REGULATORY INFORMATION SHEET (RIS)

Crastin® FR684NH1 NC010

THERMOPLASTIC POLYESTER RESIN

Regulatory Information Sheet

For

Crastin® FR684NH1 NC010

Material description :

Thermoplastic polyester resin

ISO 1043 identification: PBT-GF25FR(40)
ISO 11469 part marking code: >PBT-GF25FR(40)<

Content Table:

This document provides a summary of available information. In certain cases it may not respond to all questions. The amount of information requested in a number of inquiries suggests, that the intent is to establish a regulatory profile of a given material. If this is the case, not all of the required information may be relevant for the currently intended material use. We will be glad to further investigate missing information but would like to ask you to reconfirm which of the missing information is critical for your use.

Revised: 17-Jun-2022 Source: Celanese Materials Database

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Basis for Declaration

All declarations are made versus the regulatory limits. For any lower declaration limits, please contact your Celanese representative.

The compositions of our products are considered as proprietary. In specific cases disclosure can be considered provided appropriate agreements are put in place.

In general we do not routinely analyse our products for compliance with the regulations mentioned below, nor do we require our raw material suppliers to do so.
Below information is based on review of current formulation, composition, manufacturing process and information supplied by vendors.

Global Chemical Management Legislation

Chemical Inventory

All the constituents of the above product are listed for Celanese purposes, or exempted on the following Chemical Inventories (please contact your Celanese representative for information on potential restrictions, limitations or if you are directly importing the product yourself into a specific country) :

Canadian Domestics Substances List (DSL)
Inventory of Existing Chemical Substances in China (IECSC)
Japanese Existing and New Chemical Substances (ENCS)
Japanese Industrial Safety and Health Law (ISHL) Inventory
Korean Existing Chemicals Inventory (KECI)
Philippine Inventory of Chemicals & Chemical Substances (PICCS)
Taiwan Chemical Substance Inventory (TCSI)

European Economic Area (EEA) - REACH Registration Status

REACH registration is the responsibility of the importer or manufacturer of the substance.

If you have purchased the above product from Celanese in the EEA, exported the product, and intend to re-import the product, Celanese or its suppliers have completely all required registrations. No further registration obligation is expected from the importer.

If you have purchased Celanese products outside the EEA and plan to import it into EEA, please contact your Celanese representative.

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REACH SVHC

The European Chemicals Agency (ECHA) added additional substances to the Candidate List of Substances of Very High Concern (SVHC) on June 10th, 2022.
The full list can be found here: https://echa.europa.eu/candidate-list-table.

In response to your inquiry, we have reviewed our available information regarding the presence of those substances in the products you purchase. Please find the relevant information in this letter.

Please assess any legal obligations you may have to communicate the presence of SVHC substances in your products, depending on the type of product that you manufacture. You can read more on requirements for articles on the ECHA website: https://echa.europa.eu/regulations/reach/candidate-list-substances-in-articles.

Celanese is in the process of updating its Safety Data Sheets (SDSs) for products which contain >=0.1% of SVHC and will send them to customers as soon as they are available.

The above product does not contain any of the Substances of Very High Concern listed in the REACH 'Candidate List' (published in accordance with Article 59(10) of the REACH Regulation) as amended as per revision date of the letter.

The above product does not contain any of the substances subject to authorization as listed on the Annex XIV of Regulation (EC) N° 1907/2006 as amended as per revision date of the letter.
If present in this product, further information related to substances on REACH Annex XVII list can be found on the Safety Data Sheet (SDS), Article Information Sheet (AIS) or SVHC letter.

Export control

The above product is not subject to US export control. It has been assigned with an ECCN of EAR99 under the US regulation.
No substance mentioned in the European Regulation (EC) N° 689/2008, Annex I, part 1 is added in excess of the limits set.

Food Contact, Drinking Water Contact and Toys

Good Manufacturing Practice for food contact

The requirements of the European Regulation (EC) n° 2023/2006 on Good Manufacturing Practice (GMP) for materials and articles intended to come into contact with food don't apply to the product above

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Food Contact

The above product is not supported for food (FDA) applications in USA.
The above product is not supported for food contact applications in Europe.

Drinking Water Contact

The above product is not listed to be in contact with drinking water.

Electrical and Electronic Industry

Waste Electric and Electronic Equipment (WEEE)

The material complies with the requirements of the European Directive 2012/19/EC (WEEE) and the Chinese Waste electrical and electronic equipment legislation as far as apply to substances.

Restriction of Hazardous Substances (RoHS) and other metals

Results of the various analytical testing, auditing and process analysis techniques or review of current chemical composition demonstrate that this material complies with the requirements of the Directive (EU) 2015/863 (RoHS 3) amending Annex II to directive 2011/65/EU (RoHS 2), 2003/11/EC (pentabromodiphenyl ether, octabromodiphenyl ether), the Chinese Standard GB/T 26572 – 2011 (Chinese RoHS 2, 2016) and the Act for Resource Recycling of Electrical and Electronic Equipment and Vehicles (Korea RoHS).

