EU Declaration of Conformity

HYDROSTOP ELECTRONIC
Szamarzewskiego 78/82
60-569 Poznań POLAND

declare under our sole responsibility that following product

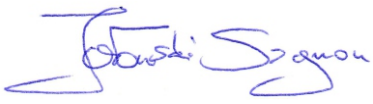
Hydrostopper H001ds
Automatic cut-off valve

is in conformity with the

Electromagnetic Compatibility Directive (EMC) 2014/30/EU
Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU
Delagated Directive 2015/863 amending Annex II to Directive 2011/65/EU

and the following harmonised standards and technical specifications have been applied:

EMC: EN 55032:2015
EN 61000-4-2:2009
EN 61000-4-3:2006 + A1:2008 + A2:2010

Place	Signature	Date
Poznań, POLAND		**22/10/2019**

Szymon Jałowski
Homologation Manager

EU Declaration of Conformity

HYDROSTOP ELECTRONIC
Szamarzewskiego 78/82
60-569 Poznań POLAND

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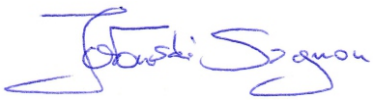
Place	Signature	Date
Poznań, POLAND		**22/10/2019**

Szymon Jałowski
Homologation Manager

HYDROSTOP ELECTRONIC
SZYMON JAŁOWSKI

ul. Szamarzewskiego 78/82
60-569 Poznań
NIP/VAT ID: PL 7811145612

info@hydro-stopper.com
www.hydro-stopper.com

1 March 2023

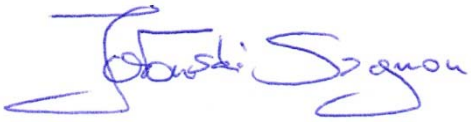
Dear Customer,

Subject: REACH for Hydrostopper

We would like to inform that all of REACH relevant substances contained in Hydrostopper have been registered in accordance with the REACH Registration requirements.
Substances are only moulded during production process.
We attached declaration of compliance certificates of substances used in Hydrostopper for:

- Zytel 70G30HSLRBK099 form DuPont
- LDPE 780E from DOW
- LDPE 410E from DOW
- SYNTHOS HI552M from INEOS Styrolution Group GmbH
- EVA2518 from Sahara International

Yours faithfully



Szymon Jałowski

INEOS Styrolution Group GmbH

Mainzer Landstraße 50
60325 Frankfurt am Main
Germany

ineos-styrolution.com
INSTY.emea@ineos.com

REACh Declaration

Version 1.0
Date: 01 January 2021

Product: Styrolution® PS (GPPS, HIPS)

Dear Customer,

This letter is in response to your request regarding the above product line.

The above mentioned product line is compliant with the Regulation EC No. 1907/2006 (REACh) concerning registration obligations.

The vast majority of the components is supplied by European suppliers and therefore has been registered by our suppliers or further up the supply chain.

The components we manufacture or import ourselves requiring registrations (deadlines: 1st December 2010 / 1st June 2013 / 31st May 2018) have been registered by our own or are registered and thus covered by appointed EU Only Representatives (OR) by our non-EU raw material supplier.

INEOS Styrolution will continue its registration obligations and take care that our raw material suppliers will respect their registration obligations.

The safety datasheets for our products have been updated to the REACH Annex II format.

Please note that polymers are exempted from the obligation to register under REACh, therefore a REACh registration No. cannot be provided or an eMSDS for our polymer products.

Regarding regulation EC No. 1272/2008 (CLP) it is our understanding that our products are considered as mixtures and are non-hazardous and as such do not require notification under CLP.

The components, these mixtures are composed of, will be submitted to the CLP inventory, if they fulfil one of the criteria as defined in Article 39 of CLP.

Please note that this declaration is only valid for prime products manufactured within the European Union.

INEOS Styrolution Group GmbH

DuPont Performance Solutions Switzerland Sàrl
Route du Nant-d´Avril 146
CH-1217 Meyrin
Switzerland

24 January 2023

Customer Letter 8 articles
Status: 17 January 2023

Dear Customer,

Subject: Absence of REACH 'Candidate List' Substances in Zytel®, except for the grades Zytel® ZAM GN1557, Zytel® ZAM GN1336 and Zytel® ZAM GN1323

We have received a number of material declaration requests from our customers referring to REACH and the potential presence of Substances of Very High Concern (SVHC).

The intent of this letter is to clarify how the Mobility & Materials products are affected by the REACH 'Candidate List'.

The above products fulfil the criteria of being articles in line with REACH article 3(3) and the ECHA guidance on 'Requirements for the substances in articles' as published in May 2008. There are no substances intended to be released from these products as defined by article 7(1) under normal or reasonably foreseeable conditions of use.

Mobility & Materials confirms that the above products do not contain any of the substances listed in the 'Candidate List'* as last amended on 17th January 2023 in a concentration above 0.1% weight by weight (w/w).
Mobility & Materials confirms that we do not add to the above products any of the substances listed on the Annex XIV to Regulation (EC) N° 1907/2006 as last amended on 8th April 2022 (Regulation (EU) 2022/586).

We are committed to comply in every respect to the requirements of REACH and relevant amendments. At present, we do not expect any anticipated Substances of Very High Concern to be in our above products requiring reporting to the supply chain.

Should you have any question regarding the content of this letter, or any other REACH related subject, please do not hesitate to contact us.

Yours faithfully,

Dr. Javier Francos
Product stewardship senior analyst

* http://echa.europa.eu/web/guest/candidate-list-table

DuPont Performance Solutions Switzerland Sàrl
Route du Nant-d´Avril 146
CH-1217 Meyrin
Switzerland

This information is based on our current level of knowledge and expresses only our intention. It does not constitute a binding obligation. Whilst the information is provided in good faith, no representations or warranties are made with regards to its completeness or accuracy and no liability will be accepted for damages of any nature whatsoever resulting from the use of or reliance on the information.
As we cannot be aware of all aspects of your business and the impact REACH Regulation may have on your company, we strongly encourage you to get familiar with REACH, its requirements and timelines.

Mobility & Materials has no intention to change its product portfolio of polymer offerings due to the introduction of REACH under the condition, that REACH does not impose commercial or technical burden, which could impact the health of our business. However, since Mobility & Materials depends on its suppliers, Mobility & Materials is not in full control of this decision. Based on industry assessments, it is likely that a certain number of chemicals will no longer be available to the European market. This may necessitate product reformulation, and subsequent product / article re-qualification, or, in more critical cases, to a complete product change.

DuPont Performance Solutions Switzerland Sàrl
Route du Nant-d´Avril 146
CH-1217 Meyrin
Switzerland

Status: 17 January 2023

‘Candidate List’ Substances

Publication Press release ECHA/NR/23/02
Date of inclusion 17th January 2023
Decision Number: -
Number of Substances: 9 (total 233)

Substance Name	1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene]
EC Number	253-692-3
CAS Number	37853-59-1
Reason for inclusion	Very persistent and very bioaccumulative (Article 57 e)

Substance Name	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol
EC Number	201-236-9
CAS Number	79-94-7
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	4,4'-sulphonyldiphenol
EC Number	201-250-5
CAS Number	80-09-1
Reason for inclusion	Toxic for reproduction (Article 57 c); Endocrine disrupting properties (Article 57 f – environment); Endocrine disrupting properties (Article 57 f – human health)

Substance Name	Barium diboron tetraoxide
EC Number	237-222-4
CAS Number	13701-59-2
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof
EC Number	-
CAS Number	-
Reason for inclusion	Very persistent and very bioaccumulative (Article 57 e)

Substance Name	Isobutyl 4-hydroxybenzoate
EC Number	224-208-8
CAS Number	4247-02-3
Reason for inclusion	Endocrine disrupting properties (Article 57 f – human health)

Substance Name	Melamine
EC Number	203-615-4
CAS Number	108-78-1
Reason for inclusion	Equivalent level of concern having probable serious effects to human health (Article 57 f – human health); Equivalent level of concern having probable serious effects to the environment (Article 57 f – environment)

Substance Name	Perfluoroheptanoic acid and its salts
EC Number	-
CAS Number	-
Reason for inclusion	Toxic for reproduction (Article 57 c); Persistent, bioaccumulative and toxic (Article 57 d); Very persistent and very bioaccumulative (Article 57 e); Equivalent level of concern having probable serious effects to human health (Article 57 f – human health); Equivalent level of concern having probable serious effects to the environment (Article 57 f – environment)

Substance Name	Reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine
EC Number	473-390-7
CAS Number	-
Reason for inclusion	Very persistent and very bioaccumulative (Article 57 e)

Publication Press release ECHA/NR/22/12
Date of inclusion 10th June 2022

Decision Number: -
Number of Substances: 1 (total 224)

Substance Name	N-(hydroxymethyl)acrylamide
EC Number	213-103-2
CAS Number	924-42-5
Reason for inclusion	Carcinogenic (Article 57a); Mutagenic (Article 57 b)

Publication Press release ECHA/NR/22/01
Date of inclusion 17th January 2022

Decision Number: -
Number of Substances: 4 (total 223)

Substance Name	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol
EC Number	204-327-1
CAS Number	119-47-1
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	tris(2-methoxyethoxy)vinylsilane
EC Number	213-934-0
CAS Number	1067-53-4
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)
EC Number	-
CAS Number	-
Reason for inclusion	Endocrine disrupting properties (Article 57f - human health and environment)

Substance Name	S-(tricyclo(5.2.1.02,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate
EC Number	401-850-9
CAS Number	255881-94-8
Reason for inclusion	PBT (Article 57 d), vPvB (Article 57 e)

Publication Press release ECHA/NR/21/20
Date of inclusion 8th July 2021

Decision Number: -
Number of Substances: 8 (total 219)

Substance Name	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers
EC Number	-
CAS Number	-
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Orthoboric acid, sodium salt
EC Number	237-560-2
CAS Number	13840-56-7
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	2,2-bis(bromomethyl)propane1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA
EC Number	221-967-7; 253-057-0; 202-480-9;
CAS Number	3296-90-0; 36483-57-5; 1522-92-5 or 96-13-9
Reason for inclusion	Carcinogen (Article 57 a)

Substance Name	Glutaral
EC Number	203-856-5
CAS Number	111-30-8
Reason for inclusion	Respiratory sensitizing properties (Article 57 f - human health)

Substance Name	Medium-chain chlorinated paraffins (MCCP) (UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17)
EC Number	-
CAS Number	-
Reason for inclusion	PBT (Article 57 d), vPvB (Article 57 e)

Substance Name	Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)
EC Number	-
CAS Number	-
Reason for inclusion	Toxic for reproduction (Article 57 c), Endocrine disrupting properties (Article 57f - human health and environment)

Substance Name	1,4-dioxane
EC Number	204-661-8
CAS Number	123-91-1
Reason for inclusion	Carcinogenic (Article 57a), Equivalent level of concern having probable serious effects to the environment (Article 57f - environment), Equivalent level of concern having probable serious effects to human health (Article 57f – human health)

Substance Name	4,4'-(1-methylpropylidene)bisphenol
EC Number	201-25-1
CAS Number	77-40-7
Reason for inclusion	Endocrine disrupting properties (Article 57f - human health and environment)

Publication Press release ECHA/NR/21/05
Date of inclusion 19th January 2021

Decision Number: D2020(9139)-DC
Number of Substances: 2 (total 211)

Substance Name	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety
EC Number	-
CAS Number	-
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name Bis(2-(2-methoxyethoxy)ethyl)ether
EC Number 205-594-7
CAS Number 143-24-8
Reason for inclusion Toxic for reproduction (Article 57 c)

Publication Press release ECHA/PR/20/052
Date of inclusion 25th June 2020

Decision Number: D2020(4578)-DC
Number of Substances: 4 (total 209)

Substance Name Dibutylbis(pentane-2,4-dionato-O,O')tin
EC Number 245-152-0
CAS Number 22673-19-4
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Butyl 4-hydroxybenzoate
EC Number 202-318-7
CAS Number 94-26-8
Reason for inclusion Endocrine disrupting properties (Article 57 f)

Substance Name 2-methylimidazole
EC Number 211-765-7
CAS Number 693-98-1
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 1-vinylimidazole
EC Number 214-012-0
CAS Number 1072-63-5
Reason for inclusion Toxic for reproduction (Article 57 c)

Publication Press release ECHA/PR/20/02
Date of inclusion 16th January 2020

Decision Number: ECHA_01_2020
Number of Substances: 4 (total 205)

Substance Name Diisohexyl phthalate
EC Number 276-090-2
CAS Number 71850-09-4
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone
EC Number 404-360-3
CAS Number 119313-12-1
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one
EC Number 400-600-6
CAS Number 71868-10-5
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Perfluorobutane sulfonic acid (PFBS) and its salts
EC Number -
CAS Number -
Reason for inclusion Equivalent level of concern having probable serious effects to environment and human health (Article 57f)

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Switzerland

Publication Press release ECHA/PR/19/12
Date of inclusion 16th July 2019
Decision Number: ED/71/2019
Number of Substances: 4 (total 201)

Substance Name	2-methoxyethyl acetate
EC Number	203-772-9
CAS Number	110-49-6
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with >=0.1% w/w of 4-nonylphenol, branched and linear (4-NP)
EC Number	-
CAS Number	-
Reason for inclusion	Endocrine disrupting properties (Article 57 f)

Substance Name	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)
EC Number	-
CAS Number	-
Reason for inclusion	Equivalent level of concern having probable serious effects to environment and human health (Article 57f)

Substance Name	4-tert-butylphenol
EC Number	202-679-0
CAS Number	98-54-4
Reason for inclusion	Endocrine disrupting properties (Article 57 f)

Publication Press release ECHA/PR/19/01
Date of inclusion 15th January 2019
Decision Number: ED/88/2018
Number of Substances: 6 (total 197)

