

TEGO® Flow ZFS 460

TABLE OF CONTENTS

Global Chemical Inventories	1
Australia	1
Canada	1
China	1
Eurasian Economic Union	1
European Union	1
Japan	1
New Zealand	1
Philippines	1
South Korea	2
Switzerland	2
Taiwan	2
Turkey	2
United Kingdom	2
USA	2
Vietnam	2
Country Product Registers	3
Scandinavian Product Register	3
Spanish Poison Center (INTCF)	3
Food Contact Status	3
Ecolabel Status	3
Further regulatory Information referring to final materials or articles	4
DIN EN 71-3 : 2021 (Safety of Toys: Migration of certain elements)	4
US ASTM - F 693 (Safety of Toys)	4

Maine CHCC (Safety of Toys)	4
Oregon CHCC (Safety of Toys)	4
Vermont CHCC (Safety of Toys)	4
Washington State CHCC (Safety of Toys)	4
Directive 2011/65/EC (RoHS) amended through Directive (EU) 2015/863	4
Council Directive 94/62/EC (packaging and packaging waste)	4
Coalition of North Eastern Governors (CONEG)	5
China GB/T39498-2020 (Guidelines for Controlling the Use of Key Chemical Substances in Consumer Products)	5
California Proposition 65	5
CERCLA	5
SARA 311/312/313	5
Additional information	6
Biocides Content	6
SVHC substances	6
Volatile Organic Compounds (VOC) / Semi-Volatile Organic Compounds (SVOC)	6
Diverse substances	7
Further information	13
Other regulations	13

GLOBAL CHEMICAL INVENTORIES

Last revision for this chapter was on 2024-01-04

The below country inventory information results from a set of confidential data. If required, necessary data can be made available to the country authorities directly.

Australia

All components are listed on AICC; SIR (specific information requirements) apply.

Canada

All components are listed on DSL.

China

All components are listed on IECSC.

Eurasian Economic Union

The relevant components were reported to the inventory of chemicals and mixtures of the Eurasian Economic Union. (EAEU inventory).

European Union

All components are listed on EINECS or ELINCS.

The REACH-relevant substance(s) are registered.

In order to avoid any conflicts with REACH, please make sure that you will be supplied in the future with material manufactured within the European Economic Area (EEA) or imported into the EEA by Evonik Operations GmbH in close cooperation with your European Evonik Operations supplier contact. In case you purchase this product from outside of EEA and plan to import this to EEA, please be aware of your duties according to REACH regulation.

Japan

All components are listed on ENCS (MITI) or exempted.

New Zealand

All components are listed on NZIoC and/or are exempted from registration (non hazardous).

Philippines

All components are listed on PICCS.

South Korea

All components are listed on ECL.

Switzerland

All relevant substances are registered under REACH in EEA, thus the product does not contain new substances according to ChemO SR 813.11.

Taiwan

All components are listed on TCSI.

Turkey

All relevant components are pre-registered in KKDIK.

Product can be exported to Turkey only directly by Evonik.

United Kingdom

The relevant substances are registered.

Product can be exported to UK only directly by Evonik.

USA

All components are listed and have been notified as being "Active" under the requirements of the TSCA Inventory Reset.

Vietnam

All components are approved for NCI inventory.

COUNTRY PRODUCT REGISTERS

Last revision for this chapter was on 2023-09-05

Scandinavian Product Register

Arbejdstilsynet Denmark: not yet registered

Swedish Chemicals Agency (KEMI): A-427324-9

Norwegen Environment Agency: not yet registered

Spanish Poison Center (INTCF)

For registration request please contact us.

FOOD CONTACT STATUS

The business line Coating Additives of Evonik has prioritized certain products for food contact applications. Statements of those specified products which have been evaluated and offer food contact compliances are available in a separate document on our website.

ECOLABEL STATUS

The business line Coating Additives of Evonik has prioritized certain products for ecolabel applications. Statements of those specified products which have been evaluated and offer ecolabel compliances are available in a separate document on our website.

FURTHER REGULATORY INFORMATION REFERRING TO FINAL MATERIALS OR ARTICLES

Last revision for this chapter was on 2022-11-28

DIN EN 71-3 : 2021 (Safety of Toys: Migration of certain elements)

We do not expect the presence of substances mentioned in DIN EN 71-3: 2021 in amounts exceeding the respective limits within TEGO® Flow ZFS 460.

