-Nitrosodiethylamine (NDEA), N-diisopropylnitrosoamine (NDIPA), N-ethyl-N-isopropylnitrosoamine (NEIPA); or nitrosating reagent NaNO<sub>2</sub>
- Nitrites, Nitrates (e.g. NaNO<sub>2</sub> (Sodium Nitrite))
- NO (Nitric Oxide) e.g. as impurity in HNO<sub>3</sub> for nitration reactions
- Nitrosyl halides (e.g. ClNO, BrNO)
- Dinitrogen trioxide (N<sub>2</sub>O<sub>3</sub>), Dinitrogen tetroxide (N<sub>2</sub>O<sub>4</sub>)
- Organic nitrites (e.g. t-BuONO)
- NH<sub>2</sub>OH (Hydroxylamine)
- Ozone
- Chloramines; Nitroso (nitrite, nitrate, chloroamine) reagents
- Trimethylamine, diethylamine, triethylamine, Hunig's base, piperidine
- Azide reagents
- N-Methyl-2-pyrrolidone (NMP)
- Tributyltin chloride CAS<sup>®</sup> No. 1461-22-9
- Nitrocellulose
- Dimethylacetamine/ N,N-dimethylacetamide (DMA) or Diethylacetamide (DEA),
- N-Nitroso-N-methyl-4-aminobutyric acid (NMBA)
- N-nitrozodiisopropylamine (DIPNA, CAS<sup>®</sup> 601-77-4), N-nitrosoethylisopropylamine (EIPNA)
- Triethylamine, Diethylamine, Monoethylamine, Diethanolamine, Trimethylamine, Dimethylamine
- Tributylamine (TBA), Dibutylamine
- Diisopropylethylamine (DIPEA)
- N-Methylmorpholine (NMM)
- Tetra Butyl Ammonium Bromide (TBAB)

These substances are not used in the formulation of this product and to the best of our knowledge are not used in the production process for this product.

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## **Phthalates**

No phthalates, including di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), di-n-octyl phthalate (DNOP), diisobutyl phthalate (DIBP), dimethyl phthalate (DMP), and diethyl phthalate (DEP) are intentionally added to this product. This product therefore meets the requirements of the Consumer Product Safety Improvement Act of 2008 and EU Directive 2005/84/EC.

Other phthalates not used: ortho-phthalate, di-n-butyl phthalate.

## **Regulatory or Industry Lists**

To the best of our knowledge this product meets the following requirements as being within stipulated limits as listed as of this date:

- Stockholm Convention Persistent Organic Pollutants (POPs): Directive 850/2004/EC, EU 2019/1021, EU 2021/115, 2020/784, and 2021/277 substances not used.
  - [Listing of POPs in the Stockholm Convention](#)
  - [List of substances subject to POPs Regulation - ECHA \(europa.eu\)](#)
- Rotterdam Convention Prior Informed Consent (PIC) substances Annex III substances not used: <http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx>
- Substances in the Japan Class I Specified Chemical list not used.
  - [J-CHECK\(English\) \(nite.go.jp\)](#)

## **Polyolefin Oligomeric Saturated Hydrocarbons (POSH)**

Small amounts of oligomers are produced in the polyolefin process. Although lower molecular weight hydrocarbons are more readily removed, higher molecular weight hydrocarbons are reasonably anticipated to be present.

## **Other information**

**Country of origin (COO):** Contact your sales person or Customer Account Coordinator (CAC).

**Only Representative (OR) Services:** Contact your sales representative.

**ISO 9000/ Quality:** [See this link](#)

**Irradiation:** This product has not been irradiated by gamma rays, electron beam, or x-rays.

**CMRs:** See EU SDS for statement on Regulation (EC) No. 1272/2008 of the European Parliament and of the Council or US SDS section 2.

**US EPA SARA:** See SDS

**SDS Product Finder:** Enter SDS product name or number  
<https://www.cpchem.com/what-we-do/product-finder>

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California act: [California Transparency in Supply Chains Act \(CPSIA\)](#):

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