Substance Name	2,2-bis(4'-hydroxyphenyl)-4-methylpentane
EC Number	401-720-1
CAS Number	6807-17-6
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Benzo[k]fluoranthene
EC Number	205-916-6
CAS Number	207-08-9
Reason for inclusion	Carcinogen (Article 57 a), PBT (Article 57 d), vPvB (Article 57 e)

Substance Name	Fluoranthene
EC Number	205-912-4
CAS Number	206-44-0
Reason for inclusion	PBT (Article 57 d), vPvB (Article 57 e)

Substance Name	Phenanthrene
EC Number	201-581-5
CAS Number	85-01-8
Reason for inclusion	vPvB (Article 57 e)

Substance Name	Pyrene
EC Number	204-927-3
CAS Number	129-00-0
Reason for inclusion	PBT (Article 57 d), vPvB (Article 57 e)

Substance Name 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one
EC Number 239-139-9
CAS Number 15087-24-8
Reason for inclusion Endocrine disrupting properties (Article 57 f)

Publication Press release ECHA/PR/18/11
Date of inclusion 27th June 2018

Decision Number: ED/61/2018
Number of Substances: 10 (total 191)

Substance Name Octamethylcyclotetrasiloxane (D4)
EC Number 209-136-7
CAS Number 556-67-2
Reason for inclusion PBT (Article 57 d), vPvB (Article 57 e)

Substance Name Decamethylcyclopentasiloxane (D5)
EC Number 208-764-9
CAS Number 541-02-6
Reason for inclusion PBT (Article 57 d), vPvB (Article 57 e)

Substance Name Dodecamethylcyclohexasiloxane (D6)
EC Number 208-762-8
CAS Number 540-97-6
Reason for inclusion PBT (Article 57 d), vPvB (Article 57 e)

Substance Name Lead
EC Number 231-100-4
CAS Number 7439-92-1
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Disodium octaborate
EC Number 234-541-0
CAS Number 12008-41-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Benzo[ghi]perylene
EC Number 205-883-8
CAS Number 191-24-2
Reason for inclusion PBT (Article 57 d), vPvB (Article 57 e)

Substance Name Terphenyl hydrogenated
EC Number 262-967-7
CAS Number 61788-32-7
Reason for inclusion vPvB (Article 57 e)

Substance Name Ethylenediamine (EDA)
EC Number 203-468-6
CAS Number 107-15-3
Reason for inclusion Respiratory sensitizing properties (Article 57 f - human health)

Substance Name Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)
EC Number 209-008-0
CAS Number 552-30-7
Reason for inclusion Respiratory sensitizing properties (Article 57 f - human health)

Substance Name	Dicyclohexyl phthalate (DCHP)
EC Number	201-545-9
CAS Number	84-61-7
Reason for inclusion	Toxic for reproduction (Article 57 c), Endocrine disrupting properties ((Article 57 f - human health)

Publication Press release ECHA/PR/18/01
Date of inclusion 15th January 2018

Decision Number: ED/01/2018
Number of Substances: 8 (total 181)

Substance Name	4,4'-isopropylidenediphenol (bisphenol A; BPA)
EC Number	201-245-8
CAS Number	80-05-7
Reason for inclusion	Endocrine disrupting properties (Article 57 f)

Substance Name	Chrysene
EC Number	205-923-4
CAS Number	218-01-9
Reason for inclusion	Carcinogenic (Article 57 a), PBT (Article 57 d), vPvB (Article 57 e)

Substance Name	Benz[a]anthracene
EC Number	200-280-6
CAS Number	56-55-3
Reason for inclusion	Carcinogenic (Article 57 a), PBT (Article 57 d), vPvB (Article 57 e)

Substance Name	Cadmium nitrate
EC Number	233-710-6
CAS Number	10325-94-7
Reason for inclusion	Carcinogenic (Article 57 a), Mutagenic (Article 57 b), Specific target organ toxicity after repeated exposure (Article 57 f)

Substance Name	Cadmium hydroxide
EC Number	244-168-5
CAS Number	21041-95-2
Reason for inclusion	Carcinogenic (Article 57 a), Mutagenic (Article 57 b), Specific target organ toxicity after repeated exposure (Article 57 f)

Substance Name	Cadmium carbonate
EC Number	208-168-9
CAS Number	513-78-0
Reason for inclusion	Carcinogenic (Article 57 a), Mutagenic (Article 57 b), Specific target organ toxicity after repeated exposure (Article 57 f)

Substance Name	1,6,7,8,9,14,15,16,17,17,18,18- Dodecachloropentacyclo[12.2.1.1^{6,9}.0^{2,13}.0^{5,10}]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]
EC Number	-
CAS Number	-
Reason for inclusion	vPvB (Article 57 e)

Substance Name	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear
EC Number	-
CAS Number	-
Reason for inclusion	Endocrine disrupting properties (Article 57 f)

Publication Press release ECHA/PR/17/14
Date of inclusion 07th July 2017
Decision Number: ED/30/2017
Number of Substances: 1 (total 174)

Substance Name	Perfluorohexane-1-sulphonic acid and its salts
EC Number	-
CAS Number	-
Reason for inclusion	vPvB (Article 57 e)

Publication Press release ECHA/PR/17/02
Date of inclusion 12th January 2017
Decision Number: ED/01/2017
Number of Substances: 4 (total 173)

Substance Name	4,4'-isopropylidenediphenol
EC Number	201-245-8
CAS Number	80-05-7
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts
EC Number	206-400-3, -, 221-470-5
CAS Number	335-76-2, 3830-45-3, 3108-42-7
Reason for inclusion	Toxic for reproduction (Article 57 c), PBT (Article 57 d)

Substance Name	*p*-(1,1-dimethylpropyl)phenol
EC Number	201-280-9
CAS Number	80-46-6
Reason for inclusion	Equivalent level of concern having probable serious effects to environment (Article 57f)

Substance Name	4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]
EC Number	-
CAS Number	-
Reason for inclusion	Equivalent level of concern having probable serious effects to environment (Article 57f)

Publication Press release ECHA/PR/16/07
Date of inclusion 20th June 2016
Decision Number: ED/21/2016
Number of Substances: 1 (total 169)

Substance Name	Benzo[def]chrysene
EC Number	200-028-5
CAS Number	50-32-8
Reason for inclusion	Carcinogenic (Article 57 a), Mutagenic (Article 57 b), Toxic for reproduction (Article 57 c), PBT (Article 57 d), vPvB (Article 57 e)

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CH-1217 Meyrin
Switzerland

Publication Press release ECHA/PR/15/18
Date of inclusion 17th December 2015
Decision Number: ED/79/2015
Number of Substances: 5 (total 168)

Substance Name Nitrobenzene
EC Number 202-716-0
CAS Number 98-95-3
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)
EC Number 223-383-8
CAS Number 3864-99-1
Reason for inclusion vPvB (Article 57 e)
Sunset date 27 November 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)
EC Number 253-037-1
CAS Number 36437-37-3
Reason for inclusion vPvB (Article 57 e)
Sunset date 27 November 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name 1,3-propanesultone
EC Number 214-317-9
CAS Number 1120-71-4
Reason for inclusion Carcinogenic (Article 57 a)

Substance Name Perfluorononan-1-oic-acid and its sodium and ammonium salts
EC Number 206-801-3
CAS Number 375-95-1, 21049-39-8, 4149-60-4
Reason for inclusion Toxic for reproduction (Article 57 c), PBT (Article 57 d)

Publication Press release ECHA/PR/15/09
Date of inclusion 15th June 2015

Decision Number: ED/39/2015
Number of Substances: 2 (total 165)

Substance Name 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate
EC Number 271-094-0, 272-013-1, 201-559-5
CAS Number 68515-51-5, 68648-93-1
Reason for inclusion Toxic for reproduction (Article 57 c)
Sunset date 27 February 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]
EC Number -
CAS Number -
Reason for inclusion vPvB (Article 57 e)
Sunset date 27 May 2023 (regulation (EU)2020/171 of 6th February 2020)

DuPont Performance Solutions Switzerland Sàrl
Route du Nant-d´Avril 146
CH-1217 Meyrin
Switzerland

Publication Press release ECHA/PR/14/18
Date of inclusion 17th December 2014
Decision Number: ED/108/2014
Number of Substances: 6 (total 163)

Substance Name	Bis (2-ethylhexyl)phthalate (DEHP)
EC Number	204-211-0
CAS Number	117-81-7
Reason for inclusion	Equivalent level of concern having probable serious effects to the environment Article 57 f); Toxic for reproduction (article 57c)
Sunset date	21 February 2015 (Règlement (EU) No 143/2011 of 17 February 2011)

Substance Name	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)
EC Number	223-346-6
CAS Number	3846-71-7
Reason for inclusion	PBT (Article 57 d); vPvB (Article 57 e)
Sunset date	27 November 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)
EC Number	239-622-4
CAS Number	15571-58-1
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)
EC Number	-
CAS Number	-
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
EC Number	247-384-8
CAS Number	25973-55-1
Reason for inclusion	PBT (Article 57 d); vPvB (Article 57 e)
Sunset date	27 November 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name	Cadmium fluoride
EC Number	232-222-0
CAS Number	7790-79-6
Reason for inclusion	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	Cadmium sulphate
EC Number	233-331-6
CAS Number	10124-36-4, 31119-53-6
Reason for inclusion	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f)

DuPont Performance Solutions Switzerland Sàrl
Route du Nant-d´Avril 146
CH-1217 Meyrin
Switzerland

Publication Press release ECHA/PR/14/11
Date of inclusion 16th June 2014
Decision Number: ED/49/2014
Number of Substances: 4 (total 157)

Substance Name	Cadmium chloride
EC Number	233-296-7
CAS Number	10108-64-2
Reason for inclusion	Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear
EC Number	271-093-5
CAS Number	68515-50-4
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	27 February 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name	Sodium peroxometaborate
EC Number	231-556-4
CAS Number	7632-04-4
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	27 May 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name	Sodium perborate; perboric acid, sodium salt
EC Number	239-172-9; 234-390-0
CAS Number	-
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	27 May 2023 (regulation (EU)2020/171 of 6th February 2020)

Publication Press release ECHA/PR/13/40
Date of inclusion 16th December 2013
Decision Number: ED/121/2013
Number of Substances: 7 (total 153)

Substance Name	Cadmium sulphide
EC Number	215-147-8
CAS Number	1306-23-6
Reason for inclusion	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)
EC Number	217-710-3
CAS Number	1937-37-7
Reason for inclusion	Carcinogenic (Article 57a)

Substance Name	Dihexyl phthalate
EC Number	201-559-5
CAS Number	84-75-3
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	27 February 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name	Imidazolidine-2-thione; (2-imidazoline-2-thiol)
EC Number	202-506-9
CAS Number	96-45-7
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Trixylyl phosphate
EC Number	246-677-8
CAS Number	25155-23-1
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	27 May 2023 (regulation (EU)2020/171 of 6th February 2020)

Substance Name	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)
EC Number	209-358-4
CAS Number	573-58-0
Reason for inclusion	Carcinogenic (Article 57a)

Substance Name	Lead di(acetate)
EC Number	206-104-4
CAS Number	301-04-2
Reason for inclusion	Toxic for reproduction (Article 57 c)

Publication Press release ECHA/PR/13/26
Date of inclusion 20th June 2013

Decision Number ED/69/2013
Number of Substances: 6 (total 146)

Substance Name	Cadmium
EC Number	231-152-8
CAS Number	7440-43-9
Reason for inclusion	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	Ammonium pentadecafluorooctanoate (APFO)
EC Number	223-320-4
CAS Number	3825-26-1
Reason for inclusion	Toxic for reproduction (Article 57 c); PBT (Article 57 d)

Substance Name	Pentadecafluorooctanoic acid (PFOA)
EC Number	206-397-9
CAS Number	335-67-1
Reason for inclusion	Toxic for reproduction (Article 57 c); PBT (Article 57 d)

Substance Name	Dipentyl phthalate (DPP)
EC Number	205-017-9
CAS Number	131-18-0
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]
EC Number	-
CAS Number	-
Reason for inclusion	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
Sunset date	4 January 2021 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	Cadmium oxide
EC Number	215-146-2
CAS Number	1306-19-0
Reason for inclusion	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	Cadmium sulphide
EC Number	215-147-8
CAS Number	1306-23-6
Reason for inclusion	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)

Publication Press release ECHA/PR/12/39
Date of inclusion 19th December 2012

Decision Number ED/169/2012
Number of Substances: 54 (total 140)

Substance Name	Pyrochlore, antimony lead yellow
EC Number	232-382-1
CAS Number	8012-00-8
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	6-methoxy-m-toluidine (p-cresidine)
EC Number	204-419-1
CAS Number	120-71-8
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	Henicosafluoroundecanoic acid
EC Number	218-165-4
CAS Number	2058-94-8
Reason for inclusion	vPvB (Article 57 e)

Substance Name	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]
EC Number	247-094-1 ; 243-072-0 ; 256-356-4 ; 260-566-1
CAS Number	25550-51-0 ; 19438-60-9 ; 48122-14-1 ; 57110-29-9
Reason for inclusion	Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], transcyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and transisomers [1] are covered by this entry]
EC Number	201-604-9 ; 236-086-3 ; 238-009-9
CAS Number	85-42-7 ; 13149-00-3 ; 14166-21-3
Reason for inclusion	Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	Dibutyltin dichloride (DBTC)
EC Number	211-670-0
CAS Number	683-18-1
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Lead bis(tetrafluoroborate)
EC Number	237-486-0
CAS Number	13814-96-5
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name Lead dinitrate
EC Number 233-245-9
CAS Number 10099-74-8
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Silicic acid, lead salt
EC Number 234-363-3
CAS Number 11120-22-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 4-Aminoazobenzene
EC Number 200-453-6
CAS Number 60-09-3
Reason for inclusion Carcinogenic (Article 57 a)

