

Regulatory Compliance Declaration

for Sunpor expandable polystyrene types

Product Name **SUNPOR EPS STD Grades**
Expandable polystyrene

Chemical Name $(C_8H_8)_n$, Expandable Polystyrene (containing pentane as expanding agent)
Synonyms EPS, Expandable Polystyrene, Expandable Poly(phenylethene)

Trade name SUNPOR EPS STD grades:

A 123 STD	POWERPOR®	SUNCOLOR® exquisit
A 223 STD	BRICKPOR®	SUNCOLOR® micro
A 243 STD	LIGHTPOR®	SUNCOLOR® protect
A 321 STD		SUNCOLOR® protect micro
A 321 x STD		
A 341 STD		
A 422 STD		
A 423 STD		

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Food-contact

Since 1 May 2011, the Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food applies to all plastic food contact materials and articles. This EU-Regulation is a specific measure within the meaning of Framework Regulation (EC) 1935/2004; among others, it replaces Plastic Directive 2002/72/EC. The regulatory approach for plastic materials and their specifications (restrictions and overall migration limits) has not changed.

Regulation (EC) 1935/2004, the so called Packaging Framework Regulation which covers all food packaging materials stipulates in Art 3 that they cannot:

- endanger human health,
- bring about unacceptable changes to the composition of the food
- bring about a deterioration of the organoleptic characteristics of the food.

Practically, the basic principles of the EUPFC legislation are that:

- Only admitted monomers and additives can be used; this positive list of admitted monomers and additives is regularly updated.
- Global Migration in standard food simulants must remain below the limit of 60 mg/kg food or 10 mg/dm² of article.
- Specific Migration Limits (SML), expressed in mg/kg food or mg/dm² of article, are applicable to some additives and monomers, ensuring that their accumulation in the food by migration is limited to a level low enough to not endanger the human health when the food is consumed.
- Furthermore, dual additives (i.e. that can be used in the food itself and in the plastic) must also be declared by the plastic producer.
- The testing must be done on the final article as used in FC application.

SUNPOR EPS STD grades fulfil the requirements of Commission Regulation (EU) 10/2011, amended by Commission Implementing Regulation (EU) 321/2011, amended and corrected by Commission Regulation (EU) No 1282/2011 and EU 1183/2012, Regulation EU 202/2014 and Regulation (EU) 2015/174, amended and corrected by Commission Regulation (EU) No 2016/1416, amended and corrected by Commission Regulation (EU) No 2017/752, corrected by Commission Regulation (EU) No 2018/79, amended and corrected by Commission Regulation (EU) No 2018/213, amended and corrected by Regulation (EU) 2020/1245.

This grades also meet the relevant requirements of Regulation (EC) 1935/2004 (27/10/2004) on materials and articles intended to come into contact with food, amendment by Regulation (EC) 596/2009 (18/06/2009) and Regulation (EC) 1895/2005 (18/11/2005).

Overall migration tests were carried out on this type of polymer according to EN 1186-3 and -14 respectively Commission Regulation (EU) 10/2011 (total immersion) under the conditions 10 % ethanol (storage: 10d/40°C), 3 % acetic acid (storage: 10d/40°C), 95 % ethanol (storage: 10d/40°C), iso octane (storage: 2d/20°C).

The Overall Migration was below 1 mg/dm² under these conditions. The Product is suitable for any contact with foods for long – term storage in deep freeze, freeze, and room temperature conditions and for temperatures that do not exceed 40°C for a time period longer than 10 days.

No monomers subject to restriction (Specific Migration Limit or Quantitative Maximum) are used. These grades contain zinc based additives subject to a Group Specific Migration Limit of 5 mg/kg (expressed as zinc). Modelling results indicate that when these grades are converted, the above SML(s) will not be exceeded. As the conversion process can affect migration, only the converter can guarantee to the food packer that above limits are not exceeded.

The pigments used in coloured grades are comply with Resolution AP (89) 1 (13/09/1989).

