SAFETY DATA SHEET

Version #: 03

Issue date: 06-27-2023 Revision date: 08-02-2023 Supersedes date: 07-12-2023

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

1.1. Product identifier

Trade name or designation

of the mixture

Plexus MA420 (AO420) Adhesive

Registration number

Synonyms None. SKU# IT102

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

Identified usesNot available.Uses advised againstNone known.

1.3. Details of the supplier of the safety data sheet

Company Name ITW Performance Polymers

Address Bay 150

Shannon Industrial Estate

Co. Clare Ireland V14 DF82

Contact Person Customer Service
Telephone Number 353(61)771500

353(61)471285

Email customerservice.shannon@itwpp.com

Emergency Phone Number 44(0) 1235 239 670 (24 hours)

1.4. Emergency telephone number

General in EU 112 (Available 24 hours a day. SDS/Product information may not be available for

the Emergency Service.)

Austria National Poisons

Information Center

+431 406 4343 (Available 24 hours a day. SDS/Product information may not be

available for the Emergency Service.)

Belgium National Poisons

Control Center

070 245 245 (Available 24 hours a day. SDS/Product information may not be

available for the Emergency Service.)

Bulgaria National

Toxicological Information

Center

+359 2 9154 233 (Available 24 hours a day. SDS/Product information may not be

available for the Emergency Service.)

Croatia Poisons Information Center

+385 1 2348 342 (Hours of operation not provided. SDS/Product information may

not be available for the Emergency Service.)

Cyprus Poison Center 1401 (Available 24 hours a day. SDS/Product information may not be available

for the Emergency Service.)

Czech Republic National Poisons Information

Center

+420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Denmark National Poisons

Control Center

+45 82 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Estonia National Poisons Information Center

16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be

available for the Emergency Service.)

Finland National Poison Information Center

(09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

France National Poisons Control Center ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Material name: Plexus MA420 (AO420) Adhesive

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1.4. Emergency telephone number

Greece Poison Information Centre

(0030) 2107793777 (Available 24 hours a day. SDS/Product information may not

be available for the Emergency Service.)

Hungary National Emergency Phone Number +36-80-201-199 (Available 24 hours a day. SDS/Product information may not be

available for the Emergency Service.)

Iceland Poison Center

(+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be

available for the Emergency Service.)

Latvia Emergency medical

aid

+371 67042473 (Available 24 hours a day. SDS/Product information may not be

Latvia Poison and Drug Information Center Lithuania Neatidėliotina

available for the Emergency Service.) +370 5 236 20 52 or +37068753378 (Hours of operation not provided.

informacija apsinuodijus Malta Accident and **Emergency Department**

SDS/Product information may not be available for the Emergency Service.)

Netherlands National Poisons Information

2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)

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Center (NVIC) **Norway Norwegian Poison Information Center**

22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Portugal Poison Center

800 250 250 (Available 24 hours a day. SDS/Product information may not be

available for the Emergency Service.)

Romania Biroul RSI si Informare Toxicologica 021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be

available for the Emergency Service.)

Slovakia National Toxicological Information Center

+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not

be available for the Emergency Service.)

Spain Toxicology Information Service + 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not

be available for the Emergency Service.)

Sweden National Poison Information Center

112 - and ask for Poison Information (Available 24 hours a day. SDS/Product

information may not be available for the Emergency Service.)

Switzerland Tox Info Suisse

145 (Available 24 hours a day. SDS/Product information may not be available for

the Emergency Service.)

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

Physical hazards

Flammable liquids Category 2 H225 - Highly flammable liquid and

vapor.

Health hazards

Skin corrosion/irritation Category 2 H315 - Causes skin irritation. Serious eye damage/eye irritation H318 - Causes serious eye Category 1

damage.

Skin sensitization Category 1 H317 - May cause an allergic skin

reaction.

Specific target organ toxicity - single Category 3 respiratory tract irritation H335 - May cause respiratory

exposure

irritation.