Substance Name Lead titanium zirconium oxide
EC Number 235-727-4
CAS Number 12626-81-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Lead monoxide (lead oxide)
EC Number 215-267-0
CAS Number 1317-36-8
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name o-Toluidine
EC Number 202-429-0
CAS Number 95-53-4
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine
EC Number 421-150-7
CAS Number 143860-04-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Silicic acid (H2Si2O5), barium salt (1:1), lead-doped [with lead (Pb) *content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]*
EC Number 272-271-5
CAS Number 68784-75-8
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Trilead bis(carbonate)dihydroxide
EC Number 215-290-6
CAS Number 1319-46-6
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Furan
EC Number 203-727-3
CAS Number 110-00-9
Reason for inclusion Carcinogenic (Article 57 a)

Substance Name N,N-dimethylformamide
EC Number 200-679-5
CAS Number 68-12-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]
EC Number	-
CAS Number	-
Reason for inclusion	Equivalent level of concern having probable serious effects to human health (Article 57 f)
Sunset date	4 January 2021 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]
EC Number	-
CAS Number	-
Reason for inclusion	Equivalent level of concern having probable serious effects to human health (Article 57 f)

Substance Name	4,4'-methylenedi-o-toluidine
EC Number	212-658-8
CAS Number	838-88-0
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	Diethyl sulphate
EC Number	200-589-6
CAS Number	64-67-5
Reason for inclusion	Carcinogenic (Article 57 a); Mutagenic (Article 57 b)

Substance Name	Dimethyl sulphate
EC Number	201-058-1
CAS Number	77-78-1
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	Lead oxide sulfate
EC Number	234-853-7
CAS Number	12036-76-9
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Lead titanium trioxide
EC Number	235-038-9
CAS Number	12060-00-3
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Acetic acid, lead salt, basic
EC Number	257-175-3
CAS Number	51404-69-4
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	[Phthalato(2-)]dioxotrilead
EC Number	273-688-5
CAS Number	69011-06-9
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)
EC Number	214-604-9
CAS Number	1163-19-5
Reason for inclusion	PBT (Article 57 d); vPvB (Article 57 e)

Substance Name	N-methylacetamide
EC Number	201-182-6
CAS Number	79-16-3
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Dinoseb (6-sec-butyl-2,4-dinitrophenol)
EC Number	201-861-7
CAS Number	88-85-7
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	1,2-Diethoxyethane
EC Number	211-076-1
CAS Number	629-14-1
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Tetralead trioxide sulphate
EC Number	235-380-9
CAS Number	12202-17-4
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	N-pentyl-isopentylphthalate
EC Number	-
CAS Number	776297-69-9
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	Dioxobis(stearato)trilead
EC Number	235-702-8
CAS Number	12578-12-0
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Tetraethyllead
EC Number	201-075-4
CAS Number	78-00-2
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Pentalead tetraoxide sulphate
EC Number	235-067-7
CAS Number	12065-90-6
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Pentacosafluorotridecanoic acid
EC Number	276-745-2
CAS Number	72629-94-8
Reason for inclusion	vPvB (Article 57 e)

Substance Name	Tricosafluorododecanoic acid
EC Number	206-203-2
CAS Number	307-55-1
Reason for inclusion	vPvB (Article 57 e)

Substance Name	Heptacosafluorotetradecanoic acid
EC Number	206-803-4
CAS Number	376-06-7
Reason for inclusion	vPvB (Article 57 e)

Substance Name	1-bromopropane (n-propyl bromide)
EC Number	203-445-0
CAS Number	106-94-5
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	4 July 2017 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	Methoxyacetic acid
EC Number	210-894-6
CAS Number	625-45-6
Reason for inclusion	Toxic for reproduction (Article 57 c)

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Substance Name	4-methyl-m-phenylenediamine (toluene-2,4-diamine)
EC Number	202-453-1
CAS Number	95-80-7
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	Methyloxirane (Propylene oxide)
EC Number	200-879-2
CAS Number	75-56-9
Reason for inclusion	Carcinogenic (Article 57 a); Mutagenic (Article 57 b)

Substance Name	Trilead dioxide phosphonate
EC Number	235-252-2
CAS Number	12141-20-7
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	o-aminoazotoluene
EC Number	202-591-2
CAS Number	97-56-3
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear
EC Number	284-032-2
CAS Number	84777-06-0
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	4,4'-oxydianiline and its salts
EC Number	202-977-0
CAS Number	101-80-4
Reason for inclusion	Carcinogenic (Article 57 a); Mutagenic (Article 57 b)

Substance Name	Orange lead (lead tetroxide)
EC Number	215-235-6
CAS Number	1314-41-6
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Biphenyl-4-ylamine
EC Number	202-177-1
CAS Number	92-67-1
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	Diisopentylphthalate
EC Number	210-088-4
CAS Number	605-50-5
Reason for inclusion	Toxic for reproduction (Article 57 c)
Sunset date	4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	Fatty acids, C16-18, lead salts
EC Number	292-966-7
CAS Number	91031-62-8
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))
EC Number	204-650-8
CAS Number	123-77-3
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name	Sulfurous acid, lead salt, dibasic
EC Number	263-467-1
CAS Number	62229-08-7
Reason for inclusion	Toxic for reproduction (Article 57 c)

Substance Name Lead cyanamidate
EC Number 244-073-9
CAS Number 20837-86-9
Reason for inclusion Carcinogenic (Article 57 a)

Publication Press release ECHA/PR/12/16
Date of inclusion 18th June 2012

Decision Number ED/87/2012
Number of Substances: 13 (total 86)

Substance Name 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)
EC Number 203-977-3
CAS Number 112-49-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)
EC Number 203-794-9
CAS Number 110-71-4
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Diboron trioxide
EC Number 215-125-8
CAS Number 1303-86-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Formamide
EC Number 200-842-0
CAS Number 75-12-7
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name Lead(II) bis(methanesulfonate)
EC Number 401-750-5
CAS Number 17570-76-2
Reason for inclusion Toxic for reproduction (Article 57 c)

Substance Name 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (TGIC)
EC Number 219-514-3
CAS Number 2451-62-9
Reason for inclusion Mutagenic (Article 57 b)

Substance Name 1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)
EC Number 423-400-0
CAS Number 59653-74-6
Reason for inclusion Mutagenic (Article 57 b)

Substance Name 4,4'-bis(dimethylamino)benzophenone (Michler's ketone)
EC Number 202-027-5
CAS Number 90-94-8
Reason for inclusion Carcinogenic (Article 57 a)

Substance Name N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)
EC Number 202-959-2
CAS Number 101-61-1
Reason for inclusion Carcinogenic (Article 57 a)

Substance Name	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]
EC Number	219-943-6
CAS Number	2580-56-5
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]
EC Number	208-953-6
CAS Number	548-62-9
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]
EC Number	209-218-2
CAS Number	561-41-1
Reason for inclusion	Carcinogenic (Article 57 a)

Substance Name	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]
EC Number	229-851-8
CAS Number	6786-83-0
Reason for inclusion	Carcinogenic (Article 57 a)

Publication Press release ECHA/PR/11/26
Date of inclusion 19th December 2011

Decision Number ED/77/2011
Number of Substances: 20

Substance Name	Zirconia Aluminosilicate Refractory Ceramic Fibres *are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight*
EC Number	-
CAS Number	-
Reason for inclusion	Carcinogenic (article 57 a)

Substance Name	Calcium arsenate
EC Number	231-904-5
CAS Number	7778-44-1
Reason for inclusion	Carcinogenic (article 57 a)

Substance Name	Bis(2-methoxyethyl) ether
EC Number	203-924-4
CAS Number	111-96-6
Reason for inclusion	Toxic for reproduction (article 57 c)
Sunset date	22 August 2017 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name Aluminosilicate Refractory Ceramic Fibres
are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight
EC Number -
CAS Number -
Reason for inclusion Carcinogenic (article 57 a)

Substance Name Potassium hydroxyoctaoxodizincatedichromate
EC Number 234-329-8
CAS Number 11103-86-9
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 22 January 2019 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name Lead dipicrate
EC Number 229-335-2
CAS Number 6477-64-1
Reason for inclusion Toxic for reproduction (article 57 c)

Substance Name N,N-dimethylacetamide
EC Number 204-826-4
CAS Number 127-19-5
Reason for inclusion Toxic for reproduction (article 57 c)

Substance Name Arsenic acid
EC Number 231-901-9
CAS Number 7778-39-4
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 22 August 2017 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name 2-Methoxyaniline; o-Anisidine
EC Number 201-963-1
CAS Number 90-04-0
Reason for inclusion Carcinogenic (article 57 a)
Substance Name Trilead diarsenate
EC Number 222-979-5
CAS Number 3687-31-8
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name 1,2-dichloroethane
EC Number 203-458-1
CAS Number 107-06-2
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 22 November 2017 (Regulation (EU) No 895/2014 of 14 August 2014

Substance Name Pentazinc chromate octahydroxide
EC Number 256-418-0
CAS Number 49663-84-5
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 22 January 2019 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name 4-(1,1,3,3-tetramethylbutyl)phenol
EC Number 205-426-2
CAS Number 140-66-9
Reason for inclusion Equivalent level of concern having probable serious effects to the environment(article 57f)

Substance Name	Formaldehyde, oligomeric reaction products with aniline
EC Number	500-036-1
CAS Number	25214-70-4
Reason for inclusion	Carcinogenic (article 57 a)
Sunset date	22 August 2017 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name	Bis(2-methoxyethyl) phthalate
EC Number	204-212-6
CAS Number	117-82-8
Reason for inclusion	Toxic for reproduction (article 57 c)
Sunset date	4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	Lead diazide, Lead azide
EC Number	236-542-1
CAS Number	13424-46-9
Reason for inclusion	Toxic for reproduction (article 57 c)

Substance Name	Lead styphnate
EC Number	239-290-0
CAS Number	15245-44-0
Reason for inclusion	Toxic for reproduction (article 57 c)

Substance Name	2,2'-dichloro-4,4'-methylenedianiline
EC Number	202-918-9
CAS Number	101-14-4
Reason for inclusion	Carcinogenic (article 57 a)
Sunset date	22 November 2017 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name	Phenolphthalein
EC Number	201-004-7
CAS Number	77-09-8
Reason for inclusion	Carcinogenic (article 57 a)

Substance Name	Dichromium tris(chromate)
EC Number	246-356-2
CAS Number	24613-89-6
Reason for inclusion	Carcinogenic (article 57 a)
Sunset date	22 January 2019 (Regulation (EU) No 895/2014 of 14 August 2014)

Publication Press release ECHA/PR/11/15
Date of inclusion 20th June 2011

Decision number ED/31/2011
Number of Substances: 7

Substance Name	Cobalt dichloride (update of entry from 28th October 2008)
EC Number	231-589-4
CAS Number	7646-79-9
Reason for inclusion	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
Decision number	ED/31/2011 / ED/67/2008

Substance Name	1,2,3-Trichloropropane
EC Number	202-486-1
CAS Number	96-18-4
Reason for inclusion	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters
EC Number 271-084-6
CAS Number 68515-42-4
Reason for inclusion Toxic for reproduction (article 57 c)
Sunset date 4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name 1-Methyl-2-pyrrolidone
EC Number 212-828-1
CAS Number 872-50-4
Reason for inclusion Toxic for reproduction (article 57 c)

Substance Name Hydrazine
EC Number 206-114-9
CAS Number 302-01-2, 7803-57-8
Reason for inclusion Carcinogenic (article 57 a)

Substance Name Strontium chromate
EC Number 232-142-6
CAS Number 7789-06-2
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 22 January 2019 (Regulation (EU) No 895/2014 of 14 August 2014)

Substance Name 2-Ethoxyethyl acetate
EC Number 203-839-2
CAS Number 111-15-9
Reason for inclusion Toxic for reproduction (article 57 c)

Substance Name 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich
EC Number 276-158-1
CAS Number 71888-89-6
Reason for inclusion Toxic for reproduction (article 57 c)
Sunset date 4 July 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Publication Press release ECHA/PR/10/26
Date of inclusion 15th December 2010

Decision number ED/95/2010
Number of Substances: 8

Substance Name Acids generated from chromium trioxide and their oligomers. Group containing: Chromic acid, Dichromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid
EC Number 231-801-5, 236-881-5
CAS Number 7738-94-5, 13530-68-2
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Cobalt(II) carbonate
EC Number 208-169-4
CAS Number 513-79-1
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name Cobalt(II) diacetate
EC Number 200-755-8
CAS Number 71-48-7
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name 2-Methoxyethanol
EC Number 203-713-7
CAS Number 109-86-4
Reason for inclusion Toxic for reproduction (article 57c)

Substance Name Chromium trioxide
EC Number 215-607-8
CAS Number 1333-82-0
Reason for inclusion Carcinogenic and mutagenic (articles 57 a and 57 b)
Sunset date 21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Cobalt(II) dinitrate
EC Number 233-402-1
CAS Number 10141-05-6
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name Cobalt(II) sulphate
EC Number 233-334-2
CAS Number 10124-43-3
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name 2-Ethoxyethanol
EC Number 203-804-1
CAS Number 110-80-5
Reason for inclusion Toxic for reproduction (article 57c)

Publication Press release ECHA/PR/10/12
Date of inclusion 18th June 2010

Decision number ED/30/2010
Number of Substances: 8

Substance Name Disodium tetraborate, anhydrous
EC Number 215-540-4
CAS Number 1303-96-4, 1330-43-4, 12179-04-3
Reason for inclusion Toxic for reproduction (article 57c)

Substance Name Tetraboron disodium heptaoxide, hydrate
EC Number 235-541-3
CAS Number 12267-73-1
Reason for inclusion Toxic for reproduction (article 57c)

Substance Name Potassium dichromate
EC Number 231-906-6
CAS Number 7778-50-9
Reason for inclusion Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
Sunset date 21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Ammonium dichromate
EC Number 232-143-1
CAS Number 7789-09-5
Reason for inclusion Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
Sunset date 21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Trichloroethylene
EC Number 201-167-4
CAS Number 79-01-6
Reason for inclusion Carcinogenic (article 57 a)
Sunset date 21 April 2016 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Sodium chromate
EC Number 231-889-5
CAS Number 7775-11-3
Reason for inclusion Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
Sunset date 21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Potassium chromate
EC Number 232-140-5
CAS Number 7789-00-6
Reason for inclusion Carcinogenic and mutagenic (articles 57 a and 57 b)
Sunset date 21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name Boric acid
EC Number 233-139-2, 234-343-4
CAS Number 10043-35-3, 11113-50-1
Reason for inclusion Toxic for reproduction (article 57 c)

