

Regulatory Affairs Product Stewardship Information/Certification Data Sheet

SKYGREEN® PETG SERIES

Product	Grade
SKYGREEN® PETG SERIES	K2012, K2012-I, K2012-YJD, K2012-YS, K2012E, K2012/DW, KN100, KN200, DB7430, DB7430SP, K100up, SG7436, HN100 S2008, S2008T, S2008-YJD, S2008-SZ, SN200, Lumina, PN100, PN100-SZ, PN200, PN200-N2, PN200-N2(PG), PN200-N2 EL, PN300, PN303, PN400, PN400K, PN401, PN402, YN100, Proya-1, Proya-2, TD400, MP200 NOTE : Not all the above grades are available in all markets.

SK Chemicals' Copolyester resin, designated as SKYGREEN® PETG SERIES (Resin CAS# 25038-91-9), complies with the following regulations.

1. Chemical Inventories

- Europe

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)

The substances contained in SKYGREEN® PETG SERIES are registered in accordance with REACH legislation.

UK REACH (REACH after Brexit)

The Department for Environment, Food and Rural Affairs (DEFRA) confirmed on June 28, 2023, that the deadlines for UK REACH transitional registration have been officially extended by three years. This extension applies to the statutory instrument (or secondary legislation) and it depends on tonnage and toxicity. It came into effect on July 19, 2023. This aligns with DEFRA's previous response published on November 29, 2022, to the public consultation on the extension of the deadlines for registration under UK REACH. As a result, the confirmed deadlines for UK REACH registration have been extended to October 2026, October 2028, and October 2030.

We have successfully appointed a GB-based Only Representative (OR) and completed the Downstream User Import Notification (DUIN) submissions for our monomers TPA, EG and CHDM, ensuring continued compliance and uninterrupted trade in Great Britain.

- USA

TSCA (Toxic Substances Control Act) Inventory

SKYGREEN® PETG SERIES complies with TSCA polymer exemption regulation. And SKYGREEN® PETG SERIES listed on the TSCA inventory.(Flag XU;Y1)

- Canada

DSL (Domestic Substances List)

SKYGREEN® PETG SERIES is listed on the DSL.

- Korea

KECI/KECL (Korea Existing Chemicals Inventory/List)

SKYGREEN® PETG SERIES complies with K-REACH polymer exemption regulation(07-1908-022330). SKYGREEN® PETG SERIES is an existing chemical substance under K-REACH and listed in KECI/KECL(97-3-186).

- Japan

ENCS (Existing and New Chemical Substances)

SKYGREEN® PETG SERIES is listed on the Japanese ENCS(MITI no. 7-714).

- China

IECSC (Inventory of Existing Chemical Substances in China)

SKYGREEN® PETG SERIES is listed on the IECSC.

- **Taiwan**

TCSI (Taiwan Chemical Substance Inventory)

SKYGREEN® PETG SERIES is listed on TCSI and phase I registration was completed through Taiwan importers.

- **Australia**

AIIC(Australian Inventory of Industrial Chemicals)

SKYGREEN® PETG SERIES is listed on AIIC.

2. Substances of Very High Concern (SVHC) under Regulation (EC) No 1907/2006 concerning REACH

SKYGREEN® PETG SERIES complies with the latest version (updated 21 January, 2025) of [Candidate List of Substances of Very High Concern \(SVHC\)](#), which is published in accordance with Article 59(10) of the REACH Regulation by ECHA.

SKYGREEN® PETG SERIES does not contain any of the substances listed in the Candidate List in a concentration above 0.1 % weight by weight (w/w).

3. Food Contact

- **Europe**

Based on the information available and the testing outlined below, SKYGREEN® PETG SERIES is in compliance with the below regulations for use with all foods types at long term storage at room temperature or below, including when packaged under hot-fill conditions, and/or heating up to a temperature T where $70^{\circ}\text{C} \leq T \leq 100^{\circ}\text{C}$ for a maximum of $t = 120/2^{((T-70)/10)}$ minutes. [70° C for 120 min ~ 100 °C for 15 min]

SKYGREEN® PETG SERIES is in compliance with the relevant requirements of European Union food contact regulations below, under the conditions of use prescribed.