2.2. Label elements

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

methacrylic acid; 2-methylpropenoic acid, methyl methacrylate; methyl 2-methylprop-2-enoate; Contains:

methyl 2-methylpropenoate

Hazard pictograms



Signal word Danger

Hazard statements

H225	Highly flammable liquid and vapor.
11045	Causes akin irritation

Causes skin irritation. H315

May cause an allergic skin reaction. H317 Causes serious eye damage. H318 May cause respiratory irritation. H335

Precautionary statements

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P210

Keep container tightly closed. P233

Keep cool. P235

Ground and bond container and receiving equipment. P240 Use explosion-proof electrical/ventilating/lighting equipment. P241

Use non-sparking tools. P242

Take action to prevent static discharges. P243

Avoid breathing mist/vapors. P261 Wash thoroughly after handling. P264

Use only outdoors or in a well-ventilated area. P271

Contaminated work clothing should not be allowed out of the workplace. P272

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P280

Response

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

IF INHALED: Remove person to fresh air and keep comfortable for breathing. P304 + P340

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present P305 + P351 + P338

and easy to do. Continue rinsing

Immediately call a POISON CENTER/doctor. P310

If skin irritation or rash occurs: Get medical advice/attention. P333 + P313 Take off contaminated clothing and wash it before reuse. P362 + P364 In case of fire: Use appropriate media to extinguish. P370 + P378

Storage

Store in a well-ventilated place. Keep container tightly closed. P403 + P233

Store in a well-ventilated place. Keep cool. P403 + P235

Store locked up. P405

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations. P501

Supplemental label information None.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

0110141 111101111411011					
Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl	60 - < 70	80-62-6 201-297-1	01-2119452498-28-0000	607-035-00-6	#
2-methylpropenoate					
Classification	ı: Flam. Liq. :	2;H225, Skin Irrit. 2;H	ન315, Skin Sens. 1;H317, Sે	TOT SE	

3:H335

Specific Concentration Limits: STOT SE 3;H335: C ≥ 10 %

methacrylic acid; 2-methylpropenoic 79-41-4 01-2119463884-26-0000 607-088-00-5 3 - < 5201-204-4 acid

Classification: Acute Tox. 4;H302;(ATE: 500 mg/kg bw), Acute Tox. 4;H312;(ATE: 1100

mg/kg bw), Acute Tox. 3;H331;(ATE: 7,10000000000000 mg/l), Skin

Corr. 1A;H314, Eye Dam. 1;H318, STOT SE 3;H335

Specific Concentration Limits: STOT SE 3;H335: C ≥ 1 %

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

99-97-8 N,N-dimethyl-p-toluidine; [1] < 1 202-805-4 N,N-dimethyl-m-toluidine; [2]

N,N-dimethyl-o-toluidine [3]

Classification: Acute Tox. 3;H301;(ATE: 100 mg/kg bw), Acute Tox. 3;H311;(ATE: 300

mg/kg bw), Acute Tox. 3;H331;(ATE: 3 mg/l), Carc. 2;H351, STOT RE

612-056-00-9

2;H373, Aquatic Chronic 3;H412

Other components below reportable

levels

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Union workplace exposure limit(s).

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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

10 - 30

SECTION 4: First aid measures

Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the **General information**

label where possible). Ensure that medical personnel are aware of the material(s) involved, and

take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison

center or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In case of

eczema or other skin disorders: Seek medical attention and take along these instructions. Wash

contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Get medical attention immediately.

Rinse mouth. Get medical attention if symptoms occur. Ingestion

4.2. Most important symptoms and effects, both acute and

immediate medical attention

and special treatment needed

delayed

vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation.

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Highly flammable liquid and vapor.

5.1. Extinguishing media

4.3. Indication of any

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 Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source

of ignition and flash back. 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

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do

so without risk. procedures

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

Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.