Publication Press release ECHA/PR/10/05
Date of inclusion 30th March 2010

Decision number ED/68/2009
Number of Substances: 1

Substance Name Acrylamide
EC Number 201-173-7
CAS Number 79-06-1
Reason for inclusion Carcinogenic and mutagenic (articles 57 a and 57 b)

Publication Press release ECHA/PR/10/01
Date of inclusion 13th January 2010

Decision number ED/68/2009
Number of Substances: 14

Substance Name Lead chromate molybdate sulphate red (C.I. Pigment Red 104)
EC Number 235-759-9
CAS Number 12656-85-8
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
Sunset date 21 May 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name Lead chromate
EC Number 231-846-0
CAS Number 7758-97-6
Reason for inclusion Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
Sunset date 21 May 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name Anthracene oil, anthracene-low
EC Number 292-604-8
CAS Number 90640-82-7
Reason for inclusion Carcinogenic[2], mutagenic[3], PBT and vPvB (articles 57a, 57b, 57d and 57e)

Substance Name 2,4-Dinitrotoluene
EC Number 204-450-0
CAS Number 121-14-2
Reason for inclusion Carcinogenic (article 57a)
Sunset date 21 August 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

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Switzerland

Substance Name	Tris(2-chloroethyl)phosphate
EC Number	204-118-5
CAS Number	115-96-8
Reason for inclusion	Toxic for reproduction (article 57c)
Sunset date	21 August 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name	Anthracene oil, anthracene paste, anthracene fraction
EC Number	295-275-9
CAS Number	91995-15-2
Reason for inclusion	Carcinogenic[2], mutagenic[3], PBT and vPvB (articles 57a, 57b, 57d and 57e)

Substance Name	Anthracene oil
EC Number	292-602-7
CAS Number	90640-80-5
Reason for inclusion	Carcinogenic[1], PBT and vPvB (articles 57a, 57d and 57e)
Sunset date	4 October 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name Aluminosilicate Refractory Ceramic Fibres
are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the two following conditions: a) Al2O3 and SiO2 are present within the following concentration ranges: Al2O3: 43.5 – 47 % w/w, and SiO2: 49.5 – 53.5 % w/w, or Al2O3: 45.5 – 50.5 % w/w, and SiO2: 48.5 – 54 % w/w, b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm).

EC Number	Extracted from Index no.: 650-017-00-8
CAS Number	-
Reason for inclusion	Carcinogenic (article 57a)

Substance Name Zirconia Aluminosilicate Refractory Ceramic Fibres
are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the two following conditions: a) Al2O3, SiO2 and ZrO2 are present within the following concentration ranges: Al2O3: 35 – 36 % w/w, and SiO2: 47.5 – 50 % w/w, and ZrO2: 15 - 17 % w/w, b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm).

EC Number	Extracted from Index no. 650-017-00-8
CAS Number	-
Reason for inclusion	Carcinogenic (article 57a)

Substance Name	Pitch, coal tar, high temp.
EC Number	266-028-2
CAS Number	65996-93-2
Reason for inclusion	Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e)
Sunset date	4 October 2020 (Regulation (EU) No 999/2017 of 13 June 2017)

Substance Name	Lead sulfochromate yellow (C.I. Pigment Yellow 34)
EC Number	215-693-7
CAS Number	1344-37-2
Reason for inclusion	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
Sunset date	21 May 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name	Anthracene oil, anthracene paste,distn. lights
EC Number	295-278-5
CAS Number	91995-17-4
Reason for inclusion	Carcinogenic[2], mutagenic[3], PBT and vPvB (articles 57a, 57b, 57d and 57e)

Substance Name	Diisobutyl phthalate (DIBP)
EC Number	201-553-2
CAS Number	84-69-5
Reason for inclusion	Toxic for reproduction (article 57c)
Sunset date	21 February 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name	Anthracene oil, anthracene paste
EC Number	292-603-2
CAS Number	90640-81-6
Reason for inclusion	Carcinogenic[2], mutagenic[3], PBT and vPvB (articles 57a, 57b, 57d and 57e)

Publication Press release ECHA/PR/08/38
Date of inclusion 28th October 2008

Decision number ED/67/2008
Number of Substances: 15

Substance Name	Cobalt dichloride (updated 20th June 2011)
EC Number	231-589-4
CAS Number	7646-79-9
Reason for inclusion	Carcinogenic (article 57a)

Substance Name	Sodium dichromate
EC Number	234-190-3
CAS Number	7789-12-0, 10588-01-9
Reason for inclusion	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)
Sunset date	21 September 2017 (Regulation (EU) No 348/2013 of 17 April 2013)

Substance Name	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)
EC Number	201-329-4
CAS Number	81-15-2
Reason for inclusion	vPvB (article 57e)
Sunset date	21 August 2014 (Regulation (EU) No 143/2011 of 17 February 2011)

Substance Name	4,4'- Diaminodiphenylmethane (MDA)
EC Number	202-974-4
CAS Number	101-77-9
Reason for inclusion	Carcinogenic (article 57a)
Sunset date	21 August 2014 (Regulation (EU) No 143/2011 of 17 February 2011)

Substance Name	Bis(tributyltin)oxide (TBTO)
EC Number	200-268-0
CAS Number	56-35-9
Reason for inclusion	PBT (article 57d)

Substance Name	Triethyl arsenate
EC Number	427-700-2
CAS Number	15606-95-8
Reason for inclusion	Carcinogenic (article 57a)

Substance Name	Dibutyl phthalate (DBP)
EC Number	201-557-4
CAS Number	84-74-2
Reason for inclusion	Toxic for reproduction (article 57c)
Sunset date	21 February 2015 (Regulation (EU) No 143/2011 of 17 February 2011)

Substance Name	Diarsenic trioxide
EC Number	215-481-4
CAS Number	1327-53-3
Reason for inclusion	Carcinogenic (article 57a)
Sunset date	21 May 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name	Anthracene
EC Number	204-371-1
CAS Number	120-12-7
Reason for inclusion	PBT (article 57d)

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Substance Name	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
EC Number	287-476-5
CAS Number	85535-84-8
Reason for inclusion	PBT and vPvB (articles 57 d and 57 e)

Substance Name	Lead hydrogen arsenate
EC Number	232-064-2
CAS Number	7784-40-9
Reason for inclusion	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)

Substance Name	Benzyl butyl phthalate (BBP)
EC Number	201-622-7
CAS Number	85-68-7
Reason for inclusion	Toxic for reproduction (article 57c)
Sunset date	21 February 2015 (Regulation (EU) No 143/2011 of 17 February 2011)

Substance Name	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane
EC Number	247-148-4 and 221-695-9
CAS Number	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)
Reason for inclusion	PBT (article 57d)
Sunset date	21 August 2015 (Regulation (EU) No 143/2011 of 17 February 2011)

Substance Name	Diarsenic pentaoxide
EC Number	215-116-9
CAS Number	1303-28-2
Reason for inclusion	Carcinogenic (article 57a)
Sunset date	21 May 2015 (Regulation (EU) No 125/2012 of 14 February 2012)

Substance Name	Bis (2-ethylhexyl)phthalate (DEHP)
EC Number	204-211-0
CAS Number	117-81-7
Reason for inclusion	Toxic for reproduction (article 57c)
Sunset date	21 February 2015 (Regulation (EU) No 143/2011 of 17 February 2011)

EC number, CAS number: the EC number includes both anhydrous and hydrated forms of a substance and consequently the entries cover both these forms. The CAS number included may be for the anhydrous form only, and therefore the CAS number shown does not always describe the entry accurately.

IUCLID 5 Substance Dataset: these are partly pre-filled substance data sets in IUCLID 5.3 format. They are provided as a support for importers or producers of articles preparing notifications for substances in articles. The notifying company remains, however, solely responsible for the appropriateness and correctness of the information submitted in the notification.

1) The substance does not meet the criteria for identification as a carcinogen in situations where it contains less than 0.005 % (w/w) benzo[a]pyrene (EINECS No 200-028-5)

2) The substance does not meet the criteria for identification as a carcinogen in situations where it contains less than 0.005 % (w/w) benzo[a]pyrene (EINECS No 200-028-5) and less than 0,1 % w/w benzene (EINECS No 200-753-7).]

3) The substance does not meet the criteria for identification as a mutagen in situations where it contains less than 0,1 % w/w benzene (EINECS No 200-753-7).]

DECLARATION OF COMPLIANCE CERTIFICATE

Ethylene Vinyl Acetate Copolymers (EVA) / CAS 24937-78-8

ABSTRACT

This Declaration of Compliance Certificate is owned by the Compliance and Product Stewardship Department which covers the EU Regulation / Directive, US FDA and other legislation related to health, safety, and environment concerns.

Mustafa Fatani
Prepared By

Dr. Richard Tomanek
Approved By

SAHARA INTERNATIONAL PETROCHEMICAL CO.
APPROVED
Compliance & Product Stewardship Dept.

Updated in Jan 2023

Declaration of Compliance Certificate

To Whom It May Concern,

Sahara **I**nternational **P**etrochemical **C**ompany (SIPCHEM) declares that **Ethylene Vinyl Acetate Copolymers** product is manufactured and formulated in accordance with the compositional requirements to meet and comply with the following list of regulations.

Note: Food compliance are applicable to: (EVA 2518 CO, EVA 0818 LO, EVA 2014 CO)

Sipchem hereby confirms that will notify and declare about the following changes to the manufacturing process that could affect the quality, safety & efficacy of the product supplied, prior to implementation. (Change of manufacturing site / major changes to the manufacturing facility, Change of Equipment, Major changes in the manufacturing process or synthetic route, Changes to the specification or method of analysis and Change of Packaging, Storage& Packaging conditions).

Note:

Contact compliancesp@sipchem.com for more information

REACH

- Vinyl Acetate Monomer (VAM) REACH reg. no.: 01-2119471301-50-0182.

Above mentioned raw material is used in EVA manufacturing and registered for REACH.
EVA product is free from the restricted substances under REACH Annex XVII list.
Therefore, EVA product is exempted from the provision on registration on title of REACH (Article 2 (9)).

Food Contact EU

EVA product complies with the following regulation list:

- Framework Regulation (EC) 1935/2004. Ref.Link
- Commission Regulation (EU) 2020/1245 of 2 September 2020 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food. Ref.Link
- Commission Regulation (EC) No 2023/2006 of 22 December 2006 on good manufacturing practice for materials and articles intended to come into contact with food. Ref.Link
- Commission Directive 2008/60/EC of 17 June 2008 (Laying down specific purity criteria concerning sweeteners for use in foodstuffs). Ref.Link
- According to EU Regulation no. 10/2011, Dual Use Additive are additives which are authorized for the manufacture of plastic materials and articles and at the same time authorized as food additive or flavoring substances. Therefore, additives in EVA product is considered safe to manufacture plastic materials and articles intended to come into contact with food. Ref.Link

Specific Migration Limit of (Ethylene Monomer CAS 74-85-1, Vinyl Acetate Monomer CAS 108-05-4, Propylene CAS 115-07-1 & Phenolic Antioxidant CAS 2082-79-3) are (60, 12, 60 & 6) ppm respectively.

US FDA

EVA product complies with FDA regulation 21 CFR 177.1350 Subpart B (INDIRECT FOOD ADDITIVES: POLYMERS - Substances for Use as Basic Components of Single and Repeated Use Food Contact Surfaces) Ref.Link

EVA also satisfies requirements for all Food Types and Conditions of Use A-H as described in Tables 1 and 2, respectively, found on the FDA website at: Ref.Link

Food Contact – China

EVA product complies with the Chinese Standards GB9685-2016, GB4806.1-2016 and GB4806.6-20161. where Vinyl Acetate Monomer SML is 12 ppm.

Halal Certificate

EVA product is manufactured in a standard industrial process without the use of any animal derived additives nor Non-Halal chemicals. Therefore, we confirm that our EVA product can be considered as compliant with Halal principles.

SVHC

Chemicals listed in the Substances of Very High Concern list (SVHC) are not intentionally added during the manufacturing process of EVA.
Latest update by ECHA January 17, 2023. Ref.

California Proposition 65

EVA product complies with California Proposition 65 (updated on February 25, 2022). The product represents 'no significant risk' for cancer to the people of California. The product contains no substances known to the State of California to cause reproductive toxicity at a level of exposure subject to the requirements of Propositions 65. Ref.Link

Shelf Life

The maximum allowable recommended shelf life for EVA is 6 years when stored at ambient conditions recommended in the SDS:

- Store in a cool, dry place with temperature below 75° F
- Keep away from direct heat or open flames.
- Avoid contact with solvents or other fluids.
- Do not store in direct sunlight.
- Keep products wrapped or sealed to minimize the absorption of moisture.
- Store in a relaxed condition free from tension, compression or other deformation.

See Safety Data Sheet Here.

Mercosur

(Argentina, Brazil, Uruguay, Paraguay, Venezuela and Bolivia)
EVA product meets the requirements of following regulations: Ref.Link

- GMC Resolution No. 03/1992 of April 1st, 1992, which "establishes the general criteria and classification of materials for packaging and equipment in contact with food".

- GMC Resolution No. 02/2012 of April 19th, 2012 which provides a "positive list of monomers, other starting substances and polymers authorized for the manufacture of plastic packaging and equipment that come into contact with food".
- GMC Resolution No. 32/2007 of December 11th, 2007 which provides a "positive list of additives for plastic materials intended for packaging and equipment manufacturing for contact with foods.