- **Regulation 1935/2004/EC (Framework Regulation)** of the European Parliament and Council on materials and articles intended to come into contact with food
- **Regulation 2023/2006/EC (GMP)** as amended on Good Manufacturing Practices for materials and articles intended to come into contact with food
- **Regulation 10/2011/EU (Plastics Regulation)** as amended on the plastic materials and articles intended to come into contact with food

[Note] No dual use additives with restrictions were used in the manufacture of this product.

- **USA**

SKYGREEN® PETG SERIES has an effective food contact notification (FCN) [No. 2066](#). This product is intended for use in contact with all foods under Conditions of Use C through G, and is not for use in contact with infant formula and human milk.

- **Japan**

On November 30, 2023, Japan's Ministry of Health, Labour and Welfare (MHLW) released the [final version of the reorganized positive list \(PL\)](#), set to take effect on June 1, 2025. This list is available in Japanese.

In line with earlier updates regarding the development of the PL, a transition period is set until May 31, 2025. During this phase, 'existing substances' will be allowed on the Japanese market. These include substances listed in the June 1, 2020, version of the PL (Tables 1 and 2) and substances previously used in food-contact 'synthetic resins' in Japan before June 1, 2020, even if they weren't explicitly approved in the current Tables.

Notably, all starting substances of SKYGREEN® PETG SERIES are included in the newly proposed draft of the Positive List. SKYGREEN® PETG SERIES is described as a 'polymer mainly composed of ester bonds'.

- **Switzerland**

SKYGREEN® PETG SERIES may safely be used to manufacture food contact articles for use according to the Swiss Ordinance 817.023.21(as amended) of the Swiss Federal Department of Home Affairs (FDHA) on Materials and Articles Intended to Come Into Contact with Food.

- **China**

Chinese National Health Commission (NHC) approves SKYGREEN® PETG SERIES as a new food contact resin which can be safely used in contact with foods containing not more than 25 % (by volume) aqueous alcohol, excluding carbonated beverages and beer. Conditions of hot fill not to exceed 82.2°C , and storage at temperatures not in excess of 48.9°C are allowed. Hot treatment should not be performed when foods are in containers.

SKYGREEN® PETG SERIES is now officially listed in the GB4806.7-2023, the updated 'National Food Safety Standard for Plastic Materials and Articles for Food Contact Use.'

- **Korea**
SKYGREEN® PETG SERIES complies with the requirements and specifications of Ministry of Food and Drug Safety (PET).
- **Latin America**
SKYGREEN® PETG SERIES meets the requirements of MERCOSUR food contact regulation. SKYGREEN® PETG SERIES is produced from monomers and additives listed in accordance with MERCOSUR's Positive List(GMC/RES. N°02/12 and GMC/RES. N°32/07).
- **NSF/ANSI Standard 51 Food Equipment Materials**
SKYGREEN® PETG SERIES is certified to NSF/ANSI Standard 51. A list of certified grades and detailed information can be found at : <http://info.nsf.org/Certified/Food/Listings.asp?Company=C0092244&Standard=051>

4. Medical Regulations

- **USP Class VI**
SKYGREEN® MP200 meets the requirements of USP Class VI. This resin has passed the USP <88> Biological Reactivity Test, *In Vivo* and USP <87> Biological Reactivity Test, *In Vitro*.

5. European Regulations

- **1907/2006 EU REACH Authorization List (Annex XIV)**
SKYGREEN® PETG SERIES does not contain any substances listed in Annex XIV (Authorisation List) of REACH Regulation EC No 1907/2006, including all amendments.
- **1907/2006 EU REACH Restricted Substances List (Annex XVII)**
SKYGREEN® PETG SERIES does not contain any substances listed in Annex XVII (Restricted Substances) of REACH Regulation EC No 1907/2006, including all amendments.
- **94/62/EC on packaging and packaging waste**
Heavy metals, specifically lead (Pb), cadmium (Cd), mercury (Hg) and hexavalent chromium (Cr(VI)), were not detected within the detection limit (<1.0 mg/kg). In fact, none of the above heavy metals are used in manufacturing or formulating SKYGREEN® PETG SERIES. Therefore, it can safely be concluded that SKYGREEN® PETG SERIES is in accordance with European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.
- **Annex II of 1169/2011/EU SUBSTANCES OR PRODUCTS CAUSING ALLERGIES OR INTOLERANCES**
SKYGREEN® PETG SERIES not contain substances or products causing allergies or intolerances defined in Annex II of EU Regulation 1169/2011.
- **EN 71-3: 2019+A1:2021 Safety of Toys (Migration of Certain Elements)**
All of the elements listed in EN 71-3: 2019+A1:2021 were not detected within the detection limit (<1.0 mg/kg). Also, they are not used to manufacture or formulate SKYGREEN® PETG SERIES. Therefore, it can safely be concluded that SKYGREEN® PETG SERIES is in accordance with EN 71-3: 2019+A1:2021 Safety of Toys (Migration of Certain Elements).
- **2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (including all amendments.)**
Lead (Pb), cadmium (Cd), mercury (Hg), chromium VI (Cr(VI)), polybrominated biphenyl (PBB), and polybrominated diphenyl ethers (PBDE) were not detected within the detection limit (<1.0 mg/kg). Also, they are not used to manufacture