No metals* and compounds thereof are added.

* Antimony (Sb), Arsenic (As), Barium (Ba), Cadmium (Cd), hexavalent Chromium (CrVI), Lead (Pb), Mercury (Hg), Selenium (Se).

However traces of Barium compound may be present.

If present at all, the levels of cadmium (Cd), hexavalent chromium (CrVI), lead (Pb) and mercury (Hg) are below the 1994 CONEG guide-lines of 100 ppm (total amount), the limits of the European Directive 94/62/EC, and the European Directive 2004/12/EC, (Packaging Waste Directive) of 100 ppm (total amount), as well as the European Directive 2000/53/EC (ELV) as amended with the limits of 0.1% of Cr VI, Pb, Hg in homogeneous material and 0.01% of Cd and the European Directives 2011/65/EU (RoHS 2) / 2002/96/EC (WEEE) and the Chinese Waste Electrical and Electronic Equipment legislation and the Chinese Regulation SJ/T 11363-2006 (Chinese RoHS) of 1000 ppm per metal.

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IEC 62474 - Material Declaration for Products of and for the Electrotechnical Industry

As reference for substance to be declared the IEC 62474 list is used.
This list is accessible under http://std.iec.ch/iec62474

No substances above the limits of declaration of the IEC 62474 list are added.

Flame Retardants

During the manufacture of above product, neither polychlorinated biphenyls (PCB), nor polychlorinated triphenyls (PCT), nor polychlorinated dibenzodioxines (PCDD), nor polychlorinated dibenzofuranes (PCDF), nor polychlorinated biphenyl oxides/ester (PCBO/PCBE), nor polychlorinated diphenyl oxides/ester/ether (PCDO/PCDE), nor polybrominated biphenyls (PBB), nor polybrominated triphenyls (PBT), nor polybrominated biphenyl oxides/ester (PBBO/PBBE), nor polybrominated diphenyl oxides/ester/ether (PBDO/PBDE which include penta-, octa- and deca-BDE), nor polybrominated dibenzodioxines (PBDD), nor polybrominated dibenzofuranes (PBDF), nor Tetrabromobisphenol-A (TBBPA) are intentionally added.

Neither monomethyl dibromo diphenylmethane (DBBT), nor monomethyl dichloro diphenylmethane, nor monomethyl tetrachloro diphenylmethane, nor hexabromocyclododecane (HBCD or HBCDD), nor Tris (2,3 – dibromopropyl) phosphate (TRIS) are intentionally added.
Neither thiram (TMTD), nor triethyl phosphate are intentionally added.

The flame retardant system in flame retardant grades can be identified by the ISO 1043 code as mentioned on the front page of this document.

Halogens

No halogenated* compounds are added in excess of the limits set by applicable regulations**.

Low levels of halogenated compounds may be present as impurities.

* brominated (Br), chlorinated (Cl), fluorinated (F), iodated (I).
** IEC 61249-2-21 and flame retardant additives listed in the European Directive (EU) 2015/863 (RoHS 3) amending Annex II to directive 2011/65/EU (RoHS 2).

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Automotive Industry

End of Life Vehicle (ELV)

Based on test of representative samples of above or similar materials or compositional information it has been demonstrated that the above product complies with the requirements on heavy metals of the European Directive 2000/53/EC (End-of Life Vehicle directive) as amended.

GADSL - Global Automotive Declarable Substances List

As reference for substance to be declared the "Global Automotive Declarable Substance List" (GADSL) is used. This List is accessible under www.gadsl.org

No substances above the limits of declaration of the GADSL list are added.

IMDS - International Material Data System

It is the policy of Celanese Polymers, to supply information in letter form along with legal disclaimers. The following information on our products is provided to you free of charge in order to allow your company to identify the appropriate IMDS data set.

Company name: Celanese (DuPont Performance Solutions Switzerland Sarl)
Company ID: 245050
Type: Material (MDS)
IMDS ID: 631510175

Caution:

The polymer identification and part marking code refer to the material composition (IMDS composition) but also to the material property profile (IMDS symbol field). Therefore, in some cases, differences can appear, e.g in case of impact modification (impact modifier added into the composition, but not generating properties that justify a coding of impact modified polymer).

General information for all plastics and elastomers:

During drying, purging and moulding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat.

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Conditions of 'Good manufacturing Practice', state-of-the-art, fully operational workplace equipment and conditions and respect of the suppliers handling, processing and use prescriptions and precaution have to be assured.
The respect of exposure limits as per applicable Safety data Sheet has to be assured by the material user.
Like most thermoplastic plastics and thermoset elastomers, the product can be recycled. Where possible recovery and recycling is preferred to disposal or incineration. Can be landfilled or incinerated, when in compliance with local regulations.