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For emergency responders

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Ventilate closed spaces before entering them. Avoid breathing mist/vapors. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

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 handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not get this material in contact with eyes. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

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

ANNEX 1, PART 1 Categories of dangerous substances

Hazard categories in accordance with Regulation (EC) No 1272/2008

- P5a, b or c FLAMMABLE LIQUIDS (Lower-tier requirements = 50 tons; Upper-tier requirements = 200 tons)

7.3. Specific end use(s)

Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (Components	GwV), BGBI. II, no. 184/2001, as amended Type	l Value
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	MAK	70 mg/m3
		20 ppm
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	Ceiling	420 mg/m3
		100 ppm
	MAK	210 mg/m3
		50 ppm

Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 -Chemical agents, as amended

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	71 mg/m3	
		20 ppm	

Components	Туре	Value	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	416 mg/m3	
		100 ppm	
	TWA	208 mg/m3	
		50 ppm	

Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	70 mg/m3	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

Croatia. OELs (GVI). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and Biological Limit Values, Annex I (NN 91/2018), as amended

Components	Type	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	MAC	72 mg/m3	
		20 ppm	
	STEL	143 mg/m3	
		40 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	MAC	50 ppm	
	STEL	100 ppm	

Cyprus. OELs. Occupational Exposure Limit Values of Chemicals at Work (Safety and Health at Work (Chem. Agents) Reg., Ann. 1, R.A.A. 268/2001, as amended)

Components	Туре	Value	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)

Components	Туре	Value	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	Ceiling	150 mg/m3	
	TWA	50 mg/m3	
N,N-dimethyl-p-toluidine; [1] N,N-dimethyl-m-toluidine; [2] N,N-dimethyl-o-toluidine [3] (CAS 99-97-8)	Ceiling	10 mg/m3	
,	TWA	5 mg/m3	

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TLV	70 mg/m3	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	TLV	102 mg/m3	

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

25 ppm

Components	Туре	Value
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	100 mg/m3
		30 ppm
	TWA	70 mg/m3
		20 ppm
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm

Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health Components Type Value

Componente	. , , , ,	74.40
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	71 mg/m3
		20 ppm
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	210 mg/m3
		50 ppm
	TWA	42 mg/m3
		10 ppm

France. OELs. Occupational Exposure Limits as Prescribed by Art. R.4412-149 of Labor Code, as amended Components **Type** Value

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	VLE	410 mg/m3
		100 ppm
	VME	205 mg/m3
		maa 05

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984 Components **Type** Value

methacrylic acid; VME 70 mg/m3 2-methylpropenoic acid (CAS 79-41-4)

Regulatory status: Indicative limit (VL)

20 ppm

Indicative limit (VL) Regulatory status: methyl methacrylate; methyl

VLE 410 mg/m3

2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)

(CAS 80-62-6)

Regulatory status: Regulatory binding (VRC) Regulatory binding (VRC)

100 ppm Regulatory status: Regulatory binding (VRC) 205 mg/m3 Regulatory status: Regulatory binding (VRC) 50 ppm

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	180 mg/m3	
		50 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	TWA	210 mg/m3	
		50 ppm	
Germany. TRGS 900, Limit Values	in the Ambient Air at the Wo		
Germany. TRGS 900, Limit Values Components	in the Ambient Air at the Wo		
Components methacrylic acid; 2-methylpropenoic acid		rkplace	
· · · · · · · · · · · · · · · · · · ·	Туре	kplace Value	
Components methacrylic acid; 2-methylpropenoic acid	Туре	Value 180 mg/m3	

Greece. OELs, Presidential Decree No. 307/1986, as amended

Regulatory status:

Туре	Value	
STEL	140 mg/m3	
	40 ppm	
TWA	70 mg/m3	
	20 ppm	
STEL	100 ppm	
TWA	50 ppm	
	STEL TWA STEL	STEL 140 mg/m3 40 ppm TWA 70 mg/m3 20 ppm STEL 100 ppm

Hungary. OELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 1&2, as amended Components Type Value

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	415 mg/m3
,	TWA	208 mg/m3

Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended Components Value **Type**

TWA methacrylic acid; 70 mg/m3 2-methylpropenoic acid (CAS 79-41-4)

20 ppm

Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended Components Value **Type**

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)