US ASTM - F 693 (Safety of Toys)

We do not expect the presence of substances mentioned in US ASTM - F 693 in amounts exceeding the respective limits within TEGO® Flow ZFS 460.

Maine CHCC (Safety of Toys)

TEGO® Flow ZFS 460 is not compliant to Maine CHCC.

Oregon CHCC (Safety of Toys)

TEGO® Flow ZFS 460 is not compliant to Oregon CHCC.

Vermont CHCC (Safety of Toys)

TEGO® Flow ZFS 460 is not compliant to Vermont CHCC.

Washington State CHCC (Safety of Toys)

TEGO® Flow ZFS 460 is not compliant to Washington State CHCC.

Directive 2011/65/EC (RoHS) amended through Directive (EU) 2015/863

We do not expect the presence of substances mentioned in Directive 2011/65/EC amended through Directive (EU) 2015/863 in amounts exceeding the respective limits within this product.

Council Directive 94/62/EC (packaging and packaging waste)

We do not expect the presence of substances mentioned in Council Directive 94/62/EC in amounts exceeding the respective limits within this product.

Coalition of North Eastern Governors (CONEG)

We do not expect the presence of substances mentioned in CONEG in amounts exceeding the respective limits within this product.

China GB/T39498-2020 (Guidelines for Controlling the Use of Key Chemical Substances in Consumer Products)

Please note, that TEGO® Flow ZFS 460 contains one or more substances, which are mentioned in China GB/T39498-2020.

For details please refer to the chapter Diverse Substances of this document. Please be aware that China GB/T39498-2020 sets limits of substances for the *finished* article.

California Proposition 65

For information regarding the above mentioned regulation please refer to the US-MSDS under point 15.

CERCLA

For information regarding the above mentioned regulation please refer to the US-MSDS under point 15.

SARA 311/312/313

For information regarding the above mentioned regulation please refer to the US-MSDS under point 15.

ADDITIONAL INFORMATION

Biocides Content

Last revision for this chapter was on 2022-11-28

Herewith we confirm that we do not use biocides for TEGO® Flow ZFS 460 preservation.

SVHC substances

We as a supplier of chemical substances or mixtures thereof are obliged to provide our customers with a Safety Data Sheet which includes information, if the product contains dangerous substances in reportable amounts according to EU regulations.

ECHA (European Chemicals Agency) regularly updates its Candidate List of Substances of Very High Concern for Authorization. For information regarding hazardous components of products supplied to you, please refer to our newest EU Safety Data Sheet which will be updated according to the legal obligations.

Volatile Organic Compounds (VOC) / Semi-Volatile Organic Compounds (SVOC)

VOC (volatile organic compounds) - content

Last revision for this chapter was on 2022-11-28

Determination via theoretical calculation: approx. 30 %

SVOC (semi-volatile organic compounds) - content

No data available

Diverse substances

Last revision for this chapter was on 2022-11-28

Unless other stated under "Remarks" we do not expect the presence of the following substances within TEGO® Flow ZFS 460.

If desired substance is not found by name search by substance's CAS #. Use Ctrl + F to search document.

ACRYLATES

Substance	Remarks
BDDA (1,4-Butanediol diacrylate) (CAS# 1070-70-8)	
DEGDA (Diethylene glycol diacrylate) (CAS# 4074-88-8)	
DPGDA (Dipropylene glycol diacrylate) (CAS# 57472-68-1)	
2-EHA (2-Ethyl hexyl acrylate) (CAS# 103-11-7)	
HDDA (1,6-Hexanediol diacrylate) (CAS# 13048-33-4)	
IDA (Isodecyl acrylate) (CAS# 1330-61-6)	
ODA (Octyl acrylate) (CAS# 2499-59-4)	
PETA (Mixtures of pentaerythritol tri and tetra-acrylates) (CAS# 3524-68-3)	
Phenyl acrylate (CAS# 937-41-7)	
Phenoxyethyl acrylate (CAS# 48145-04-6)	
TEGDA (Tetraethylene glycol diacrylate) (CAS# 17831-71-9)	
TMPTA (Trimethylol propane triacrylate) (CAS# 15625-89-5)	

AROMATIC SUBSTANCES

(Please also refer to the section halogenated aromatic substances and flame retardants)