Specific Information:

For grades containing Polyacetal (POM) polymer, some formaldehyde can be created during processing.
For grades containing glass fibers, these DO NOT represent Whisker-fibers which comply with the description of the WHO for hazardous fibers* . (* Fibers with l > 5 µm, d < 3 µm, l:d > 3:1)

Declaration of recycle content (as per IMDS definition):

Following is the Celanese position: As for metals, glass, textile and paper products, within the raw material specification limits, the feedstock may vary based on technical reasons and availability. Polymer materials therefore have to be considered as 100% new materials if not otherwise indicated.

Validity of Celanese entries into IMDS

Celanese Polymer entries have been validated against the following substance* list:

GADSL list 2022, revision 1.0, released February 2022, http://www.gadsl.org/
Validity of entries: Up to 1st July 2023.

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*Important notice:
Concerning the GADSL entry 55 'Formaldehyde', Threshold

Any intentionally added content of formaldehyde must be reported. Formaldehyde in any material, which may be emitted under reasonable and foreseeable conditions, must be qualitatively indicated. Impurities of formaldehyde above 0.1% has to be declared.

Celanese offers polymers, which are based on formaldehyde as monomer. Monomers are not considered as reportable, since in the material, as assembled to the vehicles, the monomers have been transformed into a solid polymer.
The requirement 'Any material with the potential to emit formaldehyde must be indicated' would require an appropriate input field in IMDS, which, however, is not available. Therefore, this GADSL required information is provides through the 'IMDS Reference Letters', outside the IMDS system.

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CAMDS - China Automotive Material Data System

Information concerning materials entered into CAMDS is available on request. Please contact your Celanese representative for further information.

Other Industries

Öko-Tex

No restricted substances according to the Öko-Tex standard 100 are added.

ChemSHERPA

Information concerning material available from ChemSHERPA is available on request. Please contact your Celanese representative for further information.

JGPSSI & MSDS plus

Celanese does no longer support JGPSSI and MSDS Plus. However all necessary data defined by these topics can be made available through ChemSHERPA. Please contact your Celanese representative for further information.

Waste, Recycling and Recovery

Recycling: Content Declaration for food contact compliant grades

If not otherwise indicated, no recycled materials from external sources are used for grades compliant with European food contact regulations.

Recycling: Content Declaration for industrial grades (as per IMDS definition)

As for metals, glass, textile and paper products, within the raw material specification limits, the feedstock may vary based on technical reasons and availability. Polymer materials therefore have to be considered as 100% new materials if not otherwise indicated.

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Recycling of Packaging Materials: Metals Content (also refered to as ´heavy metals´)

CEN Report prCR 13695-1

None of the four named heavy metals, - cadmium, lead, mercury and hexavalent chromium, - have been intentionally added to this product or the constituents contained in the product.

Recycling: Hazardous Substances

No listed noxious and hazardous substances have been intentionally added to this product or any of the constituents contained.

Recycling of Packaging Materials: Recovery

CEN Standard prEN 13430

This raw material is suitable for recycling subject to the normal conditions of repetitive processing. The ability to recycle following its use will depend on the detailed nature, composition and construction of the former article, the potential contained residues and contamination, and the systems available, for collection and any necessary sorting.

Recycling: Energy Recovery

CEN Standard prEN 13431

The calorific gain from the polymer in an energy recovery process is approximately 12 MJ/kg The amount and nature of inert fillers, which represents the amount and nature of residual ash, can be obtained from the related product literature, this does not contribute to the energy that may be recovered.

(Ref: CEN Standard 13431, example list of net caloric gain values, polyolefins)

Chemical Constituents

Conflict Minerals

No substances reportable under the ‘Dodd-Frank Wall Street Reform and Consumer Protection Act (2010)’ - Conflict Minerals* originating in the Democratic Republic of Congo (DRC) or an adjoining country** - are intentionally added

during manufacturing of this above product.

* columbite-tantalite (coltan, tantalum), cassiterite (tin), gold, wolframite (tungsten), or derivatives.
**adjoining countries are Angola, Zambia, Tanzania, Uganda, Sudan, Rwanda, Burundi and the Central African Republic.

The Conflict Minerals Reporting Template (CMRT) form has been completed for the above product and is available on request.

Nanoparticles content

A material of probable nanoscale size (see below for definition) is added during manufacturing of above product.

The European Commission has defined nanomaterials under Recommendation 2011/696/EU.
These particles may be inextricably bound into a polymer matrix and thus may not require declaration under certain country reporting requirements. Please contact your Celanese representative for more information.