> TWA 50 ppm

100 ppm

50 ppm

Iroland OFI Vs. Schodulas 1.8.2. Code of Practice for Chemical Agents and Carcinogens Regulations

STEL

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	140 mg/m3	
		40 ppm	
	TWA	70 mg/m3	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Italy. OELs (Legislative Decree n.8	1, 9 April 2008), as amended		
Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	

Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended

TWA

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	10 mg/m3	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	TWA	10 mg/m3	

Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	100 mg/m3	
		30 ppm	
	TWA	70 mg/m3	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	416 mg/m3	
		100 ppm	
	TWA	208 mg/m3	
		50 ppm	

Luxembourg. OELs. Binding Occupational Exposure Limit Values (Annex I), G.D.R. of 14 November 2016, OJ Memorial A, n ° 235/2016, as amended Components **Type** Value methyl methacrylate; methyl 100 ppm **STEL** 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6) **TWA** 50 ppm Malta. OELs. Protection of Health and Safety of Workers from Risks related to Chemical Agents at Work (L.N 227/2003 Schedules I and V), as amended Components Type Value methyl methacrylate; methyl **STEL** 100 ppm 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6) **TWA** 50 ppm Netherlands. OELs per Annex XIII of Working Conditions Regulation (Staatscourant no. 252, 29 December 2006), as amended Components Value **Type** methyl methacrylate; methyl STEL 410 mg/m3 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6) **TWA** 205 mg/m3 Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TLV	70 mg/m3	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	400 mg/m3	
		100 ppm	
	TLV	100 mg/m3	
		25 nnm	

Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018. Annex 1)

Components	Туре	Value	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	300 mg/m3	
	TWA	100 mg/m3	

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796-2014)

Components	туре	value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	45 mg/m3	
		13 ppm	
	TWA	30 mg/m3	
		8,5 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	410 mg/m3	
		100 ppm	
	TWA	205 mg/m3	
		50 ppm	

Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)

Components	Туре	Value	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	180 mg/m3	
		50 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	TWA	210 mg/m3	
		50 nnm	

Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	72 mg/m3	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as amended

Components	Туре	Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	100 mg/m3	
		30 ppm	
	TWA	70 mg/m3	
		20 ppm	

Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as amended

amended	Typo	Value	
Components	Type		
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	Ceiling	400 mg/m3	
		100 ppm	
	TWA	200 mg/m3	
		50 ppm	
Switzerland. SUVA Grenzwe Components	rte am Arbeitsplatz: Aktuelle MAK- Type	Werte Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	360 mg/m3	
		100 ppm	
	TWA	180 mg/m3	
		50 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	420 mg/m3	
		100 ppm	
	TWA	210 mg/m3	
		50 ppm	
UK. OELs. Workplace Expos Components	ure Limits (WELs) (EH40/2005 (Foo Type	ırth Edition 2020)), Table 1 Value	
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	143 mg/m3	
		40 ppm	
	TWA	72 mg/m3	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	STEL	416 mg/m3	
(CAS 80-62-6)		100 ppm	
	TWA	208 mg/m3	
		50 ppm	
EU. Indicative Exposure Lim Components	it Values in Directives 91/322/EEC, Type	2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU Value	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
ogical limit values	No biological exposure limits noted for the ingredient(s).		
ommended monitoring cedures	Follow standard monitoring procedures.		
ved no effect levels ELs)	Not available.		
dicted no effect centrations (PNECs)	Not available.		

Exposure guidelines

Croatia ELVs: Skin designation

methyl methacrylate; methyl 2-methylprop-2-enoate;

methyl 2-methylpropenoate (CAS 80-62-6)

Denmark GV: Skin designation

methyl methacrylate; methyl 2-methylprop-2-enoate;

methyl 2-methylpropenoate (CAS 80-62-6)

Can be absorbed through the skin.

Can be absorbed through the skin.

Germany DFG MAK (advisory): Skin designation

N,N-dimethyl-p-toluidine; [1] N,N-dimethyl-m-toluidine; [2] Can be absorbed through the skin.

