

# Status of Continuous Filament Glass Fiber products under selected international chemical regulations

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## 1 Legal disclaimer

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## 2 Executive summary

Continuous Filament Glass Fiber (CFGF) products meet the definition of Article in various international chemical regulations. While the wording may differ from country to country, the letter and intent of the definitions are consistent and applicable to CFGF products.

Articles are exempted from notification and registration obligations and consequently from listing on the different chemical substance inventories (e.g. AICS, DSL, TSCA, ...). Moreover, import of Articles is not subject to registration requirements of the substances of which the articles are made as long as they are not released during normal use.

Articles are exempted from classification and labeling under GHS implementing regulations with the exception of some explosive or pyrotechnical products. In some country regulations, this exemption refers to articles which do not release hazardous substances in relevant amounts during normal conditions of use. A safety data sheet is not required for Articles which are not subject to classification and labeling.

### **Conclusion: CFGF products**

**are not subject to registration or notification under chemical regulations like EU-REACH, K-REACH, US TSCA etc.**

**do not have to be listed on the national chemical inventories**

**are not subject to classification and labeling according to GHS and related implementing regulations**

**do not require a safety data sheet (SDS).**

## 3 General

The purpose of this document is to provide information regarding the regulatory status of CFGF products under the various enacted global chemical laws and regulations. This document will provide supporting information and references related to registration/notification, classification, labeling and safety data sheet (SDS) requirements applicable to CFGF products.

## 4 Generic description of CFGF as a fiber / article

### 4.1 Shape of CFGF

Continuous filament glass fibre products are produced by a continuous drawing process through a “bushing” (a device fitted with calibrated holes) which forms continuous glass filaments from molten glass. This process is designed to obtain glass filaments with a defined and precisely controlled diameter. A surface treatment (sizing) is applied onto the glass filament which are then gathered into continuous filament glass fibre strands. The fibrous shape is the essential characteristic to deliver the function: reinforcement of a polymer matrix.

### 4.2 Design of CFGF

The CFGF strands are further processed into various product designs according to their use, e.g.:

Single end or direct roving: the single filaments are brought together into a bundle in order to result in a well-defined design.

Multi-end or assembled roving: single filaments are brought together into a bundle, these bundles are again brought together in order to result in a well-defined design. The design is also influenced by the number of strands, the orientation of the fibres and the linear density.

Dry and wet chopped strands: the filaments are cut (chopped) to a specific length.

Milled fibres: the filaments are milled which results in shorter fibres; they keep their original filament diameter.

Textile yarns – single yarns consisting of pre-determined number of filaments, further processed and available in form of twisted, plied, volumized and texturized yarns.

Technical Fabrics: woven fabrics of various structures made of textile yarns with coating/impregnation in forms of mesh fabrics, wall coverings, laid scrim, insect screens, grinding wheels fabrics, dry wall tapes, etc.

Chopped Strand Mat or Continuous Filament Mat: the strands (chopped or not) are distributed on a conveyor with a binder application

The shape of the fibre filament, especially its diameter, as well as the additional design characteristics of the various CFGF products, is essential for delivering the function.

### 4.3 Surface of CFGF

The filament shape (endless cylinder) defines the size of the final surface of the fibre, which is a direct function of the diameter and length.

### 4.4 Function of CFGF

The function of CFGF products is defined by the purpose of their use.

CFGF are used mainly as reinforcement in plastics, where they have the function to increase the mechanical strength, the thermal and chemical resistance of the plastics.

After their embedding in a plastic resin, the continuous filament glass fibres - aligned following a pre-defined direction or dispersed isotropically – are still characterized by their original filament diameter and a high length-to-diameter ratio. This result in a high surface-to-volume ratio permitting optimum anchorage of fibres within the plastic through the surface treatment (sizing) deposited on fibre surface and leads to a high improvement in the material strength, i.e. the reinforcement function.

CFGF can also be used for acoustic or thermal insulation where their function is to form a porous network through which heat or sound energy can be attenuated. This function is obtained by the friction of fluids (usually air) against the large surface of the CFGF randomly placed in defined volumes.

## 5 European Union

### 5.1 Applicable regulations

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. (REACH).

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. (CLP).

### 5.2 Article definition

Article 3(3) of the REACH regulation defines an article as follows:

article: means an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition.

### 5.3 Status of CFGF

CFGF products are given a special shape, surface or design during production (shape of a fibre). Further details can be found in section 3 of this document. The function (reinforcement, insulation) is to a greater degree determined by the shape, surface or design than does its chemical composition. Indeed, as described in section 3, the function is depending mostly on the fibre shape and high surface.