National regulations:

Austria:	Kunststoffverordnung Nr. 476/2003 und Änderungen 242/2005 und 452/2006
Belgium:	Koninklijk Besluit - Arrêté Royal 3/07/2005 and Arrêté Royal 5/7/2006
Czech Republic:	Výhlaska Ministerstva zdravotnictví c. 186/2003, c. 207/2006 and c. 551/2006
Denmark:	Fødevaredirektoratets Bekendtgørelse nr. 1102 af 09/11/2006
England:	Statutory Instruments 2006 No. 2687 and BPF-BIBRA (1995)
Finland:	KTM Asetukset 953/2002, 141/2005, 181/2005 ja 762/2006
France:	Decree N° 92-631 of 8 July 1992, amended by the Decree No 99-242 of 26 March 1999. Decree N° 2007-766 of 10 May 2007 amending partially the modified Decree N° 92-631, modified by the Decree N° 2008-1469 of 30 December 2008, repealed partially by the Decree N° 2009-1083 of 01 September 2009 and modified by the Decree N° 2011-385 of 11 April 2011. Order of 2 January 2003 and its modifications (29 March 2005, 09 August 2005, 19 October 2006, 25 April 2008, 19 November 2008, 03 September 2010 and 01 April 2011). Order of 2 April 2003 and its modification of 19 October 2004.
Germany:	Bedarfsgegenständeverordnung 23/12/1997 und Änderungen vom 21/12/2000, 07/04/2003, 13/07/2005 und 30/11/2006 sowie BfR Empfehlungen V. Polystyrol, das ausschließlich durch Polymerisation von Styrol gewonnen wird, Stand. 01/01/2010
Greece:	AXE decision n° 458/2003
Ireland:	Regulations 2005, Rule N°49
Italy:	Decreto Ministeriale 21/03/1973 and subsequent amendments including last update D.M. No. 174/2008
Netherlands:	Warenwet (2006) Hoofdstuk 1, Kunststoffen
Norway:	Sosial-og helsedepartementets forskrift of 21/12/1993, n° 1381
Portugal:	Decreto Lei N. 197/2007 of 15/05/2007
Spain:	Real Decreto 866/2008 of 23/05/08
Sweden:	Statens livsmedelsverks kungörelse LIVSFS 2003:2 och ändr. LIVSFS 2004:31, 2005:14, 2005:28, 2006:6, 2006:20
Switzerland:	Verordnung der EDI über Bedarfsgegenstände 23/11/2005, 3. Abschnitt Bedarfsgegenstände aus Kunststoff
USA:	US FDA Compliance (21 CFR 177.1640(a)1 and 21 CFR 178.3010 this resin may be safely used in articles used for packing. All adjuvants used in the manufacture of this resin are generally recognized as safe.

Whereas SUNPOR Kunststoff supplies to its customers the adequate information to allow them to fulfil their own responsibilities, the converters do have to check and confirm that the final article meets both the technical and regulatory requirements of the application.

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Autor: Product Stewardship / Hintermeier

Please note: This notice reflects our current knowledge.

The suitability for specific applications must be verified by the processor from a technical and legal point of view.

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Good Manufacturing Practice

Commission Regulation 2023/2006/EC establishes rules for the adoption of Good Manufacturing Practice for materials and articles coming into contact with food. All materials and articles covered by Regulation 1935/2004/EC also fall within the scope of 2023/2006/EC.

The Regulation requires that all business operators shall establish, implement and ensure adherence to an effective and documented quality assurance system.

SUNPOR Kunststoff is practising a self developed overall quality management systems based on the Global Responsible Care Charter. Since 2005 SUNPOR is a third party certified Responsible Care company. Our quality management system fulfils the following Good Management Practice criteria:

- Full traceability from the starting materials to the end product.
- Risk analysis in order to identify critical steps and to define the appropriate actions.
- Personnel information and training.
- Alignment of suppliers on Good Manufacturing Practice for food-contact
- Process and procedures auditing.

Dangerous Substances and Preparations

Council Directive 76/769/EEC relates to restrictions on the marketing and use of certain dangerous substances and preparations. Substances falling under the Limitations Directive were listed in the Annex I to that Directive which also specified the restrictions on marketing and use applying in each particular case.

This directive manages the safety risk imposed by certain dangerous chemicals either by banning or restricting their use. These banned or restricted chemicals are defined in a complete list contained in the Master Directive 76/769/EEC and its amendments.

We confirm that the substances in question are not used as monomers or additives for the production of SUNPOR EPS grades, which also means that they are not intentionally added to the process or incorporated in the product.

SUNPOR takes every possible measure during the manufacture of our products, to avoid any contamination of the stream of raw materials (monomers and additives) that could result in the presence of undesired substances in the finished product.

It is however scientifically impossible to guarantee the total absence of hundreds of particular substances in a product, and we cannot analyse them in that respect neither. We however do not perform any specific test to verify the absence of these substances in the final product and cannot guarantee that there is no trace amount of them, as impurity or otherwise.

