SAFETY DATA SHEET





SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation

Helios Support

of the mixture

Registration number

Synonyms None.

Issue date 16-May-2019

Version number 01

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses3D printer filamentUses advised againstNone known.1.3. Details of the supplier of the safety data sheet

Supplier

Company name Formfutura BV

Address Groenestraat 215, 6531 HH Nijmegen, The Netherlands

Telephone +31 (0)85 743 4000 (Office hours Mo. - Fr. 09:00 - 17:00 CET)

Contact person Product Compliance

e-mail product.compliance@formfutura.com

1.4. Emergency telephone

number

+31 (0)30 274 8888, only for the doctor

National Poison Information Center Utrecht, The Netherlands

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary Not available.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms None.

Signal word None.

Hazard statements The mixture does not meet the criteria for classification.

Precautionary statements

PreventionNot available.ResponseNot available.StorageNot available.DisposalNot available.

Supplemental label information None.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name % CAS-No. / EC No. REACH Registration No. Index No. Notes

Polyvinyl alcohol compound 80 - < 90 Proprietary

Classification: -



Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes		
methanol (impurity)	<= 1	67-56-1 200-659-6	-	603-001-00-X	#		
Classification:	Flam. Liq. 2;H225, Acu SE 1;H370	Flam. Liq. 2;H225, Acute Tox. 3;H301, Acute Tox. 3;H311, Acute Tox. 3;H331, STOT SE 1;H370					
Styrene	< 0,1	100-42-5 202-851-5	-	601-026-00-0			
Classification:			rit. 2;H315, Eye Irrit. 2;H319 STOT RE 1;H372, Aquatic 0		D		

Other components below reportable 10 - < 20

levels

The full text for all H-statements is displayed in section 16. Composition comments

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

4.1. Description of first aid measures

Inhalation Not likely, due to the form of the product. If exposed to excessive levels of dusts or fumes, remove

to fresh air and get medical attention if cough or other symptoms develop.

Skin contact If burned by contact with hot material, cool molten material adhering to skin as quickly as possible

with water, and see a physician for removal of adhering material and treatment of burn. Do not

peel polymer from the skin.

Not likely, due to the form of the product. If hot product contacts eye, flush with water for at least Eye contact

15 minutes and seek medical attention immediately.

Not likely, due to the form of the product. Ingestion

4.2. Most important symptoms and effects, both acute and

delayed

Exposure may cause temporary irritation, redness, or discomfort.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective

equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting

procedures

Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the For emergency responders

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Sweep up or vacuum up spillage and collect in suitable container for disposal.

For waste disposal, see section 13 of the SDS.

6.4. Reference to other

sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.



SECTION 7: Handling and storage

7.1. Precautions for safe

Avoid prolonged exposure. Observe good industrial hygiene practices.