RoHS

EVA product complies with the Restriction of Hazardous Substances Directive where none of the following substance are intentionally added to the process. (Cadmium, Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers, Bis(2-ethylhexyl) phthalate, Butyl benzyl phthalate, Dibutyl phthalate & Diisobutyl phthalate) as per Directive (EU) 2015/863. Ref.Link

TSE/BSE

EVA product is free of Transmissible Spongiform Encephalopathy and Bovine Spongiform Encephalopathy where no animal, animal products, veterinary vaccines or animal pathogens are added in the process nor in contact with packaging, storing nor transportation as per Commission Directive 2003/32/EC. Ref.Link

Phthalates

Phthalates are not used as additives or raw materials in the manufacture of EVA product as per Directive 2005/84/EC, Commission Decision 1999/815/EC. Ref.Link

Toys

EVA product meets the relevant requirements of Directive 2009/48/EC (replaced 88/378/EEC (Toy Safety)) Ref.Link

VOC

EVA product complies with the Volatile Organic Content legislation, it is not considered to be volatile organic compounds (VOC), nor does it contain a VOC as per Directive 2004/42/EC. Ref.Link

ODC

EVA Product complies with regulation EC no. 2037/200 Ozone Depleting Substance (ODC) where none of the following materials are intentionally used in EVA manufacturing

(chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane, hydrobromofluorocarbons). Ref.Link

WEEE

Directive 2002/96/EC on waste electrical and electronic equipment ("WEEE Directive") is regulating the recovery and disposal of waste electrical and electronics equipment. Therefore, compliance with this directive has to be confirmed by the manufacturer of the final parts. Ref.Link

CONEG (Heavy Metals)

EVA product meets the requirement of Coalition of Northeastern Governors and Directive 94/62/EC. Where heavy metals (Cadmium, Lead, Mercury) are not intentionally added to the process. Ref.Link

IKEA Specifications

EVA product meets the requirement of:

- IOS-MAT-0010
- IOS-MAT-0054
- IOS-MAT-0205
- IOS-MAT-0103

GADSL

EVA product is not in the Global Automotive Declarable Substance List.

Directive 2006/122/EC

EVA product complies with Directive 2006/122/EC where none of the following substances are present:
Perfluorinated compounds (PFC), Perfluorinated tenside (PFT), Perfluorooctanoic acid PFOA) & Perfluorooctane sulfonate (PFOS). Ref.Link

TNPP & TNPE

EVA product complies with Directive 2003/53/EC where it is free of Nonylphenol and its derivatives including Tris(nonylphenyl) Phosphite (TNPP) and Tris(nonylphenyl) ethoxylates (TNPE). Ref.Link

PAH

EVA product complies with Directive no. 208/2005 which Polycyclic Aromatic Hydrocarbons substances are added in the manufacturing. Ref.Link

Dodd-Frank Act

EVA product is free of Conflict Minerals (Tin, Tantalum, Tungsten, and Gold) which are also known as 3TG.

CMR Substances

EVA product complies with Directives no. 67/548/EEC and 76/769/EEC which (Carcinogens, Mutagens and toxic for reproduction) are not intentionally added into the process. Ref.Link

GMO

Genetic Modified Organisms and recombinant DNA technology are not present in EVA product process.

POP

EVA product complies with Persistent Organic Pollutants Regulation (EU) 2019/1021. Where it is safe to the environment and human health. Ref.Link

Oeko Tex Standard 100

EVA product complies with Oeko Tex Standard 100. where it is safe for human use and free of more than 100 substances known to be harmful chemicals to human health.

European Resolution AP (92)

EVA product complies with European Resolution AP (92) regarding migration limits of known polymerization additives.

ZDHC MRSL

EVA product can be used by the group of apparel and footwear brands and retailers who are leading industries towards Zero Discharge of Hazardous Chemicals to minimize the impact on humans and environment. Therefore, substances in Manufacturing Restricted Substances List are not intentionally added to EVA product.

CLP Regulation

EVA product complies with the Regulation (EC) No. 1272/2008 for Classification, Labeling and Packaging. Which aligns with EU legislation to the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Nitrosamine Free

Sipchem confirms that there is no possibility of Nitrosamine impurities (listed below) from the input material reaction chemistry (refer Annexure-II for starting material Route of synthesis) as well as from the manufacturing process of EVA.

Nitrosamine Impurities:

- N-nitrosodimethylamine (NDMA)
- N-nitrosodiethylamine (NDEA)
- N-nitroso-N-methyl-4-aminobutyric acid (NMBA)
- N-nitrosodiisopropylamine (NDIPA)
- N-nitroso-ethylisopropylamine (NEIPA)
- N-nitrosodibutylamine (NDBA)

Global Chemical Inventories

EVA product is listed in the following Global Chemical Inventories:

- US TSCA Inventory
- EU EINECS/ELINCS/NLP
- Inventory of Existing Chemical Substances in China (IECSC)
- Japan Inventory of Existing and Notified Substances (ENCS)
- Japan ISHL Existing Substances List (ISHL)
- Korea Existing Chemicals List (KECL)
- Taiwan Chemical Substance Inventory (TCSI)
- Australian Inventory of Chemical Substances (AICS)
- Canada Domestic Substances List (DSL) and Non-Domestic Substances List (NDSL)
- New Zealand Inventory of Chemicals (NZIoC)
- Philippine Inventory of Chemicals and Chemical Substances (PICCS)
- Thailand Hazardous Substances List
- Malaysia Chemical Information Management System (CIMS)

Japanese Positive List Compliance

EVA complies with the Japanese Ministry of Health, Labor & Welfare (MHLW) Positive List system of Notification No. 370 (Substances for use in food contact materials)

cGMP

Sipchem declare that the manufacturing processes are compliant with the general principles of Current Good Manufacturing Practice. In particular, Sipchem has implemented procedures covering the following elements of GMP:

- Quality Assurance Systems and policies.
- Management Leadership and dedicated Resources.
- Documentation, Labelling and classifications.
- Raw material specifications and acceptance.
- Contamination prevention.
- Management of Change.
- Dedicated Storage, Packaging, Warehousing and Transportation.
- Quality Control and specifications for finished products.
- Compliant handling, product recall, and incident management.
- Regular internal and supplier audits.

Moreover, Sipchem is certified for the following international standards: *Website Link*

1) Quality Management System (ISO 9001:2015)
2) Occupational Health and Safety Management System (ISO 45001:2018)
3) Environmental Management System (ISO 14001)
4) Responsible Care (RC 14001)
5) Information Security Management System (ISO/IEC 27001:2013)
6) Energy Management System (ISO 50001:2018)
7) Asset Management System (ISO 55001:2014)

Swiss Ordinance (SR 817.023. 21)

EVA product complies with the regulation made by Swiss Federal Department of Home Affairs (FDHA) where it is safe for the use of all applications related to printing inks for non-food contact surfaces of food contact materials.

Antioxidant

Irganox 1076
CAS 2082-79-3
Supplier Name (BASF)
Function (To protect and maintain polymers properties during the process)

PFAS

PFAS (Perfluoroalkyl and Polyfluoroalkyl) and all its types including PFOA (perfluorooctanoic acid) and PFOS (perfluorooctanoic sulfonic acid) are not intentionally added to the process of EVA product.

Absence of Substances and Chemicals

None of the following substances are used as additives or raw materials in the manufacture of EVA. However, since we do not systematically perform specific tests to verify the absence of these substances, we cannot guarantee that there is no trace amount of these substances, as impurity or otherwise, in EVA.

- Acrylamide.
- Alkylphenol Ethoxylates (APEOs).
- Allergens (as defined in Regulation (EU) No 1169/2011, as amended).
- Aromatic amines.
- Asbestos.
- Azodicarbonamide or semi-carbazide compounds.
- Benzophenone, hydroxybenzophenone and 4-methyl benzophenone.
- Biocides.
- Bisphenol-A (BPA), Bisphenol-F (BPF) and Bisphenol-S (BPS).
- Brominated flame retardants.
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC).
- Chlorinated Paraffins.
- Conflict minerals:
- Columbite-tantalite (Coltan, Niobium, Tantalum).
- Cassiterite (Tin).
- Wolframite (Tungsten).
- Gold.
- Decabromodiphenylether (decaBDE).
- 2-Ethylhexanoic Acid (2-EHA).
- Di(ethylhexyl) adipate (DEHA) and di(ethylhexyl) maleate (DEHM).
- Dimethyl Fumarate (DMF).
- Dioxins and furans.
- Endocrine Disruptors listed in the Japanese authority list "Strategic Programs on Environmental, Endocrine Disruptors '98 (SPEED '98) - Table-3: Chemicals Suspected of Having Endocrine Disrupting Effects".

- Epoxy derivatives:
- BADGE [2,2-bis(4-hydroxyphenyl) propane bis(2,3-epoxypropyl) ether],
- BFDGE [bis(hydroxyphenyl)methane bis(2,3-epoxypropyl) ether],
- NOGE [novolac glycidyl ether] as defined in Directive 2002/16/EC amended by 2004/13/EC, repealed by the Regulation 1895/2005/EC.
- Epoxidised Soya Bean Oil (ESBO).
- Formaldehyde (formol).
- (Heavy) metals: Antimony, Arsenic, Beryllium, Cadmium, Cobalt, Copper, Hexavalent Chromium, Lead, Mercury, Nickel, Selenium, Titanium.
- Isopropylthioxanthone (ITX).
- Latexes and elastomers.
- Melamine and cyanuric acid.
- Mercapto mix.
- N-ethyl-o,p-toluolsulfonamide (NETSA) (CAS nb 1077-66-1).
- N-ethyl-p-toluenesulphonamide (NE-PTSA) (CAS nb 80-39-7).
- Nonylphenol and its derivatives including Tris(nonylphenyl) Phosphite (TNPP).
- Nanomaterials.
- Organo-tin compounds.
- Pentabromodiphenyl ether, octabromodiphenyl ether.
- Perfluorinated compounds (PFC), Perfluorinated tenside (PFT), Perfluorooctanoic acid (PFOA) & Perfluorooctane sulfonate (PFOS) listed in Directive 2006/122/EC.
- Poly (aromatic hydrocarbons) according to US Environmental Protection Agency Method 610 (EPA 610).
- Polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs), polybrominated terphenyls (PBTs).
- Polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs), polychlorinated naphthalenes (PCNs).
- Polycyclic Aromatic Hydrocarbons (PAH).
- Recycled products as defined by Regulation (EC) 282/2008.
- Short-chain chlorinated paraffins.
- Silicone.
- Tert-butyl-4-hydroxyanisole (BHA) and 2,6-di-tert-butyl-p-cresol (BHT).
- Thiuram mix.
- Titanium Acetyl Acetone (TAA).
- Triclosan (2,4,4'-trichloro-2'-hydroxydiphenyl ether) (CAS no. 3380-34-5).
- Vinyl chloride monomer (VCM) and its polymers or copolymers (PVC, PVDC, ...).

- 2,4-Pentanedione
- Antthraquinone
- Benzene
- Chlorobenzenes
- DEAB (4,4'-Bis(diethylamino)benzophenone)
- Ethylbenzene
- Ethyleneimine (=aziridine)
- Glycol ethers of E-list and their acetates and beta-isomers of glycol ethers of P-list and their acetates
- Hydroquinone
- Linear Alkylbenzenes (defined as benzene with a linear alkyl C10-13 chain)
- Rhodamine-based pigments
- Sulfonamide type plasticisers (e.g. NETSA)
- Toluene
- 1 – ethylpyrrolidin-2-one (NEP)
- Azo colorants
- 4-methylbenzophenone
- Chlorine compounds
- (MOSH & MOAH) / (POSH & PAO)
- Hexadecyltrimethoxysilane
- Pentachlorophenol
- Phenol, isopropylated phosphate (3:1) (PIP (3:1))
- 2,4,6-Tris(tert-butyl) phenol (2,4,6-TTBP)
- Hexachlorobutadiene (HCBD)
- Pentachlorothiophenol (PCTP)
- Titanium Dioxide.
- Vanadium.
- Bromine.
- Chlorine.
- Fluorine.
- Iodine.
- Dibutyltin dilaurate (DBTDL)
- Epoxy silanes
- Mineral oil aromatic hydrocarbons
- Mineral oil not listed in 10/2011
- Neopentyl Glycol (NPG)

- Phthalates as technical support agent
- Propoxylated bisphenol
- Tin based catalyst
- Processing aids and or Teflon waxes

RESINEX
Moerenstraat 85A
2370 Arendonk
Belgium

Dear Customer,

This reply refers to:

- Substances of Very High Concern listed in Annex XIV of Regulation (EC) n. 1907/2006 as amended
- Substances of Very High Concern listed in the Official Candidate List of ECHA (Vers. 17th January 2023)

In relation to the above, Dow informs you that none of these substances is intentionally added or present at or above the reporting threshold limits in the following products:

DOW™ LDPE 410 E
DOWLEX™ NG 5056G Polyethylene Resin
AFFINITY™ PL 1880G Polyolefin Plastomer
ELVAX™ 3175LGA Ethylene Vinyl Acetate Copolymer

Dow kindly reminds you that for information on the components of our products and their concentration, you can refer to the Safety Data Sheet (SDS). Any Carcinogenic, Mutagenic and Reprotoxic (Category 1A and 1B), Persistent Bioaccumulable and Toxic (PBT) and Very Persistent and Very Bioaccumulative (vPvB) constituent at or above 0,1% (by weight) or lower reporting threshold will appear in Section 3 of the SDS as required. If you are not sure that you are in possession of the latest version of a European Safety Data Sheet for the product(s) of interest to you, please contact the Dow Customer Information Group to request it.
Please note that it is your responsibility to abide by any clause of this, or other regulations, that may apply to the specific use you make of our product.

Concerning the presence of substances listed in REACH Annex XVII (1907/2006/EC and subsequent related amendments) in the products:

DOW ™LDPE 410 E
DOWLEX™ NG 5056G Polyethylene Resin
AFFINITY™ PL 1880G Polyolefin Plastomer
ELVAX™ 3175LGA Ethylene Vinyl Acetate Copolymer

We advise as follows.