### 5.4 Registration and notification obligations

According to Article 6(1) of the REACH regulation, “a substance, either on its own or in one or more mixture (s)” has to be registered. Article 7(1)(b) specifies, that substances in articles need only to be registered if “the substance is intended to be released under normal or reasonably foreseeable conditions of use”.

Since CFGF products do not release any substances intentionally under normal or reasonably foreseeable conditions of use, CFGF products and the substances contained therein need not to be registered.

### 5.5 Hazard classification and labeling and safety data sheet (SDS)

Article 31 of the REACH regulation requires that a SDS has to be provided for substances and mixtures fulfilling certain conditions. A SDS for articles is not required.

This is confirmed by the “Guidance on the compilation of safety data sheets” page 8 last section

*SDSs do not have to be provided for articles. Although the SDS format may, for a few specific articles, be used to convey safety information down the supply chain, it is not adapted to most articles.*

Article 3 and 4(1) of the CLP regulation require that classification as hazardous applies to substances and mixtures. Article 4(8) relates to annex I 2.1 to clarify that explosive articles must be classified and labeled like substances and mixtures.

Since CFGF products are no substances or mixtures and have no explosive properties, they need not to be classified and labeled.

### 5.6 References

Guidance on requirements for substances in articles

Guidance on the compilation of safety data sheets.

REACH and CLP regulation

All the references are available on the European Chemicals Agency (ECHA) website under <https://echa.europa.eu/home>.

## 6 Switzerland

### 6.1 Applicable regulations

The provisions governing the obligation to notify, declare and register new substances are contained in the Ordinance on Protection against Dangerous Substances and Preparations (Chemicals Ordinance, ChemO SR 813.11) of June 5, 2015.

The Federal Council has resolved to harmonise Swiss Chemicals legislation with that of the EU. The current legal provisions applicable to chemicals take account of the European regulations in the following versions:

Ordinance: ChemO as at 01.05.2017 harmonized with

- REACH Regulation last modified by Regulation (EU) 2016/1688 (Annex VII-VIII REACH) [See Annex 2 ChemO] and
- CLP-Regulation last modified by Regulation (EU) 2016/1179 (9. ATP) [see Annex 2 ChemO]. Annex 3 ChemO takes into account the SVHC candidate list of the ECHA last modified by the decision ECHA ED/21/2016.

### 6.2 Article definition

“Article” (under European law): corresponds in accordance with the ChemO Annex 1 to the term “*Object*” (art.2, al.2,e (ChemO)) under Swiss law:

*Object* means an article, consisting of one or more substances or preparations, which during production is given a special shape, surface or design which determines its end use function to a greater degree than does its chemical composition.

### 6.3 Status of CFGF

CFGF products are given a special shape, surface or design during production (shape of a fibre). Further details can be found in section 3 of this document. The function (reinforcement, insulation) is to a greater degree determined by the shape, surface or design than by its chemical composition. Indeed, as described in section 3, the function is depending mostly on the fibre shape and high surface to volume ratio.

### 6.4 Registration and notification obligations

According to Article 24, al. 1 of ChemO, new substances must be notified as such or as a component of a mixture. Substances in objects (articles) must be notified only if intended to be released under normal or reasonably foreseeable conditions of use. Since CFGF products do not release any substances under normal or reasonably foreseeable conditions of use, CFGF products and the substances contained therein need not to be registered.

## 6.5 Hazard classification and labeling and safety data sheet (SDS)

Article 19 of the Chemicals Ordinance (ChemO SR 813.11) requires that a SDS has to be provided only for substances and mixtures fulfilling certain conditions. A SDS for objects (articles) is not required.

This is confirmed by the guideline for swiss safety data sheets (“La fiche de données de sécurité en Suisse”) (Internet Document, Jan 23, 2017) page 6, section 2.2 :

*“N.B. ./.. “Pour ce qui est des objets, l’établissement d’une fiche de données sur une base volontaire n’est pas souhaité, à quelques exceptions près” (As far as objects are concerned, the issuing of an SDS on a voluntary basis is not desirable, with some exceptions.)”*

Regarding classification and labeling of hazardous substances and mixtures, the Swiss ChemO refers directly to the European Union CLP regulation. to the CLP regulation clarifies that only explosive articles must be classified and labeled.

Since CFGF products are neither substances or mixtures nor have explosive properties, they need not to be classified and labeled.