In particular, the following substances are not used in the production of SUNPOR EPS grades:

- **Nonylphenol, Nonylphenol ethoxylate and cement** - Directive 2003/53/EC (26th amendment)
- **Polycyclic aromatic hydrocarbons - PAH** - Directive 2005/69/EC (27th amendment)
- **Substances classified as carcinogens, mutagens or substances toxic to reproduction (CMR)** - Directive 2003/36/EC (25th amendment), Directive 2003/34/EC (23rd amendment) and Directive 2001/41/EC (21st amendment)
- **Penta/octabromodiphenyl ether** - Directive 2003/11/EC (24th amendment)
- **Azocolorants** - Directive 2002/61/EC (19th amendment)
- **Short Chain Chlorinated Paraffins (SCCP)** - Directive 2002/45/EC (20th amendment)
- **Perfluorooctane sulfonates (PFOS)** - Directive 2006/122/EC (30th amendment)
- **Phthalates** - Directive 2005/84/EC (22th amendment)
- **Dimethylfumarate (DMF)** - Commission Decision 2009/251/EC

Bovine Spongiform Encephalopathy (BSE) and other Transmissible Spongiform Encephalopathy (TSE)

Since 1989, the European Commission in close co-operation with EU Member States has taken a series of measures to manage the risk of BSE and other TSEs in the European Union. There is now a large body of EU legislation in place to protect humans and animals from BSE and other TSEs.

The SUNPOR EPS grades contain derivatives of fatty acids as additives. We received from our own suppliers the guarantee that they are BSE free, because they are only produced from vegetable fats.

Genetically Modified Organism (GMO)

Genetically modified organisms (GMOs) are organisms, such as plants and animals, whose genetic characteristics are being modified artificially in order to give them a new property. Food and feed which contain or consist of such GMOs, or are produced from GMOs, are called genetically modified (GM) food or feed.

In order to ensure that the development of modern biotechnology, and more specifically of GMOs, takes place in complete safety, the European Union has established a legal framework regulating genetically modified (GM) food and feed in the EU. This framework pursues the global objective of ensuring a high level of protection of human life and health and welfare, environment and consumer interests, whilst ensuring that the internal market works effectively.

Among the used additives, only a few of them have the potential to be genetically modified. We have the promise of our suppliers that no genetically modified raw materials are used.

Nevertheless we would like to comment on the relevance of gene modification techniques to plastic materials. The most significant fact is that the additives possibly deriving from genetically modified organisms based materials are manufactured through multi-step conversion and/or purification processes, involving aggressive conditions like high temperature and pressure as well as action of chemically reactive substances. The final plastic materials themselves are produced under high temperature conditions and are further submitted during conversion processes to high temperature for a significant period of time.

On the basis of current scientific knowledge, it can be stated that no DNA and no proteins from a given organism (genetically modified or not) can resist to such a series of treatments. Therefore, their presence in our polymers and in plastic articles manufactured from them is unexpected.

In conclusion, we confirm that the SUNPOR EPS grades are safe to be manufactured, processed and used.

Packaging and Packaging Waste

European Parliament and Council Directive 94/62/EC on packaging and packaging waste aims to harmonise national measures in order to prevent or reduce the impact of packaging and packaging waste on the environment and to ensure the functioning of the Internal Market. It contains provisions on the prevention of packaging waste, on the re-use of packaging and on the recovery and recycling of packaging waste. It also limits the content of heavy metals (sum of concentration levels of lead, cadmium, mercury and hexavalent chromium) present in packaging to max 0.1% (total).

SUNPOR EPS grades meet the relevant requirements of Directive 94/62/EC.

REACH

REACH is a European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

EPS is considered as composition by REACH: polymer (long polymeric chains), blowing agent and additives. Polymers are exempt of registration if their monomers (at > 2% w/w) are registered and additives must all have been registered by their manufacturers / importers. There is thus formally no further registration obligation for EPS under REACH.

Exposure scenarios must be prepared when a substance is manufactured or imported in quantities of 10 tonnes per year and above and classified as dangerous or as PBT/vPvB.

An exposure scenario is a set of conditions that describe how a substance (as such, in a preparation or in an article) is manufactured or used during its lifecycle and how the manufacturer or importer or downstream user controls or recommends controlling exposure of humans and the environment.

An exposure scenario must include the appropriate risk management measures and operational conditions that, when properly implemented, ensure that the risks from the uses of the substance are adequately controlled. The identification of uses for an Exposure Assessment as part of the Chemical Safety Report (CSR) is required for dangerous preparations in accordance with Directive 1999/45/EC (Dangerous Preparations Directive), as well for persistent, bioaccumulative and toxic (PBT) and very persistent and very bioaccumulative (vPvB) substances.