Where any of the substances disclosed in the composition section of the product's European Safety

Data Sheets (EU SDSs) are subject to restrictions in the framework of REACH (i.e. listed in Annex XVII), these substances will be indicated in section 15 – Regulatory Information – of the product's EU SDSs in a sub-section dedicated to restrictions.

For each impacted substance, its identity will be disclosed, along with numbers of all REACH Annex XVII restrictions it is subject to.

Please note that in this sub-section of the EU SDSs the actual text of the restriction(s) from Annex XVII will not be disclosed. Therefore, customers are strongly advised to consider the information provided in the EU SDSs as well as the specific conditions of restriction(s) as laid down in REACH Annex XVII entries in order to determine any resulting impact on their end use application. European format Safety Data Sheets, if available, can be obtained from https://www.dow.com/en-us/support/sds-finder.html

Where no information on REACH restrictions is provided in Section 15 of the product's EU SDSs, this means the product does not contain substances subject to Annex XVII restrictions in concentrations equal to or greater than the concentrations that require disclosure of such substances in the EU SDS composition section pursuant to REACH Annex II.

Please note that it is generally the responsibility of the customer/end-user to confirm compliance of Dow products with the end use related restrictions in Annex XVII.

As of the date of this document, Dow (*) hereby confirms that the following product manufactured at one of our EU based plants or purchased from a European Dow legal entity is in compliance with the registration requirements of Regulation (EC) n. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals (REACH):

DOW™ LDPE 410 E
DOWLEX™ NG 5056G Polyethylene Resin
AFFINITY™ PL 1880G Polyolefin Plastomer
ELVAX™ 3175LGA Ethylene Vinyl Acetate Copolymer

Therefore, Dow confirms that all the REACH relevant substances contained in the above product have been registered in accordance with the REACH Registration requirements, either by Dow or Dow's upstream suppliers, or are exempt from Registration and you can be considered as a Downstream User under REACH.

Should you need additional information, please do not hesitate to contact us.

Dow Customer Information Group
Tel: +31 115 67 2626
Fax: +31 115 67 4704
www.dow.com/assistance/dowcig.htm

Candidate List: https://echa.europa.eu/candidate-list-table | Authorization List: https://echa.europa.eu/authorisation-list

RESINEX
Moerenstraat 85A
2370 Arendonk
Belgium

Dear Customer,

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- Substances of Very High Concern listed in Annex XIV of Regulation (EC) n. 1907/2006 as amended
- Substances of Very High Concern listed in the Official Candidate List of ECHA (Vers. 17th January 2023)

In relation to the above, Dow informs you that none of these substances is intentionally added or present at or above the reporting threshold limits in the following product:

DOW™ LDPE 780E

Dow kindly reminds you that for information on the components of our products and their concentration, you can refer to the Safety Data Sheet (SDS). Any Carcinogenic, Mutagenic and Reprotoxic (Category 1A and 1B), Persistent Bioaccumulable and Toxic (PBT) and Very Persistent and Very Bioaccumulative (vPvB) constituent at or above 0,1% (by weight) or lower reporting threshold will appear in Section 3 of the SDS as required. If you are not sure that you are in possession of the latest version of a European Safety Data Sheet for the product(s) of interest to you, please contact the Dow Customer Information Group to request it.
Please note that it is your responsibility to abide by any clause of this, or other regulations, that may apply to the specific use you make of our product.

Concerning the presence of substances listed in REACH Annex XVII (1907/2006/EC and subsequent related amendments) in the product:

DOW™ LDPE 780E

We advise as follows.
Where any of the substances disclosed in the composition section of the product's European Safety Data Sheets (EU SDSs) are subject to restrictions in the framework of REACH (i.e. listed in Annex XVII), these substances will be indicated in section 15 – Regulatory Information – of the product's EU SDSs in a sub-section dedicated to restrictions.

For each impacted substance, its identity will be disclosed, along with numbers of all REACH Annex XVII restrictions it is subject to.

Please note that in this sub-section of the EU SDSs the actual text of the restriction(s) from Annex XVII

will not be disclosed. Therefore, customers are strongly advised to consider the information provided in the EU SDSs as well as the specific conditions of restriction(s) as laid down in REACH Annex XVII entries in order to determine any resulting impact on their end use application. European format Safety Data Sheets, if available, can be obtained from https://www.dow.com/en-us/support/sds-finder.html

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DOW™ LDPE 780E

Therefore, Dow confirms that all the REACH relevant substances contained in the above product have been registered in accordance with the REACH Registration requirements, either by Dow or Dow's upstream suppliers, or are exempt from Registration and you can be considered as a Downstream User under REACH.

Should you need additional information, please do not hesitate to contact us.

Dow Customer Information Group
Tel: +31 115 67 2626
Fax: +31 115 67 4704
www.dow.com/assistance/dowcig.htm

Candidate List: https://echa.europa.eu/candidate-list-table | Authorization List: https://echa.europa.eu/authorisation-list

Approval Number: 1705512
Test Report: MAT/LAB 265M

Water Regulations Advisory Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

25th May 2017

DuPont (UK) Ltd
4th Floor, Kings Court,
London Road,
Stevenage,
Hertfordshire
SG1 2NG

WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

NYLON - MATERIAL ONLY. **5180**

Zytel® 70G30HSLR BK099. Black coloured, injection moulded nylon. For use with water up to 85°C.

APPROVAL NUMBER: 1705512
APPROVAL HOLDER: DUPONT (UK) LTD

The Scheme reserves the right to review approval.
Approval 1705512 is valid between May 2017 and May 2022

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, “Materials which have passed full tests of effect on water quality”.

The Directory may be found at: www.wras.co.uk/directory

Yours faithfully

Jason Furnival
Approvals & Enquiries Manager
Water Regulations Advisory Scheme

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. **Approval of this material does not signify the approval of its mechanical or physical properties for any use.**

Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that; 'the material as listed, having passed the tests of effect on water quality, is suitable for use in contact with wholesome water'

This may be abbreviated to 'Water Regulations Advisory Scheme - Approved Material' or 'WRAS Approved Material'.

The scope of an Approval does not extend to rebranded materials unless otherwise agreed by the Scheme.

Use of the WRAS Approved Material Logo

Approval holders may use the WRAS Approved Material logo and make reference to any approval issued by WRAS Ltd. in respect of a particular material or range of materials provided the approval is, and remains valid.

Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

WRAS will write to you 1 year before the approval expires asking whether you would like to renew it. Please complete the relevant section of the MA3 application form which will be included with the letter and return to WRAS (via e-mail or post).

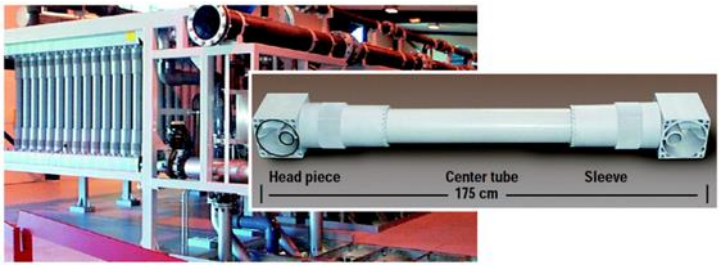
Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

Updated: March 2015

DuPont Performance Polymers

DuPont Performance Polymers: Potable Water Regulatory Information

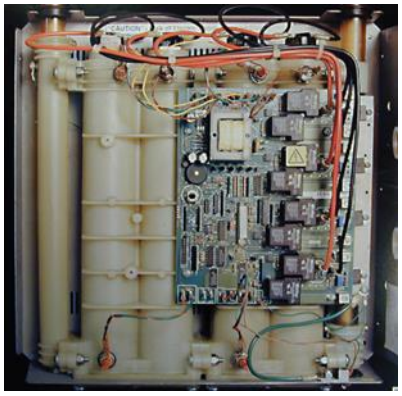
Performance polymers for potable water applications:



DuPont has been providing resins for use in a variety of potable water applications. Depending on the industry needs, resins are available from our Zytel® PA and PPA polyamide, Crastin® PBT, Rynite® PET and Hytrel® TPC-ET polyester and Delrin® acetal product lines.

These resins meet the requirements of various regulatory standards including Food Contact compliance (FG grades) as well as suitability for contact with potable water according to NSF 61, WRAS, ACS, KTW and W270 standards. The table on the next page provides the detailed information on the regulatory status for the specific resins.

These resins have been used in product applications including pumps, filtration components, sanitary, in-line heaters, fixtures and tanks. Please contact your DuPont representative for further information.



Agency/Standard	**WRAS**	**ACS**	**KTW**	**W270**	**NSF61**
Country	**UK**	**France**	**Germany**	**Germany**	**US**
Regulatory process for customer PARTS:					
Resin Approval Required for Parts Approval	No	No	No	No	No
DuPont can disclose Resin Composition to Agency to Support Customer Parts submittal	Yes	Yes	Yes	Yes	Yes
Regulatory process for RESINS: DuPont Submission of molded plates/plaques to the Agencies for testing					
Food Contact Suitability Required:					
EU: 10/2011	No	Yes	Yes	Yes	N/A
US: FDA	N/A	N/A	N/A	N/A	No
Approval duration	5Yr	5Yr	5Yr	5Yr	1Yr
Resin listing in the public domain	Yes	yes (updated every 2Y)	No	No	Yes
Agency Link	http://www.wras.co.uk/Directory/	www.sante.gouv.fr	N/A	N/A	http://info.nsf.org/Certified/PwsComponents/Listings.asp?Company=14800&Standard=061

The miracles of science™

DuPont Performance Polymers: Regulatory Information for Potable Water

Polymer	Glass Fiber	Family/Grade	Color	FDA	EU10/2011	NSF61 (US)		WRAS (UK)		ACS (France)	DVGW (Germany)	
	%					23°C	82°C	23°C	85°C	23-85 °C	KTW 23°C	W270
PBT		Crastin® S600F10	Natural					■				
PBT		Crastin®FGS600F10	Natural	■	■			■		■	■	
PBT	30	Crastin® SK605	Natural					■	■			
POM		Delrin® FG100	Natural	■	■			■		■	■	■
POM		Delrin® FG150	Natural	■	■	■	■	■	■	■	■	■
POM		Delrin®FG511DP	Natural	■	■			■	■			
POM		Delrin®500P	Natural					■				
POM		Delrin®500P	BK602					■				
POM		Delrin®100P	Natural					■				
POM		Delrin®100P	BK602					■				
POM		Delrin®150	Natural			■	■					
POM	20	Delrin®570	Natural			■	■	■				
POM		Delrin®900P	Natural					■				
POM		Delrin®900P	BK602					■				
TPC-ET		Hytrel® HTR6108	Natural					■	■			
TPC-ET		Hytrel® 4068FG	Natural	■	■			■	■	■	■	
TPC-ET		Hytrel® 6359FG	Natural	■	■			■	■			
PET	30	Rynite® 530	Natural									
PET	45	Rynite® 545	Natural									
PA66		Zytel® FG42A	Natural	■	■	■	■	■	■			
PA66		Zytel® FG101L	Natural	■	■	■	■	■				
PA66	33	Zytel® FGFE5171	Natural	■	■	■	■					
PA66	30	Zytel® FG70G30HSLR	Natural	■	■			■	■	■	■	■
PA66	30	Zytel® 70G30 HSLR	BK099					■	■			
PA66	30	Zytel® FG70G30HSR2	BK309	■	■			■	■	■		
PA66	30	Zytel® FG70G30HSR3	BK309	■	■			■	■	■	■	■
PA6.12	33	Zytel® FG77G33L	Natural	■	■	■	■	■	■		■	■
PA6.12	33	FE 5448	Natural									
PPA	35	Zytel® HTN FG52G35HSLR	BK011	■	■			■	■	■	■	■
PPA	60	Zytel® HTN 53G60LRHF	BK083			■	■					

■ meets standard

For more information on DuPont Performance Polymers:

USA
DuPont Performance Polymers
Chestnut Run Plaza, 713
974 Centre Rd, P.O. Box 2915
Wilmington, Delaware, 19805
Tel: 302-999-4592
Toll free (USA) 1 800-441-0575
web-inquiries.ddf@dupont.com

SOUTH AMERICA
DuPont do Brasil S.A.
Als Itapecuru, 506 Alphaville
06454-080 Barueri-Sao Paulo
Tel: +5511 7266 8229

EUROPE/MIDDLE EAST/ AFRICA
DuPont International Operations Sárl
2, chemin du Pavillon
CH-1218 Le Grand-Saconnex/Geneva
Tel: +41 22 717 51 11

ASIA PACIFIC
DuPont China Ltd.
26/F, Tomer 6, The Gateway
Tsimshatsui, Kowloon, Hong Kong
Tel: +852 2734 5345
Fax: +852 2722 7446

GNE-A11118-00-A0713 (10/13)

To find out more, visit plastics.dupont.com or contact the nearest DuPont location.

DUPONT®

The miracles of science™

CERTIFICATE

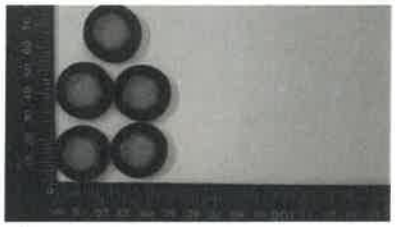
POLSKIE CENTRUM BADAŃ I CERTYFIKACJI S.A.
POLISH CENTRE FOR TESTING AND CERTIFICATION inc.
ul. Kłobucka 23A, 02-699 Warszawa
Oddział Badań i Certyfikacji w Pile
Testing and Certification Branch Office in Piła
Laboratorium Nawozów i Wyrobów Chemicznych
Fertilizer and Chemical Product Laboratory
ul. J. J. Śniadeckich 11, 64 – 920 Piła
tel.: 672138700, 672138200; fax: 672138384; www.pcbc.gov.pl

AB 006

Piła, dnia / day 10.09.2019 r. / yr.