## 6.6 References

Ordinance on Protection against Dangerous Substances and Preparations (Chemicals Ordinance, ChemO SR 813.11: <https://www.admin.ch/opc/en/classified-compilation/20141117/index.html>

Access to Internet Document “La fiche de données de sécurité en Suisse” :  
<https://www.anmeldestelle.admin.ch/chem/fr/home/themen/recht-wegleitungen/wegleitungen-interpretationshilfen.html>

REACH and CLP regulation: <https://echa.europa.eu/home>

## 7 Australia

### 7.1 Applicable regulations

Industrial Chemicals (Notification and Assessment) Act 1989 (ICNA Act).

Model Work Health and Safety (WHS) Act.

### 7.2 Article definition

An article is defined in the *Industrial Chemicals (Notification and Assessment) Act 1989 (ICNA Act)* in Part 1(6) (2) as follows:

**article** means an object that:

- a. is manufactured for use for a particular purpose, being a purpose that requires that the object have a particular shape, surface or design; and
- b. is formed to that shape, surface or design during manufacture; and

- c. undergoes no change of chemical composition when used for that purpose except as an intrinsic aspect of that use;

but does not include a particle or a fluid.

The Guidance on the Classification of Hazardous Chemicals under the WHS Regulations gives in section 3.3 the definition and classification of an article.

Under the WHS regulations an **article** means a manufactured item, other than a fluid or particle, that:

- a) is formed into a particular shape or design during manufacture
- b) has hazard properties and a function that are wholly or partly dependent on the shape or design.

### 7.3 Status of CFGF

CFGF products are used for a particular purpose like for example plastic reinforcement. This purpose (here the reinforcement) requires that CFGF have a particular shape, surface or design. CFGF is given the shape of a fiber during the manufacturing process. CFGF do not change their chemical composition during use, only the surface react with the plastic matrix which is an intrinsic aspect of the use as reinforcing fibers.

If you import or manufacture a pre-shaped solid substance (such as a filament like CFGF) and it undergoes only limited further processing (such as cutting or bending), then it is considered to be an article. Limited further processing means a process in which the original shape of the article is preserved, and so does not include processes such as pulverizing, melting or pelletizing.

In conclusion, CFGF products are considered articles according to the definition of the *ICNA Act*.

CFGF products are formed into a particular shape or design (fiber) during manufacture. They do not contain or release hazardous chemicals in relevant amounts. Therefore they are articles according to the definition of the WHS regulations.

CFGF do also not have hazard properties dependent wholly or partly on the shape or design. Therefore CFGF products are not hazardous articles according to WHS regulations.

### 7.4 Registration and notification obligations

Article 6 "Meaning of Chemical" defines in section (1) a "chemical". According to 6(1)(e) an article is not included in the definition of a chemical. In "Part 2 - Australian Inventory of Chemical Substances", only "chemicals" have to be listed in the inventory. The same rule applies in "Part 3 - Notification and Assessment of Industrial Chemicals".

On the NICNAS webpage (see <https://www.nicnas.gov.au/register-your-business/chemical-and-registration/what-is-an-article> ) it is clarified that articles do not need to be registered. Chemicals in articles need only registration if designed to be released (example liquid in a container).

## 7.5 Hazard classification, labeling and safety data sheet (SDS)

Under the WHS Regulations, a manufacturer or importer of substances, mixtures and articles has a duty to determine whether they are hazardous to the health and safety of persons, before they are supplied for workplace use.

CFGF products are not hazardous articles in the meaning of WHS and need not to be labelled. A Safety Data Sheet is not required.

## 7.6 References

<https://www.legislation.gov.au/Details/C2016C00816>

<https://www.nicnas.gov.au/register-your-business/chemical-and-registration/what-is-an-article>

<https://www.safeworkaustralia.gov.au/doc/guidance-classification-hazardous-chemicals-under-work-health-and-safety-whs-regulations>

## 8 Canada

### 8.1 Applicable regulations

Canadian Environmental Protection Act (CEPA 1999)

Hazardous Products Act (R.S.C., 1985, c. H-3)

Hazardous Products Regulations (SOR/2015-17)

Workplace Hazardous Materials Information System (WHMIS) 2015

### 8.2 Article definition

According to the definitions of section 3.(1) of the CEPA 1999

“substance” means any distinguishable kind of organic or inorganic matter, whether animate or inanimate, and includes

(a) any matter that is capable of being dispersed in the environment or of being transformed in the environment into matter that is capable of being so dispersed or that is capable of causing such transformations in the environment

(b) any element or free radical,

(c) any combination of elements of a particular molecular identity that occurs in nature or as a result of a chemical reaction, and



(d) complex combinations of different molecules that originate in nature or are the result of chemical reactions but that could not practicably be formed by simply combining individual constituents,

and, except for the purposes of sections 66, 80 to 89 and 104 to 115, includes

(e) any mixture that is a combination of substances and does not itself produce a substance that is different from the substances that were combined,

(f) any manufactured item that is formed into a specific physical shape or design during manufacture and has, for its final use, a function or functions dependent in whole or in part on its shape or design, and

(g) any animate matter that is, or any complex mixtures of different molecules that are, contained in effluents, emissions or wastes that result from any work, undertaking or activity.