REACH also sets the obligation to declare the presence of SVHC (Substances of very High Concern) if present at concentrations above 0.1% w/w.

Amendments to the REACH Legal Text:

- Council Regulation No 1354/2007
- European Parliament and Council Regulation No 1272/2008
- Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019
- Commission Regulation (EU) 2020/507 of 7 April 2020

Amendments of the REACH Annexes:

- Annex II: Commission Regulation No 453/2010
 - Annex IV: Commission Regulation No 987/2008
 - Annex V: Commission Regulation No 987/2008
 - Annex XI: Commission Regulation No 134/2009
 - Annex XVII: Commission Regulation No 552/2009
 - Annex XVII: Commission Regulation No 276/2010
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SUNPOR Kunststoff is aware of REACH and the fact that it entered into force on 1 June 2007. We are fully committed to meeting our legal obligations under REACH and are taking steps accordingly.

In general, REACH is a wide ranging Regulation and has a significant impact on all manufacturers, importers and downstream users of chemical substances in the European Union, requiring joint collaboration across their respective supply chains. There is a concern about the potential for some chemical substances to be withdrawn from the European market as a consequence of REACH - either due to regulatory action or commercial considerations - and the resulting impact on downstream users.

All Sunpor EPS grades are exempt from registration. However, there are other obligations imposed by REACH on our company. We have briefly summarised the principal obligations as we understand them today:

- to engage with our raw material suppliers in order to establish that they will register all substances which fall within the scope of the REACH registration process or inform us otherwise, in order to reformulate the respective grade/s or to source from other suppliers.
- to register styrene and additives imported from outside the EU that fall within the scope of REACH.
- to ensure that our downstream applications and uses are properly communicated up through our supply chain to the eventual raw material registrant/s.
- to develop "exposure scenarios" for our use of chemical substances (raw materials) at the EPS production stage, so that this can be captured in the Chemical Safety Reports by the raw material registrant/s.
- to update our Safety Data Sheets in line with the requirements of REACH.

⇒ Our additive suppliers have registered the raw materials they deliver to us.

⇒ We have registered styrene and the additives we import into Europe.

⇒ SUNPOR EPS grades do not contain SVHC (Substances of Very High Concern).

We wish to emphasise that our EPS is exempt from REACH registration, and therefore do not have specific registration numbers.

SVHC Product Declaration

The publication of the "Candidate List", according to Article 59(1) of EC Regulation 1907/2006 ("REACH"), triggers a number of obligations for the European market.

Article 31(1) REACH requires among others the supplier of a substance included in the "Candidate List" to provide the recipient with a safety data sheet.

Furthermore, Article 33 REACH requires the supplier of an article containing a substance included in the "Candidate List" in a concentration above 0.1 % (w/w) to provide the recipient in the EU with, as a minimum, the name of that substance.

To enable our customers to comply with this requirement, we check each inclusion of new substances against the "Candidate List", to ascertain whether our products contain such substances above the threshold mentioned. Should this be the case, a corresponding reference will be included in the relevant safety data sheets within four weeks at the latest.

Based on the information available to us from our raw material suppliers the current SUNPOR EPS grades do not contain as intentionally added raw materials any of the substances of very high concern (SVHC) above a limit of 0.1 % w/w according to the candidate list, article 59 (1, 10) European REACH regulation (EC) No. 1907/2006. To the best of our knowledge, none of these materials are generated during production. (Please note that SUNPOR EPS SE grades in the past contained HBCD, a substance of very high concern. Current SUNPOR EPS SE grades contain a flame retardant based on a brominated polymer with an enhanced HSE profile)

Please note that inclusion of a substance on the candidate list does not automatically lead to a substitution and subsequently to a ban. Listing only indicates that these substances might become subject to authorization.

As only candidate substances may become subject to authorization this SVHC product declaration implicates substances listed in Annex XIV.

So far, we are not aware that the articles supplied to you (product packaging) contain substances included in the Candidate List in concentrations above 0.1 % (w/w) each. Should our state of knowledge change, we shall inform you accordingly.

Candidate list, last updated: 19/01/2021

Current number of substances on the Candidate List = 211

Link to List on ECHA-Homepage: <http://echa.europa.eu/candidate-list-table>

For notice: Many substances are present in small quantities anywhere, they are ubiquitous. The observance of all these substances is not part of SUNPOR's ongoing production control. In view of the many factors that may affect processing and application of our products, these data do not relieve the processor from carrying out their own investigations and tests, neither do these data imply any guarantee for certain properties nor the suitability of the product for a specific purpose.