handling

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the

SDS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Components	e (GwV), BGBI. II, no. 184/2001 Type	Value
methanol (impurity) (CAS 67-56-1)	MAK	260 mg/m3
,		200 ppm
	STEL	1040 mg/m3
		800 ppm
Styrene (CAS 100-42-5)	MAK	85 mg/m3
		20 ppm
	STEL	340 mg/m3
		80 ppm
Belgium. Exposure Limit Values.		
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	STEL	333 mg/m3
		250 ppm
	TWA	266 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	216 mg/m3
		100 ppm
	TWA	108 mg/m3
		25 ppm
	on protection of workers aga Type	inst risks of exposure to chemical agents at work Value
Components methanol (impurity) (CAS		
Components methanol (impurity) (CAS	Туре	Value
Components methanol (impurity) (CAS 67-56-1)	Туре	Value 260 mg/m3
Bulgaria. OELs. Regulation No 13 Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5)	Type TWA	Value 260 mg/m3 200 ppm
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5)	Type TWA STEL TWA	Value 260 mg/m3 200 ppm 215 mg/m3
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS	Type TWA STEL TWA xposure Limit Values in the We	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 prkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E	Type TWA STEL TWA xposure Limit Values in the Wo	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 orkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS	Type TWA STEL TWA xposure Limit Values in the Wo	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 orkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/Value 260 mg/m3
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS 67-56-1)	Type TWA STEL TWA xposure Limit Values in the Wo Type MAC	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 prkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/ Value 260 mg/m3 200 ppm
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS 67-56-1)	Type TWA STEL TWA xposure Limit Values in the Wo Type MAC	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 orkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/ Value 260 mg/m3 200 ppm 430 mg/m3
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS 67-56-1)	Type TWA STEL TWA xposure Limit Values in the Wo Type MAC MAC	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 Prkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/ Value 260 mg/m3 200 ppm 430 mg/m3 100 ppm
methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5)	Type TWA STEL TWA xposure Limit Values in the We Type MAC MAC STEL	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 prkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/value 260 mg/m3 200 ppm 430 mg/m3 100 ppm 1080 mg/m3
Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Croatia. Dangerous Substance E. Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Cyprus. OELs. Control of factory	Type TWA STEL TWA xposure Limit Values in the We Type MAC MAC STEL stmosphere and dangerous se	Value 260 mg/m3 200 ppm 215 mg/m3 85 mg/m3 prkplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/value 260 mg/m3 200 ppm 430 mg/m3 100 ppm 1080 mg/m3 250 ppm



Czech Republic. OELs. (Components	Туре	Value
methanol (impurity) (CAS	Ceiling	1000 mg/m3
67-56-1)	TWA	250 mg/m3
Styrene (CAS 100-42-5)	Ceiling	400 mg/m3
, , , , , , , , , , , , , , , , , , ,	TWA	100 mg/m3
Name and Anna access to the		.cc mgc
Denmark. Exposure Lim Components	Type	Value
nethanol (impurity) (CAS	TLV	260 mg/m3
37-56-1)		222
(0.10.100.10.5)	0 ""	200 ppm
Styrene (CAS 100-42-5)	Ceiling	105 mg/m3
		25 ppm
stonia. OELs. Occupati 001)	onal Exposure Limits of Hazardous Sub	ostances. (Annex of Regulation No. 293 of 18 Septen
Components	Туре	Value
nethanol (impurity) (CAS 7-56-1)	STEL	350 mg/m3
. 55 1)		250 ppm
	TWA	250 mg/m3
		200 ppm
tyrene (CAS 100-42-5)	STEL	200 mg/m3
		50 ppm
	TWA	90 mg/m3
		20 ppm
inland. Workplace Exp	osure Limits	•
Components	Туре	Value
nethanol (impurity) (CAS 17-56-1)	STEL	330 mg/m3
,		250 ppm
	TWA	270 mg/m3
		200 ppm
tyrene (CAS 100-42-5)	STEL	430 mg/m3
		100 ppm
	TWA	86 mg/m3
		20 ppm
		- 11
rance. Threshold Limit	Values (VLEP) for Occupational Exposu	re to Chemicals in France, INRS ED 984
	Values (VLEP) for Occupational Exposu Type	
components nethanol (impurity) (CAS		re to Chemicals in France, INRS ED 984
France. Threshold Limit Components nethanol (impurity) (CAS 7-56-1) Regulatory status:	Туре	re to Chemicals in France, INRS ED 984 Value
enethanol (impurity) (CAS 7-56-1)	Type VLE	re to Chemicals in France, INRS ED 984 Value
nethanol (impurity) (CAS 7-56-1)	Type VLE	value 1300 mg/m3
nethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status:	Type VLE Indicative limit (VL) Indicative limit (VL) VME	value 1300 mg/m3
components nethanol (impurity) (CAS 7-56-1) Regulatory status:	Type VLE Indicative limit (VL) Indicative limit (VL)	1300 mg/m3 1000 ppm 260 mg/m3
nethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status: Regulatory status:	Type VLE Indicative limit (VL) Indicative limit (VL) VME Regulatory binding (VRC)	value 1300 mg/m3 1000 ppm
nethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status: Regulatory status: Regulatory status:	Type VLE Indicative limit (VL) Indicative limit (VL) VME Regulatory binding (VRC) Regulatory binding (VRC)	1300 mg/m3 1000 ppm 260 mg/m3 200 ppm
rethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status: Regulatory status: Regulatory status: tyrene (CAS 100-42-5)	Type VLE Indicative limit (VL) Indicative limit (VL) VME Regulatory binding (VRC) Regulatory binding (VRC) VLE	1300 mg/m3 1000 ppm 260 mg/m3
nethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status: Regulatory status: Regulatory status:	Type VLE Indicative limit (VL) Indicative limit (VL) VME Regulatory binding (VRC) Regulatory binding (VRC)	1300 mg/m3 1000 ppm 260 mg/m3 200 ppm
rethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status: Regulatory status: Regulatory status: tyrene (CAS 100-42-5) Regulatory status:	Type VLE Indicative limit (VL) Indicative limit (VL) VME Regulatory binding (VRC) Regulatory binding (VRC) VLE Indicative limit (VL)	1300 mg/m3 1000 ppm 260 mg/m3 200 ppm
components nethanol (impurity) (CAS 7-56-1) Regulatory status: Regulatory status: Regulatory status: Regulatory status: Styrene (CAS 100-42-5)	Type VLE Indicative limit (VL) Indicative limit (VL) VME Regulatory binding (VRC) Regulatory binding (VRC) VLE	1300 mg/m3 1000 ppm 260 mg/m3 200 ppm