N,N-dimethyl-o-toluidine [3] (CAS 99-97-8)

Hungary OELs: Skin designation

methyl methacrylate; methyl 2-methylprop-2-enoate;

methyl 2-methylpropenoate (CAS 80-62-6)

Can be absorbed through the skin.

Iceland OELs: Skin designation

methyl methacrylate; methyl 2-methylprop-2-enoate;

methyl 2-methylpropenoate (CAS 80-62-6)

Can be absorbed through the skin.

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering

controls

Explosion-proof general and local exhaust ventilation. 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. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Use personal protective equipment as required. Personal protection equipment should be chosen **General information**

according to the CEN standards and in discussion with the supplier of the personal protective

equipment.

Eye/face protection

Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. - Other

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using do not smoke. 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. Contaminated work clothing should not

be allowed out of the workplace.

Environmental exposure

controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or

engineering modifications to the process equipment may be necessary to reduce emissions to

acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Liquid. Physical state Paste. Form Color Off-white. Odor Fragrant

-54,4 °F (-48 °C) estimated Melting point/freezing point Boiling point or initial boiling 212,9 °F (100,5 °C) estimated point and boiling range

Flammability Not applicable.

Upper/lower flammability or explosive limits **Explosive limit - lower (%)** 2,1 % estimated Explosive limit - upper (%) 8,2 % estimated

50,0 °F (10,0 °C) estimated Flash point 815 °F (435 °C) estimated **Auto-ignition temperature**

Decomposition temperature Not available. Not available. pН

Not available. Kinematic viscosity

Solubility

Not available. Solubility (water) Partition coefficient Not available.

(n-octanol/water) (log value)

51,33 hPa estimated Vapor pressure

Density and/or relative density

0,98 g/cm3 estimated **Density**

Vapor density Not available. Particle characteristics Not available.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No relevant additional information available.

9.2.2. Other safety characteristics

Specific gravity 0,98 estimated <50 g/l Mixed

SECTION 10: Stability and reactivity

10.1. Reactivity The 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 Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

10.5. Incompatible materials Strong oxidizing agents. Nitrates. Peroxides.

No hazardous decomposition products are known. 10.6. Hazardous

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 May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

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

occupational exposure.

Symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis.

Rash

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Not known.

Components **Species Test Results**

methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)

Acute Inhalation

Rat 7,10000000000000005 mg/l, 4 Hours

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)

Acute Oral

LD50 7800 mg/kg Rat

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye damage.

Respiratory sensitization Due to partial or complete lack of data the classification is not possible.

Skin sensitization May cause an allergic skin reaction.

Material name: Plexus MA420 (AO420) Adhesive

SDS FU

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

methyl methacrylate; methyl 2-methylprop-2-enoate; 3 Not classifiable as to carcinogenicity to humans.

methyl 2-methylpropenoate (CAS 80-62-6)

N,N-dimethyl-p-toluidine; [1] N,N-dimethyl-m-toluidine; [2] 2B Possibly carcinogenic to humans.

N,N-dimethyl-o-toluidine [3] (CAS 99-97-8)

Reproductive toxicityDue to partial or complete lack of data the classification is not possible.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Specific target organ toxicity -

repeated exposure

Not applicable.

Aspiration hazard

Due to partial or complete lack of data the classification is not possible.

Mixture versus substance

information

No information available.

11.2. Information on other hazards

Endocrine disrupting

properties

This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than

0.1% by weight.

Other information Not available.

SECTION 12: Ecological information

12.1. ToxicityBased on available data, the classification criteria are not met for hazardous to the aquatic

environment.

