

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name or designation of the mixture** PLEXUS® MA832 Adhesive

**Registration number** -

**Synonyms** None.

**SKU#** 0533

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

**Identified uses** Not available.

**Uses advised against** None 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 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.)

#### 1.4. Emergency telephone number

<b>France National Poisons Control Center</b>	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.)
<b>Greece Poison Information Centre</b>	(0030) 2107793777 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Hungary National Emergency Phone Number</b>	+36-80-201-199 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Iceland Poison Center</b>	(+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Latvia Emergency medical aid</b>	113
<b>Latvia Poison and Drug Information Center</b>	+371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Lithuania Neatidėliotina informacija apsinuodijus</b>	+370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
<b>Malta Accident and Emergency Department</b>	2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
<b>Netherlands National Poisons Information Center (NVIC)</b>	NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)
<b>Norway Norwegian Poison Information Center</b>	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Portugal Poison Center</b>	800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Romania Biroul RSI si Informare Toxicologica</b>	021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)
<b>Slovakia National Toxicological Information Center</b>	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Spain Toxicology Information Service</b>	+ 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Sweden National Poison Information Center</b>	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
<b>Switzerland Tox Info Suisse</b>	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. The classification of the substance or mixture has been performed in accordance with ABNT NBR 14725.

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

##### Physical hazards

Flammable liquids	Category 2	H225 - Highly flammable liquid and vapor.
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##### Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.

##### Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.
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### 2.2. Label elements

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

EU: NV90-2065-S00P-W143

**Contains:**

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate, methacrylic acid; 2-methylpropenoic acid

**Hazard pictograms****Signal word**

Danger

**Hazard statements**

H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements****Prevention**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing mist/vapors.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**Response**

P302 + P352	IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.

**Storage**

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

**Disposal**

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

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	40 - 70	80-62-6 201-297-1	01-2119452498-28-0000	607-035-00-6	#
<b>Classification:</b> Flam. Liq. 2;H225, Skin Irrit. 2;H315, Skin Sens. 1;H317, STOT SE 3;H335					
<b>Specific Concentration Limits:</b> STOT SE 3;H335: C ≥ 10 %					
methacrylic acid; 2-methylpropenoic acid	3 - < 5	79-41-4 201-204-4	01-2119463884-26-0000	607-088-00-5	
<b>Classification:</b> Acute Tox. 4;H302;(ATE: 500 mg/kg bw), Acute Tox. 4;H312;(ATE: 1100 mg/kg bw), Acute Tox. 3;H331;(ATE: 7,1 mg/l), Skin Corