

Refining & Chemicals

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Letter: JT/SLI/18L00408

Feluy, 08/05/2018

PRODUCT STEWARDSHIP CERTIFICATE

ALL UNCOLORED POLYETHYLENE EVA COPOLYMERS, LDPE, LLDPE, MDPE, HDPE, LUMICENE, ACESO® & SUPERTOUGH PRODUCTS (manufactured in Europe and/or Qatar)

A. ABSENCE OF SUBSTANCES.

We hereby confirm that we do not intentionally use the following substances as additive* in the manufacturing of the above-mentioned Products

1	ALLERGEN SUBSTANCES as listed in Annex II of Regulation (EU) 1169/2011, replacing Directive 2007/68/EC	
2	ANTHRAQUINONE	CAS No 84-65-1
3	ANTIMONY TRIOXIDE	CAS No 1309-64-4
4	AROMATIC AMINES as listed in Regulation 1907/2006/EC Annex XVII Appendix 8	
5	ASBESTOS as listed in Regulation 1907/2006/EC Annex XVII	
6	AZOCOLORANTS as listed in Regulation 1907/2006 Annex XVII Appendixes 8 and 9	
7	BENZENE	CAS No 71-43-2
8	BENZOPHENONE DERIVATIVES	We mean the following substances by benzophenone derivatives : Benzophenone (CAS No 119-61-9), 2-hydroxybenzophenone (CAS No 117-99-7), 3-hydroxybenzophenone (CAS No 13020-57-0), 4-hydroxybenzophenone (CAS No 1137-42-4), 4-methylbenzophenone (CAS No 134-84-9),
9	BIOCIDAL PRODUCTS as defined in Article 3(1)(a) of the Regulation (EU) No 528/2012	
10	BISPHENOL A, BISPHENOL F and BISPHENOL S	CAS No 80-05-7, CAS No 620-92-8 and CAS No 80-09-1
11	BHA (ter-Butyl-4-hydroxyanisole)	CAS No 25013-16-5
12	BHT (2,6-di-ter-butyl-p-cresol)	CAS No 128-37-0

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13	CHLORINATED ALIPHATIC COMPOUNDS,	We mean the following substances by chlorinated aliphatic compounds : tetrachloromethane (CAS No 56-23-5), 1,1,2,2-tetrachloroethane (CAS No 79-34-5), 1,1,1,2-tetrachloroethane (CAS No 630-20-6), pentachloroethane (CAS No 76-01-7), trichloromethane (chloroform; CAS No 67-66-3), 1,1,2-trichloroethane (CAS No 79-00-5), 1,1-dichloroethylene (CAS No 75-35-4), 1,1,1-trichloroethane (CAS No 71-55-6).
14	CHLOROFLUOROCARBONS (CFC), HYDROGENATED CHLOROFLUOROCARBONS (HCFC) AND HALONES	
15	CMR SUBSTANCES as listed in Regulation 1272/2008/EC Annex VI	
16	CONFLICT MINERALS (Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Act)	We mean the following substances by conflict minerals: cassiterite, columbite-tantalite, wolframite, tin, tantalum, tungsten and gold
17	COSMETIC prohibited ingredients as listed in Annex II of the REGULATION (EC) 1223/2009 on COSMETIC PRODUCTS	
18	DIMETHYLFUMARATE Directive 2009/251/EC	CAS No 624-49-7
19	DIOXINS AND DIFURANS	
20	ENDOCRINE DISRUPTORS category I and II mentioned in Annex 13 of the final report of BKH STUDY 2000	
21	EPOXIDIZED SOYA BEAN OIL (ESBO)	CAS No 8013-07-8
22	EPOXY DERIVATIVES Regulation 1895/2005/EC	2,2-bis (4-hydroxyphenyl) propane bis (2,3-epoxypropyl) ether ('BADGE'), bis(hydroxyphenyl) methane bis (2,3-epoxypropyl) ethers ('BFDGE') and novolac glycidyl ethers ('NOGE')
23	ETHANOL	CAS No 64-17-5
24	FLAME RETARDANTS	This include Hexabromocyclododecane (HBCD)
25	FORMALDEHYDE	CAS No 50-00-0
26	HALOGENS	We mean the following substances by Halogens: Fluorine (CAS No 7782-41-4), Chlorine (CAS No 7782-50-5), Bromine (CAS No 7726-95-6), Iodine (CAS No 7553-56-2)
27	HEAVY METALS Directive 94/62/EC and Directive 2004/12/EC	The overall concentration of cadmium, mercury, lead and chromium is lower than 100 ppm (w/w).
28	ISOPROPYLTHIOXANTHONE (ITX)	CAS No 5495-84-1 and CAS No 83846-86-0
29	LATEX	We mean the following by latex: "a white, tacky, aqueous suspension of a hydrocarbon polymer occurring naturally in some species of trees, shrubs, or plants, or made synthetically".
30	MELAMINE and CYANURIC ACID	CAS No 108-78-1 CAS No 108-80-5
31	METALS as listed beside	Nickel, Barium, Cobalt, Arsenic