23,3 ppm

Regulatory status: Indicative limit (VL)

in the Work Area (DFG) Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	TWA	130 mg/m3
		100 ppm
Styrene (CAS 100-42-5)	TWA	86 mg/m3
		20 ppm
Germany. TRGS 900, Limit Value Components	s in the Ambient Air at the Workplace Type	Value
methanol (impurity) (CAS 67-56-1)	AGW	270 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	AGW	86 mg/m3
		20 ppm
Greece. OELs (Decree No. 90/199	9, as amended)	
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	STEL	325 mg/m3
		250 ppm
	TWA	260 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	1050 mg/m3
		250 ppm
	TWA	425 mg/m3
		100 ppm
Hungary. OELs. Joint Decree on Components	Chemical Safety of Workplaces Type	Value
methanol (impurity) (CAS	TWA	260 mg/m3
67-56-1)	144/1	200 mg/mo
Styrene (CAS 100-42-5)	STEL	50 mg/m3
	TWA	50 mg/m3
Iceland. OELs. Regulation 154/19	99 on occupational exposure limits	
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	105 mg/m3
		25 ppm
reland. Occupational Exposure L	imits	
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	170 mg/m3
Styrene (CAS 100-42-5)		-
Stylene (CAS 100-42-5)		40 ppm
Styrene (CAS 100-42-3)	TWA	40 ppm 85 mg/m3



20 ppm

Italy. Occupational Exposure Limit Components	s Type	Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	40 ppm
	TWA	20 ppm
Latvia. OELs. Occupational exposu Components	re limit values of chemical s Type	substances in work environment Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	30 mg/m3
	TWA	10 mg/m3
Lithuania. OELs. Limit Values for C Components	hemical Substances, Gener Type	al Requirements Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Styrene (CAS 100-42-5)	STEL	200 mg/m3
		50 ppm
	TWA	90 mg/m3
		20 ppm
Luxembourg. Binding Occupationa	l exposure limit values (Ann	ex I), Memorial A
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Schedules I and V)	re Limit Values (L.N. 227. of	Occupational Health and Safety Authority Act (CAP. 424),
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3
		200 ppm
Netherlands. OELs (binding)		
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	TWA	133 mg/m3
Norway. Administrative Norms for Components	Contaminants in the Workpl Type	ace Value
methanol (impurity) (CAS 67-56-1)	TLV	130 mg/m3
		100 ppm
Styrene (CAS 100-42-5)	TLV	105 mg/m3
		25 ppm
intensities of harmful health factors	s in the work environment, J	
Components	Туре	Value
methanol (impurity) (CAS 67-56-1)	STEL	300 mg/m3
	TWA	100 mg/m3
Styrene (CAS 100-42-5)	STEL	100 mg/m3
	TWA	50 mg/m3