or formulate SKYGREEN® PETG SERIES. Therefore, it can safely be concluded that SKYGREEN® PETG SERIES is in accordance with 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

- **ANNEX II, III, IV, V, and VI LIST OF SUBSTANCES in EC No 1223/2009 - Prohibited, Restricted, Permitted Colorants, Preservatives, and UV filters in Cosmetic Products**

None of the substances listed in Annex II, III, IV, V, and VI of EC No 1223/2009 are added or contained in the manufacturing process of SKYGREEN® PETG SERIES, ensuring it does not contain any prohibited, restricted substances, permitted colorants, preservatives or UV filters.

- **Regulation (EC) No 999/2001 of the European Parliament and of the Council : Prevention, control and eradication of transmissible spongiform encephalopathies (TSEs) in animals**

SK chemicals does not add the any substances of animal derived materials in manufacturing process of SKYGREEN® PETG SERIES.

- **Regulation (EC) No. 1005/2009 on Substances that Deplete the Ozone Layer; 40 CFR Part 82 Subpart E, ODS**

SKYGREEN® PETG SERIES does not contain and are not manufactured with, any ozone depleting chemicals in accordance with Appendix A and B of 40 CFR Part 82. (Class I & II controlled substances)

* Ozone depleting chemicals are those substances which deplete the ozone layer and are widely used in refrigerators, airconditioners, fire extinguishers, in dry cleaning, as solvents for cleaning, electronic equipment and as agricultural fumigants. Ozone depleting chemicals controlled by Montreal Protocol include:

- Chlorofluorocarbons (CFCs)
- Halon
- Carbon tetrachloride (CCl₄), Methyl chloroform (CH₃CCl₃)
- Hydrobromofluorocarbons (HBFCs)
- Hydrochlorofluorocarbons (HCFCs)
- Methyl bromide (CH₃Br)
- Bromochloromethane (CH₂BrCl)

- **Regulation (EU) No. 528/2012 on Biocidal Products (repealed and replaced Directive 98/8/EC)**

Any biocidal products are not intentionally employed in SKYGREEN® PETG SERIES.

- **Regulation (EU) 2019/1021 on persistent organic pollutants (POPs, including its amending Regulations)**

SKYGREEN® PETG SERIES does not contain any Persistent Organic Pollutants (POP) in annex I, II, III, IV of REGULATION (EU) 2019/1021 (updated 17 October, 2024).

- **Directive 2005/84/EC, Commission Decision 1999/815/EC (Phthalates), as amended; Consumer Product Safety Improvement Act of 2008**

SKYGREEN® PETG SERIES does not contain following phthalates in accordance with EU Phthalate Directives.

Phthalates	CAS Nos	EINECS Nos	Restrictions
bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	0.1 % by mass of the plasticized material in toys and childcare articles
dibutyl phthalate (DBP)	84-74-2	201-557-4	
benzyl butyl phthalate (BBP)	85-68-7	201-622-7	
di-"isononyl" phthalate (DINP)	28553-12-0 68515-48-0	249-079-5 271-090-9	0.1 % by mass of the plasticized material in toys and childcare articles which can be placed in the mouth by children
di-"isodecyl" phthalate (DIDP)	26761-40-0 68515-49-1	247-977-1 271-091-4	
dioctyl phthalate (DNOP)	117-84-0	204-214-7	

- **CMR Regulation 1272/2008/EC (CLP)**

SKYGREEN® PETG SERIES meets the requirements as outlined in the CLP Regulation (EC) No 1272/2008 for CMR category 1A, 1B, and 2 substances. It confirms the absence of any such substances that are intentionally added or known to be

present in concentrations at or above 10 ppm. Furthermore, it ensures that no such substances migrate at or above the threshold of 0.1 ppm in any relevant simulant.