SPRAWOZDANIE Z BADAŃ NR / TEST REPORT NO. BP.PL/408/19/JF

1. Nr zlecenia / Job no.: **397/175/19**
2. Opis próbki / Sample description: **Uszczelka gumowa z filtrem z siatki stalowej nierdzewnej / Rubber gasked with stainless steel mesh filter**

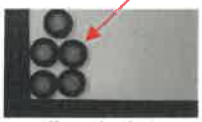
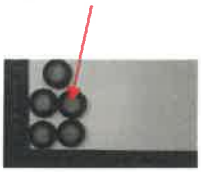


2.1 Opakowanie / Package: **worek foliowy / plastic bag**
2.2 Postać próbki / Form of sample: **komponent / component**
2.3 Próbkę pobrał / Sample collected by: **zleceniodawca / customer**
2.4 Stan próbki w czasie przyjęcia / Condition of the sample at the time of delivery: **bez zastrzeżeń / unreservedly**
3. Zleceniodawca / Customer: **FELIKS JAŁOWSKI „HYDROSTOP ELECTRONIC" ul. Szamarzewskiego 78/82 60-569 Poznań**
4. Cel badania / Verification requested: **Ocena zgodności z Dyrektywą 2011/65/UE (RoHS) / With reference to Directive 2011/65/EU (RoHS)**
5. Data dostarczenia próbki / Sample received date: **26.08.2019**
6. Data rozpoczęcia / zakończenia badania / Testing period: **26.08.2019 / 09.09.2019**
7. Metody badawcze / Testing Methods:

Lp. / No.	Badana cecha / Test item	Metoda badawcza / pomiarowa / Test method / measurement	Dokument odniesienia / Reference document	Status metody(*) / Status of method(*)
7.1	**Badanie przesiewowe / Screening**			
7.1.1	Zawartość ołowiu (Pb) / Lead contents (Pb)	Fluorescencyjna spektrometria rentgenowska z dyspersją energii (ED - XFR) / Energy dispersive X-ray fluorescence spectrometry	PN-EN 62321-3-1:2014	A
7.1.2	Zawartość kadmu (Cd) / Cadmium contents (Cd)			
7.1.3	Zawartość rtęci (Hg) / Mercury contents (Hg)			
7.1.4	Zawartość chromu (Cr) / Chromium contents (Cr)			
7.1.5	Zawartość bromu (Br) / Bromine contents (Br)			
7.2.	**Badanie chemiczne**			
7.2.1	Obecność chromu sześciowartościowego (Cr(VI)) / Hexavalent chromium presence (Cr(VI))	Wizualna / spektrofotometryczna (UV -Vis) / Visual / spectrophotometric (UV - Vis)	PN-EN 62321:2009 Załącznik B / Annex B	A
7.2.2	Zawartość ftalanów: ftalan di(2-etyloheksylu) (DEHP), ftalan benzylu butylu (BBP), ftalan dibutylu (DBP), ftalan	Chromatografia gazowa z detekcją spektrometrią mas (GC – MS) / Gas chromatography – mass spectrometry	PN-EN 62321-8:2017	NA

	diizobutylu (DIBP) / Phthalate contents: bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), diisobutyl phthalate (DIBP)	(GC - MS)		

8. Wyniki badania / Test results:

Lp. / No.	Opis próbki / zdjęcie / Description of sample / photo	Jednostka[1] / Unit[1]	Badana cecha – badanie przesiewowe[2] / Test item – screening[2]	Wynik badania przesiewowego[2] / Screening result[2]	Niepewność rozszerzona[**] / Expanded uncertainty[**]	Ocena wyniku badania przesiewowego[2] / Evaluation of screening result[2]	Badana cecha – badanie chemiczne[3] / Test item – chemical test[3]	Wynik badania chemicznego[3] / Chemical test result[3]	Niepewność rozszerzona[**] / Expanded uncertainty[**]	Stwierdzenie zgodności / niezgodności z wymaganiami RoHS[***] / Conclusion of compliance / non-compliance with the requirements of RoHS[***]
1.1	 polimer / polymer	mg/kg	Pb	< 50,0	-	BL	Pb	-	-	zgodny / comply
1.2		mg/kg	Cd	< 50,0	-	BL	Cd	-	-	zgodny / comply
1.3		mg/kg	Hg	< 50,0	-	BL	Hg	-	-	zgodny / comply
1.4		mg/kg	Cr	476	± 143	BL	Cr(VI)	-	-	zgodny / comply
1.5		mg/kg	Br	< 50,0	-	BL	PBB	-	-	zgodny / comply
							PBDE	-	-	
1.6		mg/kg	-	-	-	-	DEHP	< 100,0	-	zgodny / comply
							BBP	< 100,0	-	
							DBP	< 100,0	-	
							DIBP	< 100,0	-	
2.1	 metal / metal	mg/kg	Pb	379	± 114	BL	Pb	-	-	zgodny / comply
2.2		mg/kg	Cd	67,5	± 20	BL	Cd	-	-	zgodny / comply
2.3		mg/kg	Hg	< 50,0	-	BL	Hg	-	-	zgodny / comply
2.4		mg/kg	Cr	>1300	-	IN	Cr(VI)	NEG	-	zgodny / comply
2.5		mg/kg	Br	-	-	-	PBB	-	-	-
							PBDE	-	-	
2.6		mg/kg	-	-	-	-	DEHP	-	-	-
							BBP	-	-	
							DBP	-	-	
							DIBP	-	-	

znak "-" oznacza, że badanie nie dotyczy danej próbki / the "-" sign means that the test does not apply to a given sample

9. Informacje dodatkowe / Additional information:

9.1 Uwagi / Remarks:

[1] mg/kg = 0,0001 %

[2] Wynik badania przesiewowego metodą fluorescencyjnej spektrometrii rentgenowskiej z dyspersją energii (ED - XFR) odnosi się do całkowitej zawartości chromu (Cr) i całkowitej zawartości bromu (Br) - wg Dyrektywy 2011/65/UE (RoHS) ograniczeniom podlega zawartość chromu sześciowartościowego (Cr(VI)) oraz zawartość polibromowanych bifenyli (PBBs) i polibromowanych eterów difenylowych (PBDEs). Oznaczenie całkowitej zawartości chromu (Cr) i całkowitej zawartości bromu (Br) umożliwia stwierdzenie zgodności z wymaganiami RoHS lub zakwalifikowanie próbki do dalszych badań chemicznych dotyczących substancji podlegających ograniczeniom: Cr(VI), PBBs, PBDEs. / Screening test by X-ray fluorescence spectrometry energy dispersive (ED - XFR) refers to the total contents of chromium (Cr) and total bromine (Br) - according to Directive 2011/65/EU (RoHS) restriction is subject to the contents of hexavalent chromium (Cr(VI)) and the contents of polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs). Determination of the total contents of chromium (Cr) and total bromine (Br) provides that compliance with the requirements of RoHS and qualify samples for further chemical tests on substances subject to limitation Cr(VI), PBBs, PBDEs.
Dalsze badania chemiczne są konieczne w przypadku, gdy wyniki zawartości substancji podlegających ograniczeniom wg Dyrektywy 2011/65/UE (RoHS), uzyskane za pomocą badań przesiewowych metodą fluorescencyjnej spektrometrii rentgenowskiej z dyspersją energii (ED - XFR), przekraczają poniższe wartości graniczne, określone w normie PN-EN 62321-3-1:2014 (jednostka: mg/kg) / Further chemical testing are recommended to be performed if the concentration of restricted substances according to Directive 2011/65/UE (RoHS), obtained by screening tests of energy dispersive X-ray fluorescence spectrometry method, exceeds the below warning value according to EN 62321-3-1-2014 (unit: mg/kg):

Pierwiastek / Element	Polimery / Polymers	Metale / Metals	Tworzywo zespolone / Composite material
Cd	BL ≤ (70 - 3σ) < X < (130 + 3σ) ≤ OL	BL ≤ (70 - 3σ) < X < (130 + 3σ) ≤ OL	LOD < X < (150 + 3σ) ≤ OL
Pb	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL	BL ≤ (500 - 3σ) < X < (1500 + 3σ) ≤ OL
Hg	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL	BL ≤ (700 - 3σ) < X < (1300 + 3σ) ≤ OL	BL ≤ (500 - 3σ) < X < (1500 + 3σ) ≤ OL
Br	BL ≤ (300 - 3σ) < X	-	BL ≤ (500 - 3σ) < X
Cr	BL ≤ (700 - 3σ) < X	BL ≤ (700 - 3σ) < X	BL ≤ (250 - 3σ) < X

- Oznaczenie / Indication BL – PONIŻEJ GRANICY / BELOW LIMIT - ustalone na 30 % (50 % dla tworzyw zespolonych) poniżej dopuszczalnego poziomu / determination will be set at 30 % (50 % for composite materials) less than the limit;
- Oznaczenie / Indication OL – POWYŻEJ GRANICY / OVER LIMIT - ustalone na 30 % (50 % dla tworzyw zespolonych) powyżej dopuszczalnego poziomu / determination will be set at 30 % (50 % for composite materials) greater than the limit;
- Symbol „X" oznacza obszar, gdzie dalsze badania są niezbędne / marks the region where further investigation is necessary;
- Symbol „σ" oznacza powtarzalność analizatora na poziomie działania / expresses the repeatabitity of the analyser at the action level;
- Oznaczenie / Indication LOD – GRANICA OZNACZALNOŚCI / LIMIT OF DETECTION;
- Oznaczenie / Indication IN – WYNIK NIEJEDNOZNACZNY / INCONCLUSIVE;

Na wyniki badań przesiewowych metodą fluorescencyjnej spektrometrii rentgenowskiej z dyspersją energii (ED - XFR) ma wpływ wiele czynników, m. in. wielkość próbki, struktura powierzchni, grubość, parametry aparatu i efekty matrycowe (np. dla materiałów z plastików, gumy, metalu, szkła, ceramiki itd.). / The results shown in this XRF report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e. g. plastic, rubber, metal, glass, ceramic etc.).

(3) Badania chemiczne dla próbek zakwalifikowanych do dalszych analiz na podstawie wyniku badania przesiewowego. Zgodnie z normą PN-EN 62321:2009 Załącznik B wynik oznaczeń zawartości chromu sześciowartościowego (Cr(VI)) dla próbek metali podawany jest jako POZYTYWNY (POZ) lub NEGATYWNY (NEG). Negatywny oznacza nieobecność Cr(VI), pozytywny oznacza obecność Cr(VI) / Chemical tests for the samples selected for further analysis based on the result of the screening. According to PN-EN 62321:2009 Annex B result of determinations hexavalent chromium (Cr(VI)) for metal samples is given as POSITIVE (POS) or NEGATIVE (NEG). Negative indicate the absence of Cr(VI), positive indicate the presence of Cr(VI).

9.2 Substancje objęte ograniczeniem i maksymalne wartości ich stężenia dopuszczalne wagowo w materiałach jednorodnych według Dyrektywy 2011/65/UE (RoHS) / Restricted substances and maximum concentration values tolerated by weight in homogeneous materials according to Directive 2011/65/EU (RoHS):

Lp. / No.	Substancje podlegające ograniczeniom / Restricted substances	Poziom dopuszczalny / Limit
1.	Ołów / Lead (Pb)	0,1 % (1000 mg/kg, ppm)
2.	Kadm / Cadmium (Cd)	0,01 % (100 mg/kg, ppm)
3.	Rtęć / Mercury (Hg)	0,1 % (1000 mg/kg, ppm)
4.	Chrom sześciowartościowy / Hexavalent chromium (Cr(VI))	0,1 % (1000 mg/kg, ppm)
5.	Polibromowane bifenyle / Polybrominated biphenyls (PBBs)	0,1 % (1000 mg/kg, ppm)
6.	Polibromowane etery difenylowe / Polybrominated diphenyl ethers (PBDEs)	0,1 % (1000 mg/kg, ppm)
7.	Ftalany: ftalan di(2-etyloheksylu) (DEHP), ftalan benzylu butylu (BBP), ftalan dibutylu (DBP), ftalan diizobutylu (DIBP) / Phthalate contents: bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), diisobutyl phthalate (DIBP)	0,1 % (1000 mg/kg, ppm)

10. **Wyniki badań dla próbki są zgodne z wymaganiami określonymi w RoHS / Test results for the sample are consistent with the requirements of the RoHS**

Wyniki odnoszą się wyłącznie do próbki badanej. Sprawozdanie z badań bez pisemnej zgody laboratorium nie powinno być powielane inaczej, jak tylko w całości. / The results refer only to the test sample. The test report without the written permission of the laboratory should not be reproduced otherwise than in its entirety.

(*) Status metody: A – metoda objęta zakresem akredytacji nr AB 006; NA - metoda nieakredytowana. / Status of method: A - method within the scope of accreditation no. AB 006; NA - non - accredited method.

(**) Podana niepewność rozszerzona wynika z niepewności standardowej pomnożonej przez współczynnik rozszerzenia k=2, który dla rozkładu normalnego zapewnia poziom ufności w przybliżeniu 95 %. Niepewność została podana dla wyników metod akredytowanych powyżej dolnego zakresu akredytacji. / The reported expanded uncertainty stems from a standard uncertainty multiplied by a coverage factor k=2, which for a normal distribution provides a level of confidence of approximately 95 %. Uncertainty was given for the results of accredited methods above the lower scope of accreditation.

(***) Zgodność / niezgodność z wymaganiami Dyrektywy 2011/65/UE (RoHS) została stwierdzona na podstawie wyników badań uzyskanych za pomocą metod określonych w punkcie 7 sprawozdania. / Compliance / non-compliance with the

requirements of Directive 2011/65/EU (RoHS) has been established on the basis of the test results obtained by the methods described in section 7 of this report.