Substance	Remarks
Monocyclic aromatic substances	
- 1,2,4-Trimethylbenzene (CAS# 95-63-6)	
- Alkylphenols (e. g. o-Nonylphenol, o-Phenylphenol)	
- Alkylphenol ethoxylates (APEO)	
- Benzene (CAS# 71-43-2)	
- BHA (Butylated hydroxyanisol) (CAS# 25013-16-5)	
- BHT (Butylated hydroxytoluene) (CAS# 128-37-0)	
- Ethylbenzene (CAS# 100-41-4)	2 - 3 %
- Phenol (CAS# 108-95-2)	
- Primary aromatic amines	
- Styrene (CAS# 100-42-5)	
- Tris (nonylphenyl) phosphite (TNPP) (CAS# 26523-78-4)	
- Toluene (CAS# 108-88-3)	
- Xylene (CAS# 1330-20-7)	8 - 9 %
Bisphenol and derivatives	
- BADGE (Bisphenol A diglycidyl ether) (CAS# 1675-54-3)	
- Bisphenol A (CAS# 80-05-7)	
- Bisphenol F (CAS# 620-92-8)	
- Bisphenol S (CAS# 80-09-1)	
Halogenated aromatic substances	
- 1,2-Dichlorobenzene (CAS# 95-50-1)	
- 1,4-Dichlorobenzene / Paradichlorobenzene (PDCB) (CAS# 106-46-7)	
- PCBTF, Parachlorobenzotrifluoride, (CAS# 98-56-6)	
- Pentachlorophenol (PCP) (CAS# 87-86-5)	
- Polybrominated biphenyls	
- Polybrominated diphenyl ethers	
- Polychlorinated terphenyls (PCT)	
Parabens	
- Paraben (4-Hydroxybenzoic acid) (CAS# 99-96-7)	
- Methylparaben (Methyl-4-hydroxybenzoat) (CAS# 99-76-3)	
- Ethylparaben (Ethyl-4-hydroxybenzoat) (CAS# 120-47-8)	
- Propylparaben (Propyl-4-hydroxybenzoat) (CAS# 94-13-3)	
- Butylparaben (Butyl-4-hydroxybenzoat) (CAS# 94-26-8)	
- Phenylparaben (Phenyl-4-hydroxybenzoat) (CAS# 17696-62-7)	
Benzophenones	
- Benzophenone (CAS# 119-61-9)	
- Benzophenone 12 (CAS# 1843-05-6)	
- Benzophenone-2 (CAS# 131-55-5)	
- Benzophenone-3/Oxybenzon (CAS# 131-57-7)	
- Benzophenone oxide (CAS# 90-47-1)	

Substance	Remarks
Other aromatic substances	
- Anthraquinone (CAS# 84-65-1)	
- Isopropyl-9H-thioxanthen-9-one (CAS# 75081-21-9)	
- Naphtalene (CAS# 91-20-3)	
- PAH (Polycyclic aromatic hydrocarbons)	
- VAH (Volatile aromatic hydrocarbons)	approx. 12 %

BIOBASED FEEDSTOCKS

Substance	Remarks
Components derived from animals	
Components derived from plants	
Components derived from genetically modified organisms (GMO)	

FLAME RETARDANTS

Substance	Remarks
2,2-Bis(chloromethyl)-propane-1,3-diyltetrakis (2-chloroethyl) bisphosphate (CAS# 38051-10-4)	
2-Ethylhexyl-2,3,4,5-tetrabromobenzoate (EHTBB) (CAS# 183658-27-7)	
Bis(2-ethylhexyl) tetrabromophthalate (BEHTBP) (CAS# 26040-51-7)	
Tris (1-chloro-2-propyl) phosphate (TCPP) (CAS# 13674-84-5)	
Tris (1,3-dichloropropyl-2) phosphate (TDCPP) (CAS# 13674-87-8)	
Tris (2-chloroethyl) phosphate (TCEP) (CAS# 115-96-8)	
Triphenyl phosphate (TPP) (CAS# 115-86-6)	
Polybrominated Diphenyl Ethers (PBDEs)	
- DecaBDE (CAS# 1163-19-5)	
- OctaBDE (CAS# 32536-52-0)	
- PentaBDE (CAS# 32534-81-9)	