The Hazardous Products Act defines in section 2 – definitions a **manufactured article**

*means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, when being installed, if the intended use of the article requires it to be installed, and under normal conditions of use, will not release or otherwise cause an individual to be exposed to a hazardous product;*

### 8.3 Status of CFGF

CFGF products are manufactured items that are formed into a specific physical shape or design during manufacture (filament). Their function, namely the reinforcement of plastic is dependent on its shape or design.

CFGF products are therefore covered by the substance definition under 3.(1) (f) of the CEPA 1999 and are considered manufactured items (articles).

Since CFGF will not release or otherwise cause an individual to be exposed to a hazardous product, CGFG are in the scope of the definition of the Hazardous Products Act.

### 8.4 Registration and notification obligations

Sections 66, 80 to 89 and 104 to 115 of the CEPA 1999 do not apply to manufactured items (articles) as defined in section 3 (1) (f).

Section 66 - 89: covers the “Domestic Substances List (DSL)”, “Non-domestic Substances List (NDSL)”, notification of new substances not listed on the substance lists and notification of significant new activity

Section 104 – 115 applies to living organisms.

Since CFGF products are manufactured items, they are exempted from listing on the DSL and NDSL as well as new substance and use notification.

## 8.5 Hazard classification and labeling and safety data sheet (SDS)

§12(i) of The Hazardous Products Act excludes manufactured articles from Part II of the act. Part II regulates i.a. the safety data sheet and refers to the Hazardous Products Regulation which has been elaborated based on section 15(1) of the act.

Conclusion: for CFGF product a SDS and label is not required.

## 8.6 References

<https://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=CC0DE5E2-1>

<http://laws-lois.justice.gc.ca/eng/acts/H-3/>

<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2015-17/index.html>

[http://www.ccohs.ca/oshanswers/chemicals/whmis\\_ghs/glossary/glossary\\_h.html](http://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/glossary/glossary_h.html)

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/occupational-health-safety/workplace-hazardous-materials-information-system.html>

<http://whmis.org/>

## 9 Japan

### 9.1 Applicable regulations

CSCL: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

### 9.2 Article definition

Products that possess specific shapes and do not change in their composition or shape when in use (e.g. synthetic resin storage containers, plates, tubes, rods, and films).

### 9.3 Status of CFGF

CFGF products meet the definition of “Products” as described in “section(4) (i).

CFGF products are not a “chemical substance” as per definition of Article 2 of CSCL.

Reaction products may result from the interaction of the glass fiber surface treatment (sizing) with the polymer matrix, however, such reaction products are not regarded as “chemical compound created by causing chemical reactions” as clarified in section (3) of “Appended 6” of the Import Clearance Procedures.

### 9.4 Registration and notification obligations

Reference: Q&A by the authority (Ministry of Economy, Trade and Industry)

➤ When an artificial chemical reaction is limited to specific parts

✧ Q: Would manufactured amount notification be required if there is a chemical reaction when surface treatment is conducted by metal plate or coating to plastic or glass?

✧ A: If the chemical reaction is limited to specific parts (e.g., surface treatment of metals, adhesives or coating mediums that cause chemical reactions when used), it does not come under manufacturing chemical substance and will not be subject for a notification.

## 9.5 Hazard classification and labeling and safety data sheet (SDS)

Materials to which GHS is not applied fundamentally are the following (1) and (2).

1) Molded article: Products other than liquids, powders, or particles, which formed into specified shapes or designs in manufacturing, and the whole or parts maintain the functions in the final applications depending on the shapes or designs. Under usual using conditions, the material releases very small amount, for example a trace amount, of chemicals included, and does not show any physico-chemical risks to handlers or hazards to health. Molded articles which release harmful materials are subjects to the GHS.

CFGF products meet the above definition of "Molded Article" and therefore GHS classification and Safety Data Sheet are not required.