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32	MOSH (Mineral Oil Saturated Hydrocarbons), MOAH (Mineral Oil Aromatic Hydrocarbons), & Mineral Oil	However, we inform you that some trace amount of Mineral Oil can be present in some of here above mentioned products as a manufacturing process residue. This Mineral Oil is included in the Union List of the authorized substances for the manufacturing of plastic materials intended to come into contact with food
33	N_METHYLPYRROLIDONE (NMP)	CAS No 872-50-4
34	NONYLPHENOL AND NONYLPHENOLETHOXYLATES as listed in Regulation 1907/2006/EC Annex XVII	
35	ORGANOTIN COMPOUNDS Commission Decision 2009/425/EC	We mean the following substances by organotin compounds: Monobutyltin Compounds (MBT), Dibutyltin Compounds (DBT), Dioctyl Tin Compounds (DOT), Tributyltin Compounds (TBT), Triphenyltin Compounds (TPT) and Tributyltin Oxide (TBTO)
36	OZONE-DEPLETING SUBSTANCES - Regulation 1005/2009/EC - The Montreal Protocol on Substances that deplete the Ozone Layer, as last adjusted and/or amended in Montreal 19-2007 (UNEP- United Nation Environment Program) - The United States (Clean Air Act, as amended in 1990, title VI, section 602 (a), class I and II.	CFCs, Halons, Other fully halogenated CFCs, Carbon tetrachloride, 1,1,1-Trichloroethane (Methyl chloroform), Hydrochlorofluorocarbons (HCFC), Hydrobromofluorocarbons (HBFC), Methyl bromide, Bromochloromethane.
37	PARABENS as listed in Annex II and V of the Cosmetic Regulation 1223/2009/EC	
38	PENTACHLOROPHENOL and its salts and esters as listed in Regulation 1907/2006/EC Annex XVII	
39	PERFLUOROOCCTANE SULFONATE (PFOS) AND PERFLUOROOCCTANOIC ACID (PFOA)	
40	PESTICIDES, HERBICIDES as defined in Article 2 of the REGULATION (EC) No 1107/2009	
41	PHTHALATES	
42	POLYBROMOBIPHENYLS and POLYBROMODIPHENYLEETHERS - Regulation 1907/2006/EC Annex XVII - Directive 2011/65/EU	This includes penta-, octa-, decabromobiphenylethers.
43	POLYCHLORINATED BIPHENYLS (PCB)	