The information provided in this declaration is based on our current knowledge and experience, and on the state of the REACH regulation on the date of issue. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

Polycyclic Aromatic Hydrocarbons (PAH)

The Commission Regulation EU 1272/2013 of 6 December 2013 limits the PAH content in the accessible plastic or rubber parts of articles to concentrations less than 1 mg/kg and in toys and childcare articles to less than 0,5 mg/kg.

The substances mentioned below are not used as raw materials and no additives containing this substances are added in the production or Sunpor EPS.

The SUNPOR EPS grades do not contain the following PAHs in concentrations above 0,5 mg/kg:

- Benzo[a]pyrene
- Benzo[e]pyrene
- Benzo[a]anthracene
- Chrysen, Benzo[b]fluoranthene
- Benzo[j]fluoranthene
- Benzo[k]fluoranthene and
- Dibenzo[a,h]anthracene

RoHS

The new RoHS Directive, officially known as Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast), was published on July 1, 2011. The recast RoHS Directive 2011/65/EU has repealed Directive 2002/95/EC. The extension 2015/863 and the limit values valid from 22 July 2019 are also complied with.

The RoHS Directive restricts the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr⁶⁺), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ether (PBDE) in manufacturing of certain electrical and electronic equipment sold in the European Union.

SUNPOR EPS STD grades are free of the following heavy metals:

- cadmium
- lead
- mercury
- hexavalent chromium

and also of the following flame retardants:

- polybrominated biphenyl (PBB)
- pentabromodiphenyl ether (PBDE)
- decabromodiphenyl ether (decaBDE)
- tetrabromobisphenol A (TBBP-A)
- hexabromocyclododecane (HBCD)

which are all hazardous substances banned in the European Union in the electrical and electronic equipment manufacturing sector.

WEEE

The Waste Electrical and Electronic Equipment Directive (WEEE Directive) is the European Community directive 2002/96/EC on waste electrical and electronic equipment (WEEE) which setting collection, recycling and recovery targets for all types of electrical goods.

SUNPOR EPS grades meet the relevant requirements of Directive 2002/96/EC.

End of Life Vehicles

The EC Directive 2000/53/EC on End of Life Vehicles (ELV) prohibits the use of cadmium and curtails the use of lead, mercury and hexavalent chromium in vehicles put on the market.

SUNPOR EPS grades meet the relevant requirements of Directive 2000/53/EC.

BADGE, NODGE and BFDGE

In relation to the Directive 2002/16/EC, repealed by the Regulation 1895/2005/EC, BADGE [2,2-bis(4- hydroxyphenyl)propane bis(2,3-epoxypropyl) ether], BFDGE [bis(hydroxyphenyl)methane bis(2,3- epoxypropyl) ether], and NOGE [novolac glycidyl ether] are not used as additives or raw materials in the manufacture of SUNPOR EPS grades.

Biocidal Products

The Biocidal Products Directive 98/8/EC affects the placing of biocidal products on the market. The Directive aims to harmonise the European market for biocidal products and their active substances.

Biocidal Products are not used as additives or raw materials in the manufacture of SUNPOR EPS grades.

Ozone Layer Depleting Substances / Green House Gases

The EC Regulation 2037/2000/EC on substances that deplete the ozone layer affects the supply and use of all ozone depleting substances (ODS).

The Montreal Protocol on Substances that Deplete the Ozone Layer is an international treaty designed to protect the ozone layer by phasing out the production of a number of substances believed to be responsible for ozone depletion.

The EC Regulation 842/2006 of the European Parliament and the council restricts the use of certain fluorinated greenhouse gases.

Ozone Depleting Substances (ODS) as listed in Regulation 2037/2000/EC are not used as additives or raw materials in the manufacture of SUNPOR EPS grades.

Chlorofluorocarbons (CFC's) and substances related to ozone depleting substances (as defined by the MONTREAL PROTOCOL) are not used as additives or raw materials in the manufacture of SUNPOR EPS grades.

Pentane, which is used as expanding agent in EPS beads, is not classified as ODS.

Sunpor EPS does not contain controlled substances, or does not depend on controlled substances, according to the Regulation 1005/2009.

Persistent Organic Pollutants (POPs)

The recast of persistent organic pollutants (POPs) Regulation (EU) 2019/1021 is effective from 15 July 2019 and the previous POPs Regulation (EC) No 850/2004 will be repealed. This aims to give more clarity, transparency and align with other relevant Union legislative Acts.

Persistent Organic Pollutants (POPs) as listed in Regulation (EU) 2019/1021 are not used as additives or raw materials in the manufacture of SUNPOR EPS grades.