## 9.6 References

[http://www.meti.go.jp/policy/chemical\\_management/english/cscl/files/laws/import\\_notice.pdf](http://www.meti.go.jp/policy/chemical_management/english/cscl/files/laws/import_notice.pdf)

[http://www.meti.go.jp/policy/chemical\\_management/int/files/ghs/h25jenter\\_en.pdf](http://www.meti.go.jp/policy/chemical_management/int/files/ghs/h25jenter_en.pdf)

## 10 South Korea

### 10.1 Applicable regulations

Act on Registration, Evaluation, Etc. of Chemicals – Act No. 11789, May 22 2013 (official translation from

[http://elaw.klri.re.kr/kor\\_service/lawView.do?hseq=31605&lang=ENG](http://elaw.klri.re.kr/kor_service/lawView.do?hseq=31605&lang=ENG)).

### 10.2 Article definition

Article 2 (Definitions) of the act:

Definitions of the terms used in this Act are listed below:

15. The term "product" means any of the following products that may expose consumers to chemical substances, which are goods finally used by consumers, or components or parts thereof;

(a) A product composed of a mixture of substances;

*(b) A product that fulfills a certain function in solid state with specific shape without discharging any chemical substance in its use.*

16. The term "product of risk concern" means any of the chemical product announced by the Minister of Environment in consultation with the heads of relevant central administrative agencies as the products are likely to risk people's health or the environment among the following:

(a) Products mainly used by ordinary consumers for daily uses, such as detergents, fragrances, adhesives, polishes, deodorants, synthetic detergents, bleaching agents and fabric softeners;

(b) Products used to kill all harmful organisms, excluding humans and animals, or to interfere with or hinder organisms' activities, such as insecticides, disinfectants and preservatives.

### 10.3 Status of CFGF

CFGF products "fulfill a certain function in solid state with specific shape without discharging any chemical substance" in its use according to the definition in Article 2.15(b) above.

### 10.4 Registration and notification obligations

Article 8 (Reporting of Manufacture, etc. of Chemical Substances)

(1) Any person who manufactures, imports or sells a new chemical substance or at least one ton per year of an existing chemical substance shall report the uses, quantity, etc. of the chemical substance to the Minister of Environment every year as prescribed by Ordinance of the Ministry of Environment.

(2) Paragraph (1) shall not apply to the following chemical substances:

1. A chemical substance imported as contained in machinery;

2. A chemical substance imported along with machinery or equipment for a test run;

*3. A chemical substance in a product in solid state with specific shape for a certain function and not discharged during its use;*

Article 11 (Exemption from Registration of Chemical Substances)

(1) Any person who intends to manufacture or import a new chemical substance or an existing chemical substance subject to registration that falls under any of the following *may manufacture or import the chemical substance without registration under Article 10:*

*1. Chemical substances falling under Article 8 (2) 1 through 3*

**Based on above Art. 2.15, 8. 2. 3 and 11.1.1, CFGF products and substances therein are exempted from Registration under “K-REACH”.**

Article 32 (Reporting of Products Containing Hazardous Chemical Substances)

(1) Where the total quantity of each chemical substance in a product exceeds one ton per year, any seller or manufacturer of a product containing hazardous chemical substances shall report the name, content and information on hazards of chemical substance in the relevant product, and uses of hazardous chemical substances in the product to the Minister of Environment before he/she manufactures or imports the product as prescribed by Ordinance of the Ministry of Environment: *Provided, That this shall not apply to any product in solid state with specific shape for a certain function without discharging the chemical substance during use.*

**Article 32 is not applicable to CFGF products and the substances contained therein since they are “products in solid state with specific shape for a certain function without discharging the chemical substance during use”.**

## 10.5 Hazard classification and labeling and safety data sheet (SDS)

Regulatory Reference: Ministry of Employment and Labor Public Notice #2016-19

Standards for Classification and/or Labeling of Chemicals and for Materials Safety Data Sheets

Article 3 (Exempt Substances)

The following substances are “other formulations which the Minister of Employment and Labor deems and publicly notifies to be only slightly hazardous, such as in terms of toxicity and explosiveness” in Item 12, Article 32-2 of the Enforcement Decree of the Industrial Safety and Health Act (hereinafter, referred to as the “Decree”).

1. Formulations containing less than 1 percent (%) of substances that fall under Item 1 of Annex 11-2 of the Enforcement Rules of the Industrial Safety and Health Act (hereinafter referred to as the “Rules”).