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44	POLYCHLORINATED NAPHTHALENES (PCN)	
45	POLYCHLORINATED TERPHENYLS (PCT) Regulation 1907/2006/EC Annex XVII	
46	POLYCYCLIC AROMATIC HYDROCARBONS (PAH) as listed in Regulation 1907/2006/EC Annex XVII (1272/2013/EC)	
47	POLYVINYLCHLORIDE (PVC), VINYLCHLORIDE MONOMER, POLYVINYLIDENE CHLORIDE (PVDC) VINYLIDENE CHLORIDE MONOMER	
48	POP - Persistent Organic Pollutants As listed in Annex I Part A & B of the "POP" Regulation 850/2004/EC (up to amendment 519/2012/EC)	
49	PROPOSITION 65, December 29, 2017	Chemicals listed in the Proposition 65, California Safe Drinking Water and Toxic Enforcement Act of 1986, dated December 29, 2017 (chemicals list that you can find at the following web address : http://www.oehha.org/prop65/prop65_list/Newlist.html). We can hereby confirm that we do not use the chemicals mentioned in this list as additive*
50	RADIOACTIVE SUBSTANCES as defined in Directive 96/29/EURATOM	Laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation.
51	RECYCLED MATERIALS as defined in Commission Regulation 282/2008/EC	
52	SEMICARBAZIDE and AZODICARBONAMIDE as defined in Directive 2004/1/EC	
53	SHORT CHAINED CHLORINATED PARAFFINS	Short-Chain Chlorinated Paraffins (SCCPs) include all individual chemicals or mixtures that contain: C _x H _(2x-y+2) Cl _y . Where x = 10-13; y = 3-12; and the average chlorine content ranges from approximately 40 to 70 percent with the limiting molecular formulas set at C ₁₀ H ₁₉ Cl ₃ and C ₁₃ H ₁₆ Cl ₁₂
54	SILICONE	CASNo 63148-53-8, 63394-02-5, 90337-93-2, 63148-62-9
55	STYRENE	CAS No 100-42-5
56	TITANIUM ACETYL ACETONATE (TAA)	CAS No 77927-72-9
57	TRICLOSAN (2,4,4'-Trichloro-2'-hydroxydiphenyl Ether) Decision 2010/169/EU	CAS No 3380-34-5
58	TRIS(NONYLPHENYL) PHOSPHITE (TNPP)	CAS No 26523-78-4

* Additive as defined in Regulation (EU) 10/2011

Issued by an electronic system

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However, since we do not systematically perform specific test to verify the potential presence of these substances in the above-mentioned Products, we cannot guarantee that there is no trace amount of these substances, as impurity or otherwise, in the above-mentioned Products. Moreover, it cannot be excluded that in specific conditions of processing or incineration certain of the above-mentioned substances might be generated as mentioned in the relevant safety data sheet.

B. COMPLIANCE WITH REGULATIONS

CONEG (Coalition of the North-eastern Governors (CONEG, USA) the above-mentioned Products meet the requirements of less than 100ppm overall concentration of cadmium, mercury, lead and chromium

DECRET 2007-1467 (Article 4) and ENVIRONMENTAL CODE (book V-title IV-chapter III-section V)-dated on 10 November 2008

We inform you that the "Décret" 98-638 is repealed by article 4 of the French "Décret" 2007-1467 (dated 12 October 2007). We hereby certify that the above-mentioned Products meet the requirements of the article R543-44 item 2b and article R543-45 of Environmental Code (book V) imposing to take into account environmental requirements in the conception and in the manufacturing of packaging material as far as the following articles are concerned:

Article R 543-44 - item 2 (b):

- the above mentioned Products are intended for the manufacture of packaging materials;
- the above-mentioned Products are recyclable by melting and pelletizing;
- the above-mentioned Products have a heat of combustion sufficient to enable to optimize energy recovery (*).

Article R 543-45:

The total of the concentrations of lead + cadmium + mercury + hexavalent chromium does not exceed 100 ppm.

We kindly remind you that the above-mentioned articles of the Code concern the packaging material as end product, for which we cannot provide any guarantee.

(*) The control of the combustion conditions and the technical measures related thereto cannot be controlled by the manufacturer of the above-mentioned Products and thus do not fall within his responsibility."

Directive 76/769/EC and Reach Annex XVII

Directive 76/769/EC relating to restrictions on the marketing and use of certain dangerous substances and preparations, established in its Annex I restrictions for certain dangerous substances and preparations. Regulation 1907/2006/EC (Reach Regulation) repealed and replaced Directive 76/769/EC from 1 June 2009 onwards. Annex XVII, published as Regulation 552/2009/EC amending Regulation 1907/2006/EC, replaces Annex I to Directive 76/769/EC. We herewith confirm that the above-mentioned Products comply with Regulation 552/2009/EC.

END OF LIFE VEHICLES Directive: We hereby confirm that the above-mentioned Products comply with the Directive 2000/53/EC on end of life of vehicles with respect to the heavy metals content limit defined in the notes of the Decision 2002/525/EC because the overall concentration of lead, chromium and mercury is lower than 0.1% by weight, and the concentration of cadmium is lower than 0.01% by weight.

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GENETICALLY MODIFIED ORGANISMS: We hereby confirm that we received confirmation of our suppliers of additives* used in the above mentioned products mentioning the absence of genetically modified organisms (GMO).