Dioxins, Furans and Polychlorinated Biphenyls (PCBs)

Dioxins, furans and polychlorinated biphenyls (PCBs) are among the primary concerns of the European public on account of their serious and multiple effects on the environment and human health. A number of recent accidents involving these chemical substances have also emphasised the dangers associated with them.

Dioxins, furans and polychlorinated biphenyls (PCBs) are not used as raw materials or additives in the manufacture of all SUNPOR EPS grades. These substances are also unlikely to be generated and released during the manufacture and processing of EPS.

Recovering, recycling and composting

SUNPOR EPS can be valorised for energy recovery due to its high calorific gain of around 39,6 MJ/Kg.

It is recyclable, mechanical recycling being one option depending of the requirements of the application and the intended article specifications.

Polystyrene is neither biodegradable nor compostable.

Nanomaterials

In February this year, following an extensive consultation process (Grenelles de l'environnement), the French Government introduced a national decree for mandatory reporting of nanomaterials (Décret n° 2012-232 du 17 février 2012), the first of its kind to be introduced in Europe. Its objectives are to gather available information on nanomaterials (properties, applications, toxicological and eco-toxicological data) and gain insight on their level of production, importation and distribution on the market, as well as to ensure a better traceability.

The decree defines "Substance à l'état nanoparticulaire" as engineered substances at the nanometric scale containing primary particles or aggregates or agglomerates. This definition also includes fullerenes, graphene flakes and carbon nanotubes, similarly to the definition of the term nanomaterial adopted by the European Commission in 2011 (2011/696/EU). The decree applies to nanomaterials on their own or included in a mixture or another material, and requires an annual declaration to be submitted to the French National Agency for Food Safety, Environment and Labor (ANSES) in May of each year, commencing from May 2013. This declaration is mandatory as soon as 100 g of nanoscale substance has been produced, distributed or imported over the previous year.

We confirm that nano materials are not used as additives for the production of SUNPOR EPS grades, which also means that they are not intentionally added to the process or incorporated in the product. Especially there are no coating additives having particle size in the range defining nanomaterials (D50 in number between 1 and 100 nm) present, because it is known that coating additives, even under normal or reasonably anticipated conditions of use of the EPS beads, can be released as such and are not incorporated in the polymer.

In general EPS converters in France do not have to prepare declarations in case of using EPS beads containing nanomaterials as additives. This is based on the following reasoning:

- if used, the nanomaterial had been added to improve EPS properties at polymerisation stage by the EPS producer. The nanomaterial is encapsulated in a polymer matrix
- the converter does not buy a nanomaterial, but a polymer containing additives -amongst which, possibly nanos- which is considered as a mixture in the sense of Reach
- under normal or reasonably anticipated conditions of use of the EPS beads, additives contained in the EPS beads -added at polymerisation stage- are not meant to be extracted or released
- converters produce articles from the EPS beads, not intermediate mixtures
- dust can possibly be found in EPS conversion plants as a result of converting EPS beads into articles. Such dust is polymer dust containing additives -amongst which possibly nanos- but is not additives dust, thus not nano dust in case a nano is used in the EPS bead. In particular, the dust size does not fall within the definition of a nanomaterial. The case of EPS dust generated during conversion is to be treated under the header "occupational health/dust", not under that of "nanomaterials"
- the articles produced by EPS converters and ultimately sold by these, under normal or reasonably anticipated conditions of use, are not meant to release additives contained in the EPS article -initially added at polymerisation stage to produce the EPS beads

Please note that a new version of the FAQ has been posted on the site of the Ministère de l'Ecologie, du Développement Durable et de l'Energie, addressing the specific case of polymers in Q 20.

http://www.developpement-durable.gouv.fr/IMG/pdf/FAQ_12mars2013_internet.pdf

This is valid for all additives, regardless of their particle size, as they are added at production stage by the EPS beads manufacturers.

TOXPROOF

TOXPROOF Mark is a safety mark issued by TÜV Rheinland, especially for testing the quantities of toxins in finished products as maternity and nursing pillows.

Basis for awarding of the safety mark is a sample test in which the criteria of the appropriate tests are carried out by a testing laboratory. If the test is successful, the user is required to sign a declaration that he affixes the mark only on products that meet the tested criteria. Regular, unannounced inspections by the TÜV and sampling from the trade guarantee that the criteria are constantly observed.

To label EPS products with TOXPROOF certificate, evaporations of styrene, pentane and other volatile substances may not be measurable any longer.