2. *Formulations which are finished products in a solid state for which there is no concern that handling workers will be exposed to the respective products and the applicable Chemicals contained in the products (however, this does not apply to products containing specially controlled substances).*

**CFGF products meets the exemption criteria defined by Article 3. 2. of the Standards for Classification and/or Labeling of Chemicals and for Materials Safety Data Sheets.**

## 10.6 References

[http://elaw.klri.re.kr/kor\\_service/lawView.do?hseq=31605&lang=ENG](http://elaw.klri.re.kr/kor_service/lawView.do?hseq=31605&lang=ENG)

Ministry of Employment and Labor Public Notice #2016-19

## 11 USA

### 11.1 Applicable regulations

40 CFR §700-799: Toxic Substances Control Act (TSCA); authority: Environmental Protection Agency (EPA).

29 CFR 1910.1200: Hazard Communication Standard (HCS); authority: Occupational Safety and Health Administration (OSHA).

### 11.2 Article definition

**TSCA** defines an article in 40 CFR §704.3 as follows:

*Article* means a manufactured item:

- (1) which is formed to a specific shape or design during manufacture,
- (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and
- (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the article, and that result from a chemical reaction that occurs upon end use of other chemical substances, mixtures, or articles; except that fluids and particles are not considered articles regardless of shape or design.

**HCS** defines an article somewhat differently in 29 CFR §1910.1200(c):

*Article* means a manufactured item other than a fluid or particle:

- (i) which is formed to a specific shape or design during manufacture;
- (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
- (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

### 11.3 Status of CFGF

CFGF are formed to a specific shape or design during manufacture. The end use function depends to a high degree on the fiber shape and size as a reinforcement, and the product is sold in various sizes to meet customer demand. The sizing reacts chemically with the plastic matrix, which is as intended and has no commercial purpose separate from the CFGF. CFGF are not fluids or particles.

In view of the HCS definition, CFGF do not release hazardous chemicals or pose a physical hazard or health risk to employees under normal conditions of use.

In conclusion: CFGF products can be considered articles under both the TSCA and HCS definitions.

Since milled fibers are not classified as particles (microscopic examinations show that milled fibers keep their fiber shape, just at shorter lengths than the original fibers), they are also considered articles under the TSCA and HCS definitions.

## 11.4 Registration and notification obligations

According to TSCA (40 CFR §720.30), the following substances are not subject to the notification requirements of this part:

(a) Any substance which is not a “chemical substance” as defined in §720.3(e);

.....

(h)(5) Any chemical substance which results from a chemical reaction that occurs upon end use of another chemical substance, mixture, or article such as an adhesive, paint, miscellaneous cleanser or other housekeeping product, fuel additive, water softening and treatment agent, photographic film, battery, match, or safety flare, and which is not itself manufactured or imported for distribution in commerce or for use as an intermediate.

(h)(6) Any chemical substance which results from a chemical reaction that occurs upon use of curable plastic or rubber molding compounds, inks, drying oils, metal finishing compounds, adhesives, or paints, or any other chemical substance formed during the manufacture of an article destined for the marketplace without further chemical change of the chemical substance except for those chemical changes that occur as described elsewhere in this paragraph.

(h)(7) Any chemical substance which results from a chemical reaction that occurs when (i) a stabilizer, colorant, odorant, antioxidant, filler, solvent, carrier, surfactant, plasticizer, corrosion inhibitor, antifoamer or defoamer, dispersant, precipitation inhibitor, binder, emulsifier, deemulsifier, dewatering agent, agglomerating agent, adhesion promoter, flow modifier, pH neutralizer, sequesterant, coagulant, flocculant, fire retardant, lubricant, chelating agent, or quality control reagent functions as intended, or (ii) a chemical substance, which is intended solely to impart a specific physiochemical characteristic, functions as intended.