- **Skin sensitizer Regulation 1272/2008/EC (CLP)**

SKYGREEN® PETG SERIES meets the requirements under CLP Regulation (EC) No 1272/2008 concerning skin sensitizers. It confirms the absence of skin sensitizers classified as Cat.1A, 1, and 1B, with none intentionally added or known to be present at concentrations exceeding 100 ppm for Cat.1A and 1000 ppm for Cat. 1 and 1B. Moreover, it ensures that migration levels of these substances do not exceed 0.1 ppm for Cat. 1A and 1 ppm for Cat 1 and 1B in any relevant simulant.

- **BPF Rule**

SKYGREEN® PETG SERIES is manufactured in accordance with Regulation (EC) No 2023/2006 on Good Manufacturing Practice (GMP) for materials and articles intended to come into contact with food. This regulation ensures that all stages of production are managed to prevent adverse changes to the food or risks to consumer health. Our quality systems at SK Chemicals are designed to consistently meet these regulatory requirements, ensuring compliance with standards for food contact materials.

- **EU Regulation 834/2007 regarding the prohibition of genetically modified organisms (GMOs) in organic products**

In accordance with EU Regulation 834/2007, which prohibits the use of genetically modified organisms (GMOs) in organic products, SK chemicals affirms that SKYGREEN® PETG SERIES neither contains nor is manufactured with GMO materials or their derivatives.

6. US Regulations

- **CONEG (Coalition of Northeastern Governors)**

Heavy metals and heavy metal compounds of lead (Pb), mercury (Hg), cadmium (Cd), and hexavalent chromium (Cr(VI)), as well as phthalates, are not intentionally employed in SKYGREEN® PETG SERIES. Incidental amounts, if present, are below 100 ppm, in accordance with the threshold limit set by CONEG requirements and The Toxics in Packaging Clearinghouse Model Legislation. Additionally, this product complies with the regulations prohibiting the intentional introduction of perfluoroalkyl and polyfluoroalkyl substances (PFAS), ensuring that no detectable PFAS are found in this product.

- **California Proposition 65**

SKYGREEN® PETG SERIES is in accordance with the latest version (announced January 3, 2025) of California Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986. SKYGREEN® PETG SERIES does not require a warning about chemicals known cancer causing or reproductive toxicity chemicals in California Proposition 65.

- **US Nuclear Regulatory Commission Title 10 CFR part 20**

Based on our current knowledge of the raw materials and manufacturing process of SKYGREEN® PETG SERIES, we have no reason to expect that this product contains any radioactive substances. (Relevant Regulation: Title 10 CFR part 20 of the US Nuclear Regulatory Commission Appendix C)

7. Others

- **Bisphenols**

SKYGREEN® PETG SERIES does not contain Bisphenols (A, AP, AF, B, BP, C, C 2, E, F, FL, G, M, S, P, PH, TMC, Z).

- **per- and poly-fluoroalkyl substances (PFAS)**

PFAS are a class of substances that persist in the environment indefinitely, because there is no natural process that eliminates them. These substances can be toxic and are potentially linked to a variety of human health concerns, including increases in cholesterol levels, immune suppression, and lower birthweights. Some studies associate higher exposures with some cancers, such as testicular and kidney cancers.

Based on our current knowledge of the raw materials and manufacturing process of SKYGREEN® PETG SERIES, we have no reason to expect that this product contains per- and poly-fluoroalkyl substances (PFAS).

- **Halogens**

SK chemicals does not add the following substances in manufacturing process of SKYGREEN® PETG SERIES. Therefore, this product is free of halogens (In the modern IUPAC nomenclature, these are known as group 17).

- Fluorine (F)
- Chlorine (Cl)
- Bromine (Br)
- Iodine (I)
- Astatine (At)
- Tennessine (Ts)

- **LVMH Packaging Blacklist V9**

SK Chemicals confirms that any of the substances listed in the LVMH Packaging Blacklist V9(updated 19 April, 2023) is not used in the manufacture or formulation of SKYGREEN® PETG SERIES.