In addition, safety is substantiated with regard to the following criteria:

- Banned azo-dyes, allergizing and carcinogenic dyes
- Dimethylfumarate
- Formaldehyde
- Chlorinated Benzenes and Toluenes
- Organotin Compounds
- Heavy metals (Arsenic, Antimony, Lead, Cadmium, total Chromium (VI), Mercury, Nickel, Cobalt, Copper)
- Pesticides
- Chlorinated Phenols
- Colour Fastness
- Flame retardant
- Biocides
- Polycyclic aromatic hydrocarbons (PAH)
- Benzo[a]pyrene
- Phthalates
- Fastness to sweat & saliva

Expanded Polystyrene beads are the most commonly used filling material for maternity and nursing pillows. They are lightweight, hygienic and hypoallergenic. They dry quickly and there can be no mould.

SUNPOR EPS STD grades fulfil all criteria to pass the TOXPROOF tests, but we wish to emphasise that our EPS beads contain pentane as expanding agent and residual styrene, which have to be removed by storage or other eligible treatments.

Whereas SUNPOR Kunststoff supplies to its customers the adequate information to allow them to fulfil their own responsibilities, the converters do have to check and confirm that the final article meets requirements of the application.

Toxic Substances Control Act (TSCA)

Chemical substances imported into the United States must be accompanied by a certification form indicating that the shipment is in compliance with the EPA's Toxic Substances Control Act. The TSCA Inventory can be found at: <https://www.epa.gov/tsc-inventory>

Sunpor EPS grades comply with all applicable rules or orders under TSCA and all ingredients are listed on the TSCA inventory.

Persistent, Bioaccumulative, and Toxic (PBT) Chemicals under TSCA Section 6(h)

As required under the Toxic Substances Control Act (TSCA), as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act, EPA issued five final rules on January 6, 2021 to reduce exposures to certain chemicals that are persistent, bioaccumulative and toxic (PBT). These chemicals build up in the environment over time and can therefore have potential risks.

The substances mentioned below are not used as raw materials and no additives containing this substances are added in the production or Sunpor EPS.

The SUNPOR EPS grades do not contain the following substances:

- decabromodiphenyl ether (DecaBDE)
- phenol, isopropylated phosphate (3:1) (PIP (3:1))
- 2,4,6-Tris(tert-butyl)phenol (2,4,6-TTBP)
- hexachlorobutadiene (HCBD)
- pentachlorothiophenol (PCTP)

Conflict Minerals

Conflict Mineral refers to minerals listed in the U.S. „Dodd-Frank Wall Street Reform and Consumer Protection Act“: Sec. 1502. Conflict Minerals; see US SEC's implementing regulation at 17 CFR § 240 and § 249b (promulgated at 77 Fed Reg 56362; <http://www.gpo.gov/fdsys/pkg/FR-2012-09-12/pdf/2012-21153.pdf>): Specifically Item 1.01, Conflict Minerals Disclosure and Report, paragraph (d)(3) (77 Fed Reg 56364):

(i) Columbite-tantalite (coltan), cassiterite, gold, wolframite, or their derivatives, which are limited to tantalum, tin, and tungsten; or

(ii) any other mineral or its derivatives determined by the U.S. Secretary of State to be financing conflict in the Democratic Republic of the Congo (DRC) or an adjoining country (Angola, Burundi, Central African Republic, Republic of the Congo, Rwanda, Sudan, Tanzania, Uganda, and Zambia).

DRC Conflict Free means “that a product does not contain conflict minerals necessary to the functionality or production of that product that directly or indirectly finance or benefit armed groups, as defined in paragraph (d)(2) of this item, in the Democratic Republic of the Congo or an adjoining country. Conflict minerals that a registrant obtains from recycled or scrap sources, as defined in paragraph (d)(6) of this item, are considered DRC conflict free.” (Item 1.01, Conflict Minerals Disclosure and Report, paragraph (d)(4) (77 Fed. Reg. 56364)).

SUNPOR EPS grades are “DRC Conflict Free” according to U.S. “Dodd-Frank Wall Street Reform and Consumer Protection Act”: Sec. 1502 (necessary conflict minerals originated in the Democratic Republic of the Congo or an adjoining country) and we have no reason to believe that Conflict Minerals are used in the production of our raw materials.

