



HANWHA CHEMICAL
POLYOLEFIN BUSINESS UNIT

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Korea

Product Regulatory Information Sheet

mLLDPE

Hanwha mLLDPE Grades :

Classification	Grade
Film	M1810HA, M1810HC, M1810HN, M1835HN, M2535HN, M2710HN, M2010EA, M2010EN, M1605EN, M2703EN, M3505EB, M2505EN V1408DN, V1408DC
PE-RT	M3705AN

Product Manufacturer :

This product, Metallocene Linear Low Density Polyethylene, mLLDPE is manufactured by Yeosu Plant in Hanwha Solutions/Chemical

REACH (Regulation (EC) No. 1907/2006)

Substances of Very High Concern (SVHC)

Hanwha mLLDPE is not manufactured or formulated with any of the candidate chemical substances proposed to be Substance of Very High Concern (List dated June 20, 2016) as stated in REACH (Regulation No. 1907/2006).

Chemical Inventories :

All ingredients in this product, mLLDPE is in compliance with the following chemical inventories :

- United States : TSCA - Toxics Substances Control Act Inventory
- Canada : DSL - Domestic Substances List
- Europe : EINECS/ELINCS replaced by REACH
- Australia : AICS - Australia Inventory of Chemical Substances
- New Zealand : NZIoC - New Zealand inventory of Chemicals
- Korea : KECL - Korean Existing Chemicals List
- Japan : ENCS - Japanese Inventory of Existing and new Chemical Substances
- The Philippines : PICCS - Philippines Inventory of Chemicals and Chemical Substances
- China : IECSC - Inventory of Existing Chemical Substances Manufactured or Imported in China

Food Contact :

Hanwha mLLDPE complies with U.S. FDA regulation 21 CFR 177.1520 (c) 2.1.

Hanwha mLLDPE complies with following EU Regulations on Food Contact Materials (FCM).

- (EC) No 1935/2004 - Food Contact Materials Regulations
- (EC) No 10/2011 - European Commission Regulation (2018/831, 2019/37, 2019/1338, 2020/1245, 2023/1627)
- 94/62/EC – EU Directive on Packaging and packaging waste

Hanwha mLLDPE complies with German Food, Articles of daily use and feed code of September 1, 2005 (LFGB), Section 31.

Hanwha mLLDPE complies with German Food, Articles of daily use and feed code of September 1, 2005 (LFGB), Section 30, European Commission Regulation (EU) No 10/2011 and BfR recommendation.

Hanwha mLLDPE complies with European Commission Regulation (EU) No 10/2011

This product complies with China GB 9685-2008.

Heavy Metals, RoHS

Hanwha mLLDPE complies with the following legislation.

- 2002/95/EC (RoHS) as amended by 2008/385/EC.
- US CONEG Model Legislation for requirement regarding the define limit for the sum of heavy metals.
- CALIFORNIA'S PROPOSITION 65 LEAD PROTOCOL.

Other Legislation

Hanwha mLLDPE complies with the following legislation.

- Directive 2012/19/EU, WEEE - Waste Electrical & Electronic Equipment.
- ANIMAL ORIGIN. Compliance with the requirements specified in the 'Note for Guidance on minimizing the risk of transmitting animal spongiform encephalopathy agents via human and veterinary medicinal products' (EMA/410/01 Rev.3 – July 1, 2011).
- Regulation 2017/821 about conflict minerals.

Absence of Substances and Chemicals

The following substances are not used in the manufacture of or formulation of this product. We hereby certify that the chemical materials in the list below have not been intended to use during the product's manufacture.