Portugal. OELs. Decree-Law n. 29 Components	Туре	Value	
nethanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3	
7-30-1)		200 ppm	
Portugal. VLEs. Norm on occupa Components	tional exposure to chemical aç Type	ents (NP 1796) Value	
nethanol (impurity) (CAS	STEL	250 ppm	
67-56-1)	TWA	200 ppm	
Styrene (CAS 100-42-5)	STEL	40 ppm	
5,5,16,16 (6,16 166 12 6)	TWA	20 ppm	
Romania. OELs. Protection of wo	orkers from exposure to chemi		
Components	Туре	Value	
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3	
55 1)		200 ppm	
Styrene (CAS 100-42-5)	STEL	150 mg/m3	
·		35 ppm	
	TWA	50 mg/m3	
		12 ppm	
Slovakia. OELs. Regulation No. 3	00/2007 concerning protection	of health in work with chemical agents	
Components	Туре	Value	
nethanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3	
,		200 ppm	
Styrene (CAS 100-42-5)	STEL	200 mg/m3	
		50 ppm	
	TWA	90 mg/m3	
		20 ppm	
		against risks due to exposure to chemicals wh	ile worki
Official Gazette of the Republic of Components	of Slovenia) Type	Value	
· · · · · · · · · · · · · · · · · · ·	. 76-5		
nethanol (impurity) (CAS	TWA	260 mg/m3	
	TWA	260 mg/m3	
	TWA	260 mg/m3 200 ppm	
37-56-1)	TWA	·	
37-56-1)		200 ppm	
67-56-1) Styrene (CAS 100-42-5) Spain. Occupational Exposure Li	TWA mits	200 ppm 86 mg/m3 20 ppm	
67-56-1) Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components	TWA	200 ppm 86 mg/m3	
S7-56-1) Styrene (CAS 100-42-5) Spain. Occupational Exposure Licomponents methanol (impurity) (CAS	TWA mits Type	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3	
S7-56-1) Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components methanol (impurity) (CAS S7-56-1)	TWA mits Type TWA	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm	
S7-56-1) Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components methanol (impurity) (CAS S7-56-1)	TWA mits Type	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3	
Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components methanol (impurity) (CAS 67-56-1)	TWA mits Type TWA STEL	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm	
S7-56-1) Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components methanol (impurity) (CAS S7-56-1)	TWA mits Type TWA	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm 86 mg/m3	
Styrene (CAS 100-42-5) Spain. Occupational Exposure Licomponents methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5)	TWA Type TWA STEL TWA	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm 86 mg/m3 20 ppm	
Styrene (CAS 100-42-5) Spain. Occupational Exposure Licomponents methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Sweden. OELs. Work Environments	TWA Type TWA STEL TWA	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm 86 mg/m3	
Components methanol (impurity) (CAS	TWA mits Type TWA STEL TWA nt Authority (AV), Occupationa	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm 86 mg/m3 20 ppm	
Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Sweden. OELs. Work Environme Components	TWA mits Type TWA STEL TWA nt Authority (AV), Occupationa Type	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm 86 mg/m3 20 ppm I Exposure Limit Values (AFS 2015:7) Value 350 mg/m3	
Styrene (CAS 100-42-5) Spain. Occupational Exposure Li Components methanol (impurity) (CAS 67-56-1) Styrene (CAS 100-42-5) Sweden. OELs. Work Environments methanol (impurity) (CAS	TWA mits Type TWA STEL TWA nt Authority (AV), Occupationa Type	200 ppm 86 mg/m3 20 ppm Value 266 mg/m3 200 ppm 172 mg/m3 40 ppm 86 mg/m3 20 ppm I Exposure Limit Values (AFS 2015:7) Value	