- **Polycyclic aromatic hydrocarbons (PAHs)**

SK chemicals does not add the following substances in manufacturing process of SKYGREEN® PETG SERIES.

- 1,2-dihydro-acenaphthene (CAS# 83-32-9)
- 9H-Fluorene (CAS# 86-73-7)
- Acenaphthylene (CAS# 208-96-8)
- Anthracene (CAS# 120-12-7)
- Benz(a)anthracene (CAS# 56-55-3)
- Benzo(a)pyrene (CAS# 50-32-8)
- Benzo(b)fluoranthene (CAS# 205-99-2)
- Benzo(e)pyrene (CAS# 192-97-2)
- Benzo(ghi)perylene (CAS# 191-24-2)
- Benzo(j)fluoranthene (CAS# 205-82-3)
- Benzo(k)fluoranthene (CAS# 207-08-9)
- Chrysene (CAS# 218-01-9)
- Dibenzo(a,h)anthracene (CAS# 53-70-3)
- Fluoranthene (CAS# 206-44-0)
- Indeno(1,2,3-cd)pyrene (CAS# 193-39-5)
- Naphthalene (CAS# 91-20-3)
- Phenanthrene (CAS# 85-01-8)
- Pyrene (CAS# 129-00-0)

- **Latex content**

SKYGREEN® PETG SERIES does not contain natural rubber latex or dry natural rubber.

- **Transmissible Spongiform Encephalopathy (TSE)/ Bovine Spongiform Encephalopathy (BSE)**

SKYGREEN® PETG SERIES does not contain any substances (Substances of Animal Origin Regulation EC 999/2001, as amended; 21 CFR 189.5; 21 CFR 700.27) of animal derived materials.

- **Food Allergens**

SKYGREEN® PETG SERIES is not formulated to contain the major food allergens or essential proteins derived there from. (The major food allergens include eggs, fish, milk, peanuts, shellfish, soybeans, tree nuts, and wheat).

- **Butylated Hydroxytoluene (BHT) and Phthalates**

SK chemicals does not add the BHT and any Phthalates in manufacturing process of SKYGREEN® PETG SERIES.

- **Conflict Minerals Reporting Template (CMRT) version 6.4**

SKYGREEN® PETG SERIES does not intentionally employ any of the conflict minerals—tantalum, tin, gold, tungsten (known as 3TG)—as outlined in the Conflict Minerals Reporting Template (CMRT) version 6.4 developed by the Responsible Minerals Initiative.

- **Extended Mineral Reporting Template (EMRT) version 1.3**

SKYGREEN® PETG SERIES does not intentionally employ any of the conflict minerals(Cobalt and Mica) as outlined in the Extended Mineral Reporting Template (EMRT) version 1.3 developed by the Responsible Minerals Initiative.

- **Mineral oil saturated hydrocarbons(MOSH) and mineral oil aromatic hydrocarbons(MOAH)**

Based on our current knowledge of the raw materials and manufacturing process of SKYGREEN® PETG SERIES, we have no reason to expect that this product contains MOSH and MOAH.

- **Optical brighteners and fluorescent agents.**

SK Chemicals does not add optical brighteners, optical brightening agents (OBAs), fluorescent brightening agents (FBAs) and fluorescent whitening agents (FWAs) (such as 4,4-diamino-2,2-stilbenedisulfonic acid and 4,4'-bis(benzoxazolyl)-cis-stilbene and 2,5-bis(benzoxazol-2-yl)thiophene) in manufacturing process of SKYGREEN® PETG SERIES.

- **Dioxin.**

Based on our current knowledge of the raw materials and manufacturing process of SKYGREEN® PETG SERIES, we have no reason to expect that this product contains 1,4-Dioxin, polychlorinated dibenzodioxin(PCDD) and its isomers.

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. Thus, customers take the responsibility to determine that the use of our product is safe and lawful in their intended applications. Possibilities for changes not only in law and regulations but also in our products make it difficult for us to guarantee that the status of this product will remain unchanged. Due to this reason, we recommend that customers verify its status periodically.

For additional information, please contact your SK Chemicals sales representative or SK Chemicals marketing subsidiary.