GLYCOL ETHERS

Substance	Remarks
BDGA (Butyl diglycol acetate) (CAS# 124-17-4)	
EGBE (Ethylene glycol butyl ether) (CAS# 111-76-2)	
EGDEE (Ethylene glycol di-ethyl ether) (CAS# 629-14-1)	
EGDME (Ethylene glycol di-methyl ether) (CAS# 110-71-4)	
EGEE (Ethylene glycol ethyl ether) (CAS# 110-80-5)	
EGEEA (Ethylene glycol ethyl ether acetate) (CAS# 111-15-9)	
EGME (Ethylene glycol methyl ether) (CAS# 109-86-4)	
EGMEA (Ethylene glycol methyl ether acetate) (CAS# 110-49-6)	
DEGDME (Di-ethylene glycol di-methyl ether) (CAS# 111-96-6)	
DEGME (Di-ethylene glycol methyl ether) (CAS# 111-77-3)	
TEGDME (Tri-ethylene glycol di-methyl ether) (CAS# 112-49-2)	

HALOGENATED ORGANIC SUBSTANCES

(Please also refer to the chapter halogenated aromatic substances and flame retardants)

Substance	Remarks
Brominated substances	
Chlorinated substances (e. g. Shortchain chlorinated paraffins, PVC (Polyvinylchloride) (CAS# 9002-86-2), Tetrachloroethylene (CAS# 127-18-4), Vinyl chloride (CAS# 75-01-4), Polyvinylidene chloride (CAS# 9002-85-1))	
Fluorinated substances (e.g. polyfluorinated substances (PFAS), perfluorinated alkylsulfonates (PFAS), perfluorinated carboxylic acids (PFCA), fluorinated greenhouse gases)	
Halogenated hydro carbons (Group 1-9 according Regulation (EC) No 1005/2009 (substances that deplete the ozone layer) - status September 2009)	

(HEAVY) METALS AND THEIR COMPOUNDS

Substance	Remarks
Aluminum	
Antimony (e. g. Antimony oxide)	
Arsenic	
Barium	
Boron	
Cadmium	
Chromium (III)	
Chromium (VI)	
Cobalt	
Copper	
Lead	
Manganese	
Mercury	
Nickel	
Selenium	
Silver	
Strontium	
Tin (e. g. Tin organic compounds)	
Zinc (e. g. Zinc oxide (CAS# 1314-13-2))	

OPTICAL BRIGHTENERS

Substance	Remarks
1,2-Di(5-methyl-benziasoly)ethylene (CAS# 12224-12-3)	
1,4-Bis(2-cyanostyryl)benzene (CAS# 13001-39-3)	
1,4-Bis(4-cyanostyryl)benzene (CAS# 12001-40-6)	
1,4-Bis-Benzoxazolyl-naphthalene (CAS# 5089-22-5)	
1,4-Di[4-cyanostyryl]benzene (CAS# 58449-88-0)	
2,2'-(1,2-ethenediyl)bis(4,1-phenylene)bisbenzoxazole (CAS# 1533-45-5)	
2,2'-(2,5-thiophenediyl)bis(5-tert-butylbenzoxazole) (CAS# 7128-64-5)	
4,4-Bis(2-methoxystyryl)biphenyl (CAS# 40470-68-6)	
4,4'-Diamino-2,2'-stilbenedisulfonic acid (CAS# 81-11-8)	
4-(4-cyanostyryl)benzene (CAS# 13001-38-2)	
Benzenesulfonic acid,2,2'-(1,2-ethenediyl)bis[5-4-[bis(2-hydroxyethyl)amino]-6-{(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-, tetrasodium salt (CAS# 16470-24-9)	
Bis(5-methyl-2-benzoxazolyl)stilbene (CAS# 2397-00-4)	
Diphenylethylene triazine (CAS# 12768-92-2)	
Disodium 4,4'-bis (2-sulfo styryl) biphenyl (CAS# 27344-41-8)	
Distyryl biphenyl (DSBP) (CAS# 54227-96-2)	
Umbelliferone (CAS# 93-35-6)	