Autoryzował / Authorised by:

Kierownik Laboratorium
dr Jacek Finster

Koniec sprawozdania / End of report

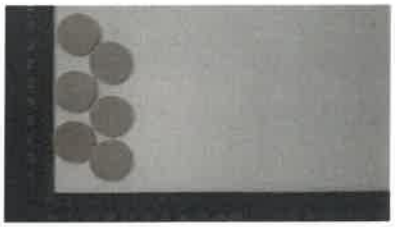
POLSKIE CENTRUM BADAŃ I CERTYFIKACJI S.A.
POLISH CENTRE FOR TESTING AND CERTIFICATION inc.
ul. Kłobucka 23A, 02-699 Warszawa
Oddział Badań i Certyfikacji w Pile
Testing and Certification Branch Office in Piła
Laboratorium Nawozów i Wyrobów Chemicznych
Fertilizer and Chemical Product Laboratory
ul. J. J. Śniadeckich 11, 64 – 920 Piła
tel.: 672138700, 672138200; fax: 672138384; www.pcbc.gov.pl

AB 006

Piła, dnia / day 10.09.2019 r. / yr.

SPRAWOZDANIE Z BADAŃ NR / TEST REPORT NO. BP.PL/407/19/JF

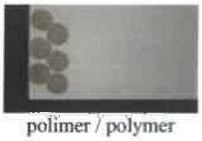
1. Nr zlecenia / Job no.: **396/175/19**
2. Opis próbki / Sample description: **Membrana gumowa / Rubber membrane**



2.1 Opakowanie / Package: **worek foliowy / plastic bag**
2.2 Postać próbki / Form of sample: **komponent / component**
2.3 Próbkę pobrał / Sample collected by: **zleceniodawca / customer**
2.4 Stan próbki w czasie przyjęcia / Condition of the sample at the time of delivery: **bez zastrzeżeń / unreservedly**
3. Zleceniodawca / Customer: **FELIKS JAŁOWSKI „HYDROSTOP ELECTRONIC" ul. Szamarzewskiego 78/82 60-569 Poznań**
4. Cel badania / Verification requested: **Ocena zgodności z Dyrektywą 2011/65/UE (RoHS) / With reference to Directive 2011/65/EU (RoHS)**
5. Data dostarczenia próbki / Sample received date: **26.08.2019**
6. Data rozpoczęcia / zakończenia badania / Testing period: **26.08.2019 / 09.09.2019**
7. Metody badawcze / Testing Methods:

Lp. / No.	Badana cecha / Test item	Metoda badawcza / pomiarowa / Test method / measurement	Dokument odniesienia / Reference document	Status metody(*) / Status of method(*)
7.1	**Badanie przesiewowe / Screening**			
7.1.1	Zawartość ołowiu (Pb) / Lead contents (Pb)	Fluorescencyjna spektrometria rentgenowska z dyspersją energii (ED - XFR) / Energy dispersive X-ray fluorescence spectrometry	PN-EN 62321-3-1:2014	A
7.1.2	Zawartość kadmu (Cd) / Cadmium contents (Cd)			
7.1.3	Zawartość rtęci (Hg) / Mercury contents (Hg)			
7.1.4	Zawartość chromu (Cr) / Chromium contents (Cr)			
7.1.5	Zawartość bromu (Br) / Bromine contents (Br)			
7.2.	**Badanie chemiczne**			
7.2.1	Zawartość ftalanów: ftalan di(2-etyloheksylu) (DEHP), ftalan benzylu butylu (BBP), ftalan dibutylu (DBP), ftalan diizobutylu (DIBP) / Phthalate contents: bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), diisobutyl phthalate (DIBP)	Chromatografia gazowa z detekcją spektrometrią mas (GC – MS) / Gas chromatography – mass spectrometry (GC - MS)	PN-EN 62321-8:2017	NA

8. Wyniki badania / Test results:

Lp. / No.	Opis próbki / zdjęcie / Description of sample / photo	Jednostka[1] / Unit[1]	Badana cecha – badanie przesiewowe[2] / Test item – screening[2]	Wynik badania przesiewowego[2] / Screening result[2]	Niepewność rozszerzona[**] / Expanded uncertainty[**]	Ocena wyniku badania przesiewowego[2]/ Evaluation of screening result[2]	Badana cecha – badanie chemiczne[3] / Test item – chemical test[3]	Wynik badania chemicznego[3] / Chemical test result[3]	Niepewność rozszerzona[**] / Expanded uncertainty[**]	Stwierdzenie zgodności / niezgodności z wymaganiami RoHS[***] / Conclusion of compliance / non-compliance with the requirements of RoHS[***]
1.1	 polimer / polymer	mg/kg	Pb	**< 50,0**	-	BL	Pb	-	-	zgodny / comply
1.2		mg/kg	Cd	**< 50,0**	-	BL	Cd	-	-	zgodny / comply
1.3		mg/kg	Hg	**< 50,0**	-	BL	Hg	-	-	zgodny / comply
1.4		mg/kg	Cr	**< 50,0**	-	BL	Cr(VI)	-	-	zgodny / comply
1.5		mg/kg	Br	**< 50,0**	-	BL	PBB	-	-	zgodny / comply
							PBDE	-	-	
1.6		mg/kg	-	-	-	-	DEHP	**< 100,0**	-	zgodny / comply
							BBP	**< 100,0**	-	
							DBP	**< 100,0**	-	
							DIBP	**< 100,0**	-	

znak "-" oznacza, że badanie nie dotyczy danej próbki / the "-" sign means that the test does not apply to a given sample

9. Informacje dodatkowe / Additional information:

9.1 Uwagi / Remarks:

[1] mg/kg = 0,0001 %

[2] Wynik badania przesiewowego metodą fluorescencyjnej spektrometrii rentgenowskiej z dyspersją energii (ED - XFR) odnosi się do całkowitej zawartości chromu (Cr) i całkowitej zawartości bromu (Br) - wg Dyrektywy 2011/65/UE (RoHS) ograniczeniom podlega zawartość chromu sześciowartościowego (Cr(VI)) oraz zawartość polibromowanych bifenyli (PBBs) i polibromowanych eterów difenylowych (PBDEs). Oznaczenie całkowitej zawartości chromu (Cr) i całkowitej zawartości bromu (Br) umożliwia stwierdzenie zgodności z wymaganiami RoHS lub zakwalifikowanie próbki do dalszych badań chemicznych dotyczących substancji podlegających ograniczeniom: Cr(VI), PBBs, PBDEs. / Screening test by X-ray fluorescence spectrometry energy dispersive (ED - XFR) refers to the total contents of chromium (Cr) and total bromine (Br) - according to Directive 2011/65/EU (RoHS) restriction is subject to the contents of hexavalent chromium (Cr(VI)) and the contents of polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs). Determination of the total contents of chromium (Cr) and total bromine (Br) provides that compliance with the requirements of RoHS and qualify samples for further chemical tests on substances subject to limitation Cr(VI), PBBs, PBDEs.
Dalsze badania chemiczne są konieczne w przypadku, gdy wyniki zawartości substancji podlegających ograniczeniom wg Dyrektywy 2011/65/UE (RoHS), uzyskane za pomocą badań przesiewowych metodą fluorescencyjnej spektrometrii rentgenowskiej z dyspersją energii (ED - XFR), przekraczają poniższe wartości graniczne, określone w normie PN-EN 62321-3-1:2014 (jednostka: mg/kg) / Further chemical testing are recommended to be performed if the concentration of restricted substances according to Directive 2011/65/UE (RoHS), obtained by screening tests of energy dispersive X-ray fluorescence spectrometry method, exceeds the below warning value according to EN 62321-3-1-2014 (unit: mg/kg):

Pierwiastek / Element	Polimery / Polymers	Metale / Metals	Tworzywo zespolone / Composite material
Cd	$BL \leq (70 - 3\sigma) < X < (130 + 3\sigma) \leq OL$	$BL \leq (70 - 3\sigma) < X < (130 + 3\sigma) \leq OL$	$LOD < X < (150 + 3\sigma) \leq OL$
Pb	$BL \leq (700 - 3\sigma) < X < (1300 + 3\sigma) \leq OL$	$BL \leq (700 - 3\sigma) < X < (1300 + 3\sigma) \leq OL$	$BL \leq (500 - 3\sigma) < X < (1500 + 3\sigma) \leq OL$
Hg	$BL \leq (700 - 3\sigma) < X < (1300 + 3\sigma) \leq OL$	$BL \leq (700 - 3\sigma) < X < (1300 + 3\sigma) \leq OL$	$BL \leq (500 - 3\sigma) < X < (1500 + 3\sigma) \leq OL$
Br	$BL \leq (300 - 3\sigma) < X$	-	$BL \leq (500 - 3\sigma) < X$
Cr	$BL \leq (700 - 3\sigma) < X$	$BL \leq (700 - 3\sigma) < X$	$BL \leq (250 - 3\sigma) < X$

- Oznaczenie / Indication BL – PONIŻEJ GRANICY / BELOW LIMIT - ustalone na 30 % (50 % dla tworzyw zespolonych) poniżej dopuszczalnego poziomu / determination will be set at 30 % (50 % for composite materials) less than the limit;
- Oznaczenie / Indication OL – POWYŻEJ GRANICY / OVER LIMIT - ustalone na 30 % (50 % dla tworzyw zespolonych) powyżej dopuszczalnego poziomu / determination will be set at 30 % (50 % for composite materials) greater than the limit;
- Symbol „X" oznacza obszar, gdzie dalsze badania są niezbędne / marks the region where further investigation is necessary;
- Symbol „σ" oznacza powtarzalność analizatora na poziomie działania / expresses the repeatabitity of the analyser at the action level;
- Oznaczenie / Indication LOD – GRANICA OZNACZALNOŚCI / LIMIT OF DETECTION;
- Oznaczenie / Indication IN – WYNIK NIEJEDNOZNACZNY / INCONCLUSIVE;

Na wyniki badań przesiewowych metodą fluorescencyjnej spektrometrii rentgenowskiej z dyspersją energii (ED - XFR) ma wpływ wiele czynników, m. in. wielkość próbki, struktura powierzchni, grubość, parametry aparatu i efekty matrycowe (np. dla materiałów z plastików, gumy, metalu, szkła, ceramiki itd.). / The results shown in this XRF report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e. g. plastic, rubber, metal, glass, ceramic etc.).

(3) Badania chemiczne dla próbek zakwalifikowanych do dalszych analiz na podstawie wyniku badania przesiewowego. Zgodnie z normą PN-EN 62321:2009 Załącznik B wynik oznaczeń zawartości chromu sześciowartościowego (Cr(VI)) dla próbek metali podawany jest jako POZYTYWNY (POZ) lub NEGATYWNY (NEG). Negatywny oznacza nieobecność Cr(VI), pozytywny oznacza obecność Cr(VI) / Chemical tests for the samples selected for further analysis based on the result of the screening. According to PN-EN 62321:2009 Annex B result of determinations hexavalent chromium (Cr(VI)) for metal samples is given as POSITIVE (POS) or NEGATIVE (NEG). Negative indicate the absence of Cr(VI), positive indicate the presence of Cr(VI).

9.2 Substancje objęte ograniczeniem i maksymalne wartości ich stężenia dopuszczalne wagowo w materiałach jednorodnych według Dyrektywy 2011/65/UE (RoHS) / Restricted substances and maximum concentration values tolerated by weight in homogeneous materials according to Directive 2011/65/EU (RoHS):

Lp. / No.	Substancje podlegające ograniczeniom / Restricted substances	Poziom dopuszczalny / Limit
1.	Ołów / Lead (Pb)	0,1 % (1000 mg/kg, ppm)
2.	Kadm / Cadmium (Cd)	0,01 % (100 mg/kg, ppm)
3.	Rtęć / Mercury (Hg)	0,1 % (1000 mg/kg, ppm)
4.	Chrom sześciowartościowy / Hexavalent chromium (Cr(VI))	0,1 % (1000 mg/kg, ppm)
5.	Polibromowane bifenyle / Polybrominated biphenyls (PBBs)	0,1 % (1000 mg/kg, ppm)
6.	Polibromowane etery difenylowe / Polybrominated diphenyl ethers (PBDEs)	0,1 % (1000 mg/kg, ppm)
7.	Ftalany: ftalan di(2-etyloheksylu) (DEHP), ftalan benzylu butylu (BBP), ftalan dibutylu (DBP), ftalan diizobutylu (DIBP) / Phthalate contents: bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), diisobutyl phthalate (DIBP)	0,1 % (1000 mg/kg, ppm)

10. **Wyniki badań dla próbki są zgodne z wymaganiami określonymi w RoHS / Test results for the sample are consistent with the requirements of the RoHS**

Wyniki odnoszą się wyłącznie do próbki badanej. Sprawozdanie z badań bez pisemnej zgody laboratorium nie powinno być powielane inaczej, jak tylko w całości. / The results refer only to the test sample. The test report without the written permission of the laboratory should not be reproduced otherwise than in its entirety.

(*) Status metody: A – metoda objęta zakresem akredytacji nr AB 006; NA - metoda nieakredytowana. / Status of method: A - method within the scope of accreditation no. AB 006; NA - non - accredited method.

(**) Podana niepewność rozszerzona wynika z niepewności standardowej pomnożonej przez współczynnik rozszerzenia k=2, który dla rozkładu normalnego zapewnia poziom ufności w przybliżeniu 95 %. Niepewność została podana dla wyników metod akredytowanych powyżej dolnego zakresu akredytacji. / The reported expanded uncertainty stems from a standard uncertainty multiplied by a coverage factor k=2, which for a normal distribution provides a level of confidence of approximately 95 %. Uncertainty was given for the results of accredited methods above the lower scope of accreditation.

(***) Zgodność / niezgodność z wymaganiami Dyrektywy 2011/65/UE (RoHS) została stwierdzona na podstawie wyników badań uzyskanych za pomocą metod określonych w punkcie 7 sprawozdania. / Compliance / non-compliance with the requirements of Directive 2011/65/EU (RoHS) has been established on the basis of the test results obtained by the methods described in section 7 of this report.

Autoryzował / Authorised by:

Kierownik Laboratorium

dr Jacek Finster

Koniec sprawozdania / End of report

13- nut
2 - body
10 - tube (flow duct)
17 - membrane
gasket