12.2. Persistence and

degradability

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

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

methacrylic acid; 2-methylpropenoic acid 0,93 methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 1,38

2-methylpropenoate

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB

assessment

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting

properties

This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

12.7. Other adverse effects The p

The product contains volatile organic compounds which have a photochemical ozone creation

potential.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packagingSince emptied containers may retain product residue, follow label warnings even after container is

emptied. 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. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN1133

Material name: Plexus MA420 (AO420) Adhesive IT102 Version #: 03 Revision date: 08-02-2023 Issue date: 06-27-2023

```
14.2. UN proper shipping
                                 ADHESIVES containing flammable liquid
    name
    14.3. Transport hazard class(es)
        Class
                                 3
        Subsidiary risk
        Label(s)
                                 3
                                 30
        Hazard No. (ADR)
                                 D/E
        Tunnel restriction code
                                 Ш
    14.4. Packing group
    14.5. Environmental hazards No.
                                 Read safety instructions, SDS and emergency procedures before handling.
    14.6. Special precautions
    for user
RID
    14.1. UN number
                                 UN1133
    14.2. UN proper shipping
                                 ADHESIVES containing flammable liquid
    name
    14.3. Transport hazard class(es)
        Class
                                 3
        Subsidiary risk
        Label(s)
                                 3
    14.4. Packing group
                                 Ш
    14.5. Environmental hazards No.
                                 Read safety instructions, SDS and emergency procedures before handling.
    14.6. Special precautions
    for user
ADN
    14.1. UN number
                                 UN1133
    14.2. UN proper shipping
                                 ADHESIVES containing flammable liquid
    name
    14.3. Transport hazard class(es)
        Class
                                 3
        Subsidiary risk
                                 3
        Label(s)
                                 Ш
    14.4. Packing group
    14.5. Environmental hazards No.
                                 Read safety instructions, SDS and emergency procedures before handling.
    14.6. Special precautions
    for user
IATA
    14.1. UN number
                                 UN1133
                                 Adhesives containing flammable liquid
    14.2. UN proper shipping
    name
    14.3. Transport hazard class(es)
                                 3
        Class
        Subsidiary risk
                                 Ш
    14.4. Packing group
    14.5. Environmental hazards No.
    ERG Code
                                 Read safety instructions, SDS and emergency procedures before handling.
    14.6. Special precautions
    for user
    Other information
                                 Allowed with restrictions.
        Passenger and cargo
        aircraft
                                 Allowed with restrictions.
        Cargo aircraft only
IMDG
                                 UN1133
    14.1. UN number
    14.2. UN proper shipping
                                 ADHESIVES containing flammable liquid
    name
    14.3. Transport hazard class(es)
                                 3
        Class
        Subsidiary risk
                                 Ш
    14.4. Packing group
    14.5. Environmental hazards
        Marine pollutant
                                 No.
    EmS
                                 F-E, S-D
```

14.6. Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

14.7. Maritime transport in bulk according to IMO instruments

Not established.

ADN; ADR; IATA; IMDG; RID



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

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), 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

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

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

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

Authorizations

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 - Conditions of restriction given for the associated entry number should be considered

methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4) 75

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

ANNEX 1, PART 1 Categories of dangerous substances

Hazard categories in accordance with Regulation (EC) No 1272/2008

- P5a, b or c FLAMMABLE LIQUIDS

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

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

(EC) No 1907/2006, as amended.

Young people under 18 years old are not allowed to work with this product according to EU **National regulations**

> Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

France regulations

France INRS Table of Occupational Diseases

methyl methacrylate: methyl 2-methylprop-2-enoate: Affections provoquées par le méthacrylate de méthyle 82 methyl 2-methylpropenoate (CAS 80-62-6)

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization. IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous

Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

MAC: Maximum Allowed Concentration.

MARPOL: International Convention for the Prevention of Pollution from Ships.

PBT: Persistent, bioaccumulative and toxic.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit. TLV: Threshold Limit Value. TWA: Time Weighted Average. VLE: Exposure Limit Value. VME: Exposure Average Value.

vPvB: Very persistent and very bioaccumulative.

References

Information on evaluation method leading to the classification of mixture

Full text of any statements, which are not written out in full under sections 2 to 15

Not available.

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

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed. H302 Harmful if swallowed. H311 Toxic in contact with skin. H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation. H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Revision information

Training information

Disclaimer

None.

Follow training instructions when handling this material.

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.