HALAL/KOSHER: We inform you that the above-mentioned products have not received Halal/Kosher certification. However, we can hereby confirm that we do not use, Ethanol (CAS No 64-17-5) nor substances which are of animal origin, as additive* in the here above mentioned products.

Packaging Waste Directive: We hereby confirm that the above-mentioned Products comply with Directive 94/62/EC and Directive 2004/12/EC on Packaging Waste with respect to the heavy metals content limit because the overall concentration of cadmium, mercury, lead and chromium is lower than 100 ppm (w/w) to be checked for other requirements.

RoHS and WEEE: We hereby inform you that Directive 2002/95/EC and Directive 2011/65/EU (up to amendment 2015/863/EC, on the Restriction of the use of certain Hazardous Substances: RoHS) does not cover the above-mentioned Products as "raw materials" but it only applies to the "electrical and electronic equipment" as finished products defined in the Annex IA under categories 1,2,3,4,5,6,7 and 10 of the European Directive 2002/96/EC (on Waste Electrical and Electronic Equipment: WEEE). Nevertheless, we hereby confirm that neither polybromo biphenyls (PBB), polybromo diphenylethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), nor Diisobutyl phthalate (DIBP) are intentionally used in the manufacturing of the above-mentioned product(s) in a threshold level higher than 0.1% (w/w). Moreover, a certificate that includes a heavy metals statement (including lead, cadmium, mercury and chromium) is included herein.

SAFETY DATA SHEETS (Regulation 1907/2006/EC): We recommend before using the above-mentioned Products to carefully read the Safety Data Sheets which can be downloaded from the website: <http://www.polymers.total.com>. Our customers receive automatically a Safety Data Sheet after their first order and when they make a new order after a period that is longer than 12 months. They will also receive automatically a Safety Data Sheet when modifications have been made.

TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHY (TSE): We hereby confirm that we received confirmation of our suppliers of additives* used in the above mentioned products mentioning the absence of substances of animal origin. Based on this information, we are confident that the above mentioned products are free of any Specific Risk Materials (SRM).

VOLATILE ORGANIC COMPOUNDS (VOC): We hereby inform you that a representative grade of the here above-mentioned product has been analyzed by "Automated Thermal Desorption Gas Chromatography – internal method" for VOC and our results were lower than the threshold concentration pointed out (3% w/w) in Swiss Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) of 12 November 1997 (Status as of March 1st, 2013).

* Additive as defined in Regulation (EU) 10/201

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C. NORMS AND STANDARDS

We can hereby confirm that we do not use as additive* any substances listed in these norms and standards above the limit values. The here above mentioned products are plastics and we therefore made reference to the respective parts of these norms and standards. Furthermore, we inform you that we do not test each grade we sell to check the potential presence of trace amounts of each chemicals hereafter listed which could be present in the here above mentioned products as impurities or otherwise.

1. IKEA IOS-MAT-0010 (version **AA-10911-10**, dated **2011-05-13**), **IKEA IOS-MAT-0054** (version AA-92520-9, dated **2013-06-07**), **IKEA IOS-PRG-0021** (version AA-31847-7, dated **2011-10-14**).

2. BOSCH NORM N 2580-1 (P & D substances as listed on 2016-07-20)

3. GADSL - GLOBAL AUTOMOTIVE DECLARABLE SUBSTANCE List – 2018
(VDA-LIST 232-101 (dated 2003) has been officially replaced by the globally GADSL, Renault and General

Motor manufacturers recently joined the IMDS/GADSL community).

4. SONY TECHNICAL STANDARDS (SS-00259, 14th Edition 2015)

* Additive as defined in Regulation (EU) 10/2011

Our certificate does not cover:

- any modification of The Product by any addition of any other product to it,
- any prejudicial modification of The Product resulting from a processing of The Product,
- an inadequate use and/or storage of The Product and of the finished articles.

The present certificate is based on the status of the legislation at the date written above and is valid until **end of December 2019**. It can be renewed upon request.

We are at your disposal for any further information you may need and remain,

Yours faithfully,
Total Research & Technology Feluy

J. TUTI
Regulatory Affairs

F. WYLIN
Regulatory Affairs, Manager