- Acrylamide
- Alcohol derivatives / tert-Butyl alcohol
- Alkylphenol Etoxylates, including nonylphenol ethoxylate and octylphenol ethoxylate
- Allergens (i.e., peanuts, tree-nuts, milk, eggs, wheat gluten, soy, fish, and shellfish)
- Antimony(Sb) and Antimony compounds
- Arsenic(As) and Arsenic compounds / Nickel(Ni)
- Amines / Aromatic amines / Asbestos / Azo compounds / Dioxins
- Benzophenone derivatives
- Beryllium and Beryllium compounds
- Biocides
- Bisphenol compounds, BPA, BPB, BPC, BPE, BPF, BPS, BPZ
- BHT - Butylated Hydroxytoluene, and BHA - Butylated Hydroxyanisole
- Bumetrizole
- Butylparaben
- Cadmium and Cadmium compounds
- Chlorofluorocarbons (CFCs) or Hydrochlorofluorocarbons (HCFCs)
- Chlorinated paraffins
- Copper and Copper compounds
- Colorants or Pigments
- Dimethylfumarate (DMF)
- Disodium tetraborate, anhydrous
- Endocrine disruptors

- Epoxy derivatives listed in EU Directive 2002/16/EC
- Ethylene Bis Stearamide
- Formaldehyde
- GMOs - Genetically-modified Organisms
- Halogenated (Brominated or chlorinated) or phosphorous base flame retardants
- HBCD - Hexabromocyclododecane
- HCBD - Hexachlorobutadiene
- Imidazole derivatives
- Materials derived from animal sources
- Melamine / Methyl bromide / Bromochloromethane
- Mercury and Mercury compounds
- Methylchloroisothiazolione
- Methyl Chloroform
- Molybdenum trioxide
- Natural rubber latex and dry natural rubber
- Nitrocellulose
- NDEA – N-Nitrosodiethylamine / Nitrosoamine
- NDMA – N-Nitrosodimethylamine / Nitrosoamine
- NMBA – N-Nitrosomethylaminobutyric acid / 4-[Methyl(nitroso)amino]butanoic acid
- Nonyl phenol / Toluene / Phthalates
- Organo-Tin Compounds / Tributyl Tins(TBT) / Triphenyl Tins(TPT)
- Ozone-depleting chemicals
- Polyaromatic Hydrocarbons (PAHs) listed in Regulation 1907/2006/EU Annex XVII(1272/2013/EC)
- PBDEs - Polybrominated Diphenyl Ethers / Cyclopentyl methyl ether / Decabromodiphenyl ether
- PCBs and PBBs - Polychlorinated and Polybrominated Biphenyls
- PCN – Polychlorinated naphthalenes
- PCTs and PBTs - Polychlorinated and Polybrominated Terphenyls
- PCTP - Pentachlorothiophenol
- PFHXA and PFBS– Perfluorohexanoic Acid and Perfluorobutanesulfonic Acid
- PFOA and PFOS - Perfluorooctanoic Acid and Perfluorooctane Sulfonates
- Phenol, isopropylated phosphate (3:1) (PIP (3:1))
- Phthalates/ Phthalate esters
- PVC/PVDC (polyvinylchloride/polyvinylidene chloride)

- Radioactive Substances
- Silicon and mineral oils
- Sodium Chromate, Potassium Chromate, Ammonium Dichromate, Potassium Dichromate
- Styrene
- Sulfonamides
- TBBPA - Tetrabromobisphenol A
- THF – Tetrahydrofuran / 2-Methyltetrahydrofuran
- Thiuram mix
- Trichloroethylene / Boric acid
- Tris-Nonylphenol Phosphite
- Tetraboron disodium heptaoxide, hydrate
- VCM and PVC – Vinyl Chloride Monomer, and Polyvinyl Chloride
- Xylene
- 1,4-Dioxane
- 2,4,6-TTBP - 2,4,6-Tri-tert-butylphenol

This Product Regulatory Information Sheet is intended for informational purposes only.

It is the responsibility of the customer to check compliance of the final articles with the relevant legislative and applicable regulatory requirements including their restrictions.

The Producer, Hanwha Solutions makes no representations or warranties with respect to the accuracy or completeness of the information contained herein. Determination of the suitability and fitness of the specific product and/or material for any particular application is the sole responsibility of the purchaser.

Additional Information on the Health and Safety views of Our Product is listed in the MSDS of the Product.

Certified for Hanwha by :



KSM Park

General Manager – Quality Assurance Team in Yeosu Plant

Product Stewardship & Regulation affairs : Tel +82-61-688-1610

e-mail : h9614382@hanwha.com

This certificate shall continue in effect for 1 year from its effective date.

Producer : Hanwha Solutions/Chemical, Polyolefin Business Unit.

(Effective Date : 2 January, 2024)