Components	Туре	Value	
		200 ppm	
Styrene (CAS 100-42-5)	STEL	86 mg/m3	
		20 ppm	
	TWA	43 mg/m3	
		10 ppm	
Switzerland. SUVA Grenzwerte a	m Arbeitsplatz		
Components	Туре	Value	
methanol (impurity) (CAS 67-56-1)	STEL	1040 mg/m3	
		800 ppm	
	TWA	260 mg/m3	
		200 ppm	
Styrene (CAS 100-42-5)	STEL	170 mg/m3	
		40 ppm	
	TWA	85 mg/m3	
		20 ppm	
UK. EH40 Workplace Exposure L	imits (WELs)		
Components	Туре	Value	
methanol (impurity) (CAS 67-56-1)	STEL	333 mg/m3	
		250 ppm	
	TWA	266 mg/m3	
		200 ppm	
Styrene (CAS 100-42-5)	STEL	1080 mg/m3	
		250 ppm	
	TWA	430 mg/m3	
		100 ppm	
EU. Indicative Exposure Limit Va Components	lues in Directives 91/322/EEC, Type	2000/39/EC, 2006/15/EC, 2009/161/EU Value	
methanol (impurity) (CAS 67-56-1)	TWA	260 mg/m3	

Biological limit values

Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)

Components	Value	Determinant	Specimen	Sampling Time
methanol (impurity) (CAS 67-56-1)	7 mg/g	Methanol	Creatinine in urine	*
	24,7 mmol/mol	Methanol	Creatinine in urine	*
Styrene (CAS 100-42-5)	20 μg/l	Styrene	Blood	*
	1 g/g	Mandelic acid	Creatinine in urine	*
	240 mg/g	Phenylglyoxylic acid	Creatinine in urine	*
	0,18 mol/mol	Phenylglyoxylic acid	Creatinine in urine	*
	1,66 nmol/l	Styrene	Mixed exhaled air	*
	40 ppm	Styrene	Mixed exhaled air	*
	18 ppm	Styrene	Mixed exhaled air	*

200 ppm



Components	Value	Determinant	Specimen	Sampling Time	
	0,75 umol/l	Styrene	Mixed exhaled air	*	
	0,19 umol/l	Styrene	Blood	*	

^{* -} For sampling details, please see the source document.

Czech Republic. Limit Values for Indictators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.

Components	Value	Determinant	Specimen	Sampling Time
methanol (impurity) (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
	0,47 mmol/l	Methanol	Urine	*
Styrene (CAS 100-42-5)	300 µmol/mmol	Mandelic acid	Creatinine in urine	*
	400 mg/g	Mandelic acid	Creatinine in urine	*

^{* -} For sampling details, please see the source document.

Finland. HTP-arvot, App : Components	2., Biological Limit Value	Values, (BRA/BGV) , S Determinant	Social Affairs a Specimen	nd Ministry of Health Sampling Time	
Styrene (CAS 100-42-5)	1,2 mmol/l	MAPGA (mandelic acid plus phenylglyoxylic acid)	Urine	*	

^{* -} For sampling details, please see the source document.

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Components	Value	Determinant	Specimen	Sampling Time	
methanol (impurity) (CAS 67-56-1)	15 mg/l	Méthanol	Urine	*	
Styrene (CAS 100-42-5)	240 mg/g	Acide phénylglyoxyliq ue	Creatinine in urine	*	
	100 mg/g	Acide phénylglyoxyliq ue	Creatinine in urine	*	
	0,55 mg/l	Styréne	Venous blood	*	
	0,02 mg/l	Styréne	Venous blood	*	

^{* -} For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling Time
methanol (impurity) (CAS 67-56-1)	30 mg/l	Methanol	Urine	*
Styrene (CAS 100-42-5)	600 mg/g	Mandelsäure plus Phenylglyoxyls äure	Creatinine in urine	*

^{* -} For sampling details, please see the source document.

Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices

Components	Value	Determinant	Specimen	Sampling Time
Styrene (CAS 100-42-5)	1000 mg/g	mandelic acid	Creatinine in urine	*
	740 µmol/mmol	mandelic acid	Creatinine in urine	*

^{* -} For sampling details, please see the source document.



Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

Components	Value	Determinant	Specimen	Sampling Time
methanol (impurity) (CAS 67-56-1)	20 mg/g	Methanol	Creatinine in urine	*
	30 mg/l	Methanol	Urine	*
Styrene (CAS 100-42-5)	600 mg/g	Mandelic acid plus phenylglyoxylic acid	Creatinine in urine	*
	901 mg/l	Mandelic acid plus phenylglyoxylic acid	Urine	*

^{* -} For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4					
Components	Value	Determinant	Specimen	Sampling Time	
methanol (impurity) (CAS 67-56-1)	15 mg/l	Metanol	Urine	*	
Styrene (CAS 100-42-5)	400 mg/g	Ácido mandélico más ácido fenilglioxílico	Creatinine in urine	*	
	0,2 mg/l	Estireno	Venous blood	*	

^{* -} For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)				
Components	Value	Determinant	Specimen	Sampling Time
nethanol (impurity) (CAS 17-56-1)	30 mg/l	Methanol	Urine	*
tyrene (CAS 100-42-5)	600 mg/g	Mandelsäure plus Phenyl-glyoxyls äure	Creatinine in urine	*

^{* -} For sampling details, please see the source document.

Recommended	monitoring
procedures	

Follow standard monitoring procedures.

Derived no effect levels (DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

8.2. Exposure controls

Appropriate engineering

controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in

discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material

and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.



Environmental exposure controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Solid.

Form filament

Colour Natural colour.

Odour Slight.

Odour threshold Not available. pH Not available.

Melting point/freezing point 150 - 230 °C (302 - 446 °F)

Initial boiling point and boiling

range

Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

(%)

Not available.

Vapour pressureNot available.Vapour densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Soluble

Partition coefficient

cient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.Explosive propertiesNot explosive.Oxidising propertiesNot oxidising.

9.2. Other information

Density 1,19 - 1,31 g/cm³

SECTION 10: Stability and reactivity

10.1. ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with

incompatible materials.

10.5. Incompatible materials Strong oxidising agents.

10.6. Hazardous No hazardous decomposition products are known.

decomposition products

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contactBased on available data, the classification criteria are not met. **Eye contact**Based on available data, the classification criteria are not met.



Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of

occupational exposure.

Symptoms Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

Acute toxicity Not known.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye

irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisationBased on available data, the classification criteria are not met.Skin sensitisationBased on available data, the classification criteria are not met.Germ cell mutagenicityBased on available data, the classification criteria are not met.CarcinogenicityBased on available data, the classification criteria are not met.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicityBased on available data, the classification criteria are not met. **Specific target organ toxicity -**Based on available data, the classification criteria are not met.

Specific target organ toxicity -

single exposure

Specific target organ toxicity -

Based on available data, the classification criteria are not met.

repeated exposure

repeated exposure
Aspiration hazard

Based on available data, the classification criteria are not met.

Mixture versus substance

information

No information available.

Other information This product has no known adverse effect on human health.

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and

degradability

No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB

assessment

Not a PBT or vPvB substance or mixture.

12.6. Other adverse effectsNo other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste codeThe Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special precautionsDispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.



14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP

Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation

(EC) No 1907/2006, as amended.

National regulations Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as

amended.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under

Sections 2 to 15

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H304 May be fatal if swallowed and enters airways.

H311 Toxic in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation.

H331 Toxic if inhaled.



H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H361d Suspected of damaging the unborn child.

H370 Causes damage to organs.

H372 Causes damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Revision information

Training information

None.

Follow training instructions when handling this material.

Disclaimer

This safety data sheet (SDS) is issued based on the latest reference, data etc currently available. The information in this SDS has been carefully assessed, but no guarantee is given for its accuracy. We cannot anticipate all conditions under which this product may be used. It is the user's responsibility to take appropriate safety measures for handling.