California Proposition 65

California's Safe Drinking Water and Toxic Enforcement Act of 1986, commonly known as Proposition 65 (Prop65), establishes a list of chemicals which the state of California's risk assessment process has determined to present a risk of cancer, birth defects or other reproductive harm. The Proposition 65 chemical list can be found at: <https://oehha.ca.gov/proposition-65/proposition-65-list>

Items produced with Sunpor EPS do not contain chemicals at concentrations that would require a California Prop 65 warning label in accordance with this Act (inclusion date January 3, 2020 and earlier)

Halogen Free

IPC and IEC Definition:

IEC 61249-2-21 defines halogen-free as,

- *Maximum chloride = 900 ppm*
- *Maximum bromide = 900 ppm*
- *Total halogens content is less than 1500 ppm*

JPCA:

JPCA defines halogen-free as,

- *• Maximum chloride = 900 ppm*
- *• Maximum bromide = 900 ppm*

Samsung's Specification:

Samsung defines halogen-free as,

- *• Maximum chloride = 900 ppm*
- *• Maximum bromide = 900 ppm*
- *• Maximum Antimony = 900 ppm*

SUNPOR EPS STD grades meet the above criteria.

Toys

In the European directive 2009/48/EC on the safety of toys, the following substances are listed:

- | | | |
|------------|----------------|-------------------------|
| • Aluminum | • Chromium(VI) | • Selenium |
| • Antimony | • Cobalt | • Strontium |
| • Arsenic | • Copper | • Tin |
| • Barium | • Lead | • Organic tin compounds |
| • Boron | • Manganese | • Zinc |
| • Cadmium | • Mercury | • Chromium(III) |
| • Nickel | | |

The standard DIN EN 71-3:2014-12 (Safety of toys- Part 3: Migration of certain elements) defines the requirements on toy material and toy parts as well as the test methods for the migration of the above-mentioned elements.

The SUNPOR EPS STD grades fulfil the requirements on migration of the above-mentioned substances.
It is suitable for the manufacture of toys and parts of toys.

Summary: Absence of substances and chemicals

None of the following substances are used as additives or raw materials in the manufacture of SUNPOR EPS STD grades:

- Allergens (as defined in Directive 2000/13/EC, as amended)
- Aromatic amines and colorants
- Azodicarbonamide or semi-carbazide compounds
- Azo-dyes, banned
- Asbestos
- Benzo[a]pyrene
- Brominated flame retardants
- Chlorinated flame retardants
- Biozides
- Bisphenol-A and Bisphenol-F
- Chlorinated Benzenes and Toluenes
- Chlorinated phenols
- Dimethylfumarate
- Di(ethylhexyl) adipate
- Dioxins
- Endocrine Disruptors listed in Japanese authority list "Strategic Programs on Environmental
- Endocrine Disruptors '98 (SPEED '98) - Table 3: Chemicals Suspected of Having Endocrine Disrupting Effects"
- Epoxidised Soya Bean Oil (ESBO)
- Formaldehyde (formol)
- Furans
- Heavy metals (Arsenic, Antimony, Lead, Cadmium, total Chromium (VI), Mercury, Nickel, Cobalt, Copper)
- Isopropyltioxanthone (ITX)
- Latexes
- LCAPs - Long Chain Alkylphenols (propylphenol, butylphenol, amylphenol, heptylphenol, octylphenol, nonylphenol, dodecylphenol and related)
- Nanoparticles
- Nonylphenol and its derivatives
- Perfluorinated tenside (PFT), Perfluorooctanoic acid (PFOA) & Perfluorooctane sulfonate (PFOS) listed in Directive 2006/122/EC
- Pesticides
- Phthalates
- Poly(aromatic hydrocarbons) according to US Environmental Protection Agency Method 610 (EPA 610)
- Polycyclic Aromatic Hydrocarbons (PAH)
- Polychlorinated Biphenyls (PCBs)
- Recycled products according to Regulation 282/2008/EC
- SCAPs - Short chained alkyl phenols (phenol, cresol, dimethylphenol, ethylphenol, trimethylphenol, ethylmethylphenol, n-propylphenol, iso-propylphenol)
- Tert-butyl-4-hydroxyanisole (BHA) and 2,6-di-tert-butyl-p-cresol (BHT)
- Thiuram mix
- Titanium Acetyl Acetone (TAA)
- Toluol-2,4-diisocyanat (TDI)
- Tributyl-tin (TBT), dibutyl-tin (DBT), monobutyl-tin (MBT) or any other organo-tin compounds
- Vinyl chloride monomer and its polymers or copolymers
- Hydrochlorofluorocarbons (HCFC)
- Chlorofluorocarbons (CFC)
- Tris(2-chlorethyl)phosphat (TCEP)
- Chlorinated Paraffins (CP, SCCP, MCCP, LCCP)

Substances listed in:

- GADSL, "Global Automotive Declarable Substances List" 2008, version 1.0
- IKEA Specification, IOS-MAT-0010, 2007-05-31, version AA-10911-8