40 CFR §711.10(b) exempts substances as part of an article from the chemical data reporting (CDR) rule.

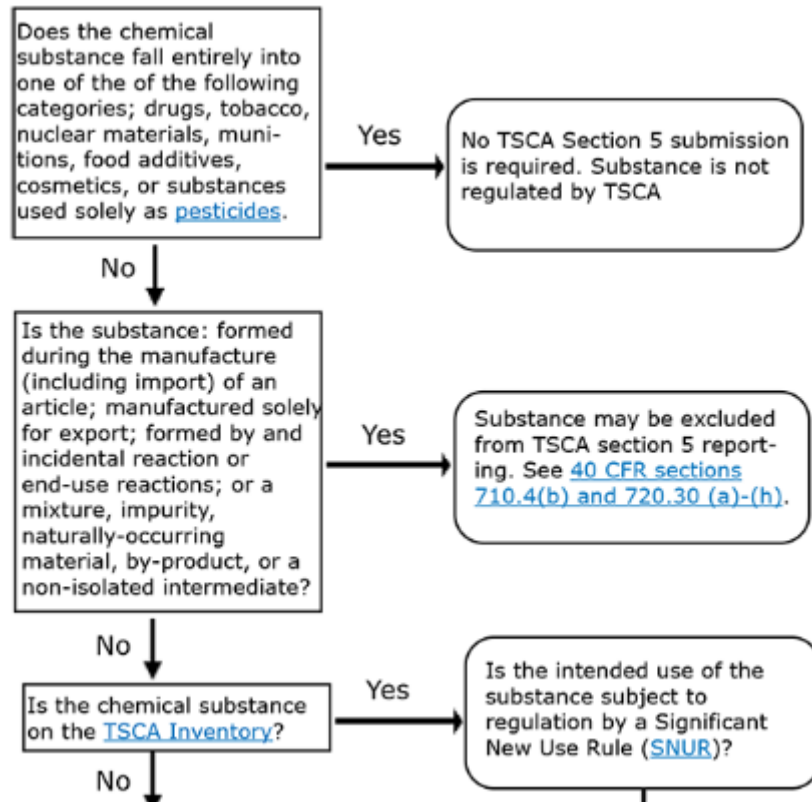


Figure 1: Excerpted from “Who must submit a premanufacture notice (PMN) to EPA?” flow chart. “Basic Information for the Review of New Chemicals.” U.S. Environmental Protection Agency. <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/basic-information-review-new>. Retrieved 12 January 2017.

Note that EPA has the authority under TSCA to promulgate a chemical-specific rule if the Administrator determines that a substance in an article has potential effects that would require a PMN.

## 11.5 Hazard classification and labeling and safety data sheet (SDS)

Since CFGF are considered articles under the OSHA Hazard Communication standard, they are not hazardous substances or mixtures and need not to be labeled.

Since CFGF are considered articles under the OSHA Hazard Communication standard, an SDS is not required.

## 11.6 References

“Basic Information for the Review of New Chemicals.” U.S. Environmental Protection Agency, <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/basic-information-review-new>. Retrieved 12 January 2017.

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## **12 Status of CFGF added to a compound (article in mixtures) (all)**

The sizings and binders used for protecting CFGF surfaces are not intended to be released.

Reach, Annex V no. 4

Substances which are not themselves manufactured, imported or placed on the market and which result from a chemical reaction that occurs when:

- (a) a stabiliser, colorant, flavouring agent, antioxidant, filler, solvent, carrier, surfactant, plasticiser, corrosion inhibitor, antifoamer or defoamer, dispersant, precipitation inhibitor, desiccant, binder, emulsifier, de-emulsifier, dewatering agent, agglomerating agent, adhesion promoter, flow modifier, pH neutraliser, sequesterant, coagulant, flocculant, fire retardant, lubricant, chelating agent, or quality control reagent functions as intended; or
- (b) a substance solely intended to provide a specific physicochemical characteristic function as intended.

Reference:

Guidance for Annex V:

[https://echa.europa.eu/documents/10162/23036412/annex\\_v\\_en.pdf/8db56598-f7b7-41ba-91df-c55f9f626545](https://echa.europa.eu/documents/10162/23036412/annex_v_en.pdf/8db56598-f7b7-41ba-91df-c55f9f626545)

## 13 Eurasian Economic Union

### 13.1 Applicable regulations

#### TECHNICAL REGULATION OF THE EURASIAN ECONOMIC UNION "ON SECURITY OF CHEMICAL PRODUCTS" (TR EAEU 041/2017)

This technical regulation was developed in accordance with Article 52 of the Treaty on the Eurasian Economic Union of May 29, 2014, and also taking into account the Globally Harmonized System of Classification of Hazards and Labeling of Chemical Products (GHS) (2011).

Members of the Council of the Eurasian Economic Commission:

Armenia, Belarus, Kazakhstan, Kirgizia, Russia.

### 13.2 Article definition

CFGF products meet the definition of chemical products for which the requirements of technical regulation of the Eurasian Economic Union on safety of chemical products (TR EAEU 041/2017) do not apply, as detailed in [13.3](#) and [13.6](#) below.