PHTHALATES

Substance	Remarks
BBP (Benzyl butyl phthalate) (CAS# 85-68-7)	
DAP (Diallyl phthalate) (CAS# 131-17-9)	
DBP (Dibutyl phthalate) (CAS# 84-74-2)	
DCHP (Dicyclohexyl phthalate) (CAS# 84-61-7)	
DEHP (Di-2-ethylhexyl phthalate) (CAS# 117-81-7)	
DHNUP (Di-C7-11-branched alkylphthalates)	
DHP (Di-n-hexylphthalate) (CAS# 84-75-3)	
DIBP (Diisobutyl phthalate) (CAS# 84-69-5)	
DIDP (Diisodecyl phthalate) (CAS# 26761-40-0)	
DIHP (Di-C6-8-branched alkylphthalates)	
DINP (2-Diisononyl phthalate) (CAS# 28553-12-0)	
DMEP (Bis-(2-methoxyethyl) phthalate) (CAS# 117-82-8)	
DNOP (Di-n-octyl phthalate) (CAS# 117-84-0)	
DPENP (Di-n-pentyl phthalate) (CAS# 131-18-0)	

PLASTICIZERS

(Please also refer to the chapter PHTHALATES)

Substance	Remarks
Chlorinated naphthalenes	
Chlorinated paraffines (CAS# 85535-85-9, 85535-84-8)	
Monocresyl phosphate (CAS# 14265-44-2)	
Monocresyl diphenyl phosphate (CAS# 26444-49-5)	
Tricresyl phosphate (CAS# 1330-78-5)	

OTHERS

Substance	Remarks
2,4 Diethylthioxanthone (CAS# 82799-44-8)	
Acetaldehyde (CAS# 75-07-0)	
Allergenic Fragrances (EG 1223/2009, Article 19)	
Ammonium nitrate (CAS# 6484-52-2)	
Asbestos	
Azo Dyes	
Crystalline silica and leucophyllite minerals containing crystalline silica	
Cyanuric acid (CAS# 108-80-5)	
Diacetone alcohol (CAS# 123-42-2)	
Dimethyl fumarate (CAS# 624-49-7)	
DMF (Dimethylformamide) (CAS# 68-12-2)	
Ethanol (CAS# 64-17-5)	
Food Allergens (EU Reg. 1169/2011)	
Formaldehyde (CAS# 50-00-0)	< 0.05 %
HAP (Hazardous air pollutant) according to U.S. EPA Clean Air Act Section 112(b)(1)	approx. 12 %
IPBC (3-Iodo-2-propynyl butylcarbamate) (CAS# 55406-53-6)	
Isocyanates	
Methanol (CAS# 67-56-1)	
Melamine (CAS# 108-78-1)	
Mineral oil	
Nanomaterials (according to Recommendation 2011/696/EU)	
Natural rubber or dry rubber latex	
Nitrosamines	
N-(3-aminopropyl)-N-dodecylpropane-1, 3-diamine (CAS# 2372-82-9)	
NMP (N-methyl-2-pyrrolidone) (CAS# 872-50-4)	
Ozone-Depleting Substances according U.S. EPA list, Class I and Class II	
Pentane-2,4-dione (CAS# 123-54-6)	
Persistent Organic Pollutants (POPs) according to Stockholm Convention	
PIC substances according to Rotterdam Convention	
Pesticides, which are not mentioned in the chapter Biocides	
Photo-initiators	
Pigments	
Quaternary ammonium salts	
Radioactive substances	
Rare earth metals	
Sodium sulfite (CAS# 7757-83-7)	
Talc (CAS# 14807-96-9)	
Titanium dioxide	

FURTHER INFORMATION

OTHER REGULATIONS

For the following Regulation detailed information are available on request.

- Conflict Minerals

Should you require any additional information regarding the regulatory status of TEGO® Flow ZFS 460, please do not hesitate to contact us!

Disclaimer

The information given above is based on and represents our current compositional knowledge (based on the knowledge of the production process, supplier information for raw materials and analytical data where applicable).

Please note that Evonik Operations GmbH does not analyse whether the mentioned substances are contained, because the content of such substances is not part of our product specification or formulation.

We use raw materials of technical purity, therefore negligible amounts on the level of natural / technical impurities cannot be excluded.

In case of provided values these are considered to be typical concentrations and are not part of the product specification.

All provided information is based on our present knowledge and experience and is true and complete to the best of our knowledge and belief. However, no warranty, whether expressed or implied, or guarantee of product properties in the legal sense is intended or implied.

In case of any questions concerning the provided information or if you need additional advice you are welcome to contact us:

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