Volatile Organic Compounds (VOC)

No Volatile Organic Compounds as defined in the European Directive 2010/75/EC.

The product contains less than 3% of components considered VOC according to the Swiss VOC Regulation, SR 814.018 (Annex I) or contains products manufactured in Switzerland, which are not on the positive list of products (Annex II).

Ozone Depleting Substances (ODS)

No suspected Ozone Depleting Substances (ODS) of class I or II according to the US Clean Air Act, 1993 amendments, are used.

No suspected Ozone Depleting Substances (ODS) as mentioned in the Montreal Protocol of 1987, amended by the London Convention in 1990, the Copenhagen Convention in 1992, the Vienna Convention in 1995, the Montreal Convention in 1997 and the Beijing Convention in 1999, are used.

No suspected Ozone Depleting Substances (ODS) as mentioned in the European Regulation (EC) No 1005/2009 and the Commission decisions (EC) No 2003/160 and 2004/232 and related European Regulation No 517/2014, repealing the European regulation No 842/2006 are used.

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Chemical Weapons Convention (CWC)

The above product is not subject to reporting requirements under the Chemical Weapons Convention, dated September 2005.

Declarable Substances Content

As reference for substances to be declared the following reference lists are used:

Global Automotive Declarable Substance List (GADSL)
This List is accessible under www.gadsl.org

International Electrotechnical Commission (IEC) 62474 List
This List is accessible under http://std.iec.ch/iec62474

All declarations are made vs. the Regulatory limits*, for which communication channels along the supply chain exists or limits set as referred in the Specific Lists. For non regulated substances a general threshold limit of 0.1% is applied. For any lower declaration limits, specific inquiries have to be made, which can be effort and time intensive. If desired, specific customer testing can be discussed, subject to commercial agreements.

*Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) and amendments.

We do not routinely analyse our products for the substances mentioned on above reference lists, nor do we require our raw material suppliers to do so. Our declaration is based on the intentionally addition during the manufacture of the above product. To the best of our knowledge, these materials are not present as intentional components in the raw materials used in the manufacture of this product except if stated.

Our declaration is based on the intentionally addition during the manufacture of the above product.
Except if differently stated and to the best of our knowledge, these materials are also not present as intentional components in the raw materials used. However, we do not routinely analyze our resins for the substances mentioned on above reference lists, nor do we require our raw material suppliers to do so.

Groups of chemicals of concern not referenced by specific CAS numbers may be subject to interpretation, therefore assessment has been carried out based on our understanding of such generic groups.

There are no substances intentionally added above the limits set by above regulatory standards.

Tetrahydrofuran can be generated in case of polymer degradation. The quantity depends on the degree of degradation and the specific conditions under which the degradation occurs.

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Content of substances relevant to regulations

Please consult the Material Safety Data Sheet (SDS) or Article Information Sheet (AIS) relevant to your Region / country. Due to differences in the applicable regulations, classifications and exposure limits, these may be different from country to country.

Safety, Health, Environmental, Sustainability and Social Responsability

Celanese has a tradition going back over 100 years concerning its Safety, Health and Environmental policies. Our occupational accident rates are one measurable result; they are far below the industry average.
Celanese applies the same philosophy to its products and operations for safety and environmental performance.

Celanese facilities (formerly owned by DuPont) had committed itself to the RESPONSIBLE CARE® initiative of the Chemical Industry on a global basis. This initiative is targeted towards a continuous improvement process in Safety, Health and Environmental performance with measurable results.

All the Celanese polymer manufacturing and laboratory facilities (formerly owned by DuPont) are certified ISO 9001. Most of the Celanese production locations have received the ISO 14001 certification or are actively working to obtain it. The certificates are available on request for the specific products/production locations of interest.

Reports concerning the Celanese sustainability approach are published under
https://www.celanese.com/corporate-sustainability-strategy

The Celanese's position towards social commitment can be found on
https://www.celanese.com/about-us/who-we-are

If you have further questions concerning Celanese or our products, please do not hesitate to contact your Celanese representative.

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Disclaimer :

1. This statement is based on our current level of knowledge. This information is provided in good faith and is believed accurate as the date of the document. It is based on a review of current formulation, composition, manufacturing process and information supplied by vendors. No warranty is expressed or implied. Liability is expressly disclaimed.
2. The data is not intended to substitute for any testing you may need to determine the suitability of this product for a particular purpose.
3. This information is valid only for Celanese Polymer products as shipped from our facility, and may become invalid if the product is mixed with other materials or otherwise altered.
4. Statements concerning the use of the products or formulations described herein are not to be construed as recommending the infringement of any patent, copyright, designs or other intellectual property and no liability for infringement arising out of such use is assumed by Celanese. None of this information is to be considered as a license to operate under any patents.
5. For safety, health and environmental information please refer to the Material Safety Data Sheet which is the primary source of information.