### 13.3 Status of CFGF

The requirement of this technical regulation applies to all chemical products put into circulation in the customs territory of the Union, **except** for products according to the list in accordance with APPENDIX No. 1 of the above mentioned technical regulation:

CHEMICAL PRODUCTS FOR WHICH THE REQUIREMENTS OF THE TECHNICAL  
REGULATION OF THE EURASIAN ECONOMIC UNION  
"ON SAFETY OF CHEMICAL PRODUCTS"  
(TR EAEU 041/2017) **DO NOT APPLY**

**Substances in the composition of articles** in circulation of the customs territory of the Eurasian Economic Union, which do not change their chemical composition and state of aggregation, and are not subject to decomposition or oxidation processes, and which do not form dusts, vapors and/or aerosols containing chemicals that are hazardous to the life and health of humans, animals or plants, the environment, or property.

./..

## 13.4 Registration and notification obligations

"notification" - the procedure for including information about new chemical substances in the register of chemical substances and mixtures of the Union.

Notification is carried out by the authorized bodies of the Member States (hereinafter referred to as the authorized bodies) in respect of new chemicals released into circulation in the customs territory of the Union after the entry into force of this technical regulation in the manner established by the Eurasian Economic Commission.

“chemical products” means a chemical substance or mixture.

"mixture" - a mixture or solution of two or more chemicals in which the chemicals do not react with each other.

"chemical substance" - chemical elements and (or) their compounds that are in a natural state or obtained as a result of any production process, including any additives necessary to ensure stability, and any impurities caused by the process of obtaining chemical products, excluding any solvent that can be separated without disturbing the stability of a chemical or changing its composition (chemicals include chemical products in which a chemical is present in a concentration of 80 percent (by weight) or more, while the remaining 20 percent (by weight) or less are considered impurities and (or) additives).

CFGF products meet the definition of chemical products for which the requirements of the technical regulation of the Eurasian Economic Union on safety of chemical products (TR EAEU 041/2017) **do not apply** (13.3 and 13.6).

## 13.5 Hazard classification and labeling and safety data sheet (SDS)

Requirements for the information that must be contained in a safety data sheet are specified in GOST 30333-2007.

A single sign of product circulation on the Union's market is applied to each unit of chemical products (consumer and transport packaging, or label) in any way that ensures its clear image throughout the shelf life of such chemical products. If it is impossible to apply a single sign of product circulation on the Union market on consumer and transport packaging, or a label, it may be applied to accompanying documents.

Labeling of chemical products with a single sign of product circulation on the Union market indicates the conformity of chemical products to the requirements of this

technical regulation and other technical regulations of the Union (Customs Union), the requirements of which apply to it.

CFGF products meet the definition of chemical products for which the requirements of the technical regulation of the Eurasian Economic Union on safety of chemical products (TR EAEU 041/2017) **do not apply** (13.3 and 13.6).

## 13.6 References

### Regulatory Reference:

**TECHNICAL REGULATION Eurasian Economic Union "On the safety of chemical products" (TR EAEU 041/2017)**

<http://www.mintest-russia.com/upload/iblock/6ba/6ba1fa724bdc546217c1bf25c1947e26.pdf>

<i>Extract of official Russian Text:</i>	<i>Free English Translation:</i>
<p><b>ПРИЛОЖЕНИЕ № 1</b> к техническому регламенту Евразийского экономического союза «О безопасности химической продукции» (ТР ЕАЭС 041/2017)</p> <p><b>ПЕРЕЧЕНЬ</b> химической продукции, на которую действие технического регламента Евразийского экономического союза «О безопасности химической продукции» (ТР ЕАЭС 041/2017) не распространяется ./..</p> <p>7. Продукция в составе изделий, которая в процессе обращения на таможенной территории Евразийского экономического союза не изменяет свой химический состав и агрегатное состояние, не подвержена процессам деструкции и окисления, не образует пыли, паров и аэрозолей, содержащих химические вещества, представляющие опасность в</p>	<p><b>APPENDIX No. 1</b> to the technical regulations Eurasian Economic Union "On the safety of chemical products" (TR EAEU 041/2017)</p> <p><b>LIST</b> <b><u>chemical products</u> on which the requirements of technical regulations of the Eurasian Economic Union "On the safety of chemical products" (TR EAEU 041/2017) <u>do not apply</u></b></p> <p>./..</p> <p>7. <b>Substances in the composition of articles</b> in circulation of the customs territory of the Eurasian Economic Union, which do not change their chemical composition and state of aggregation, and are not subject to decomposition or oxidation processes, and which do not form dusts, vapors and/or aerosols containing chemicals that are hazardous to the life and health</p>

отношении жизни и здоровья  
человека, жизни и здоровья  
животных и растений, окружающей  
среды, имущества.  
./..

of humans, animals or plants, the  
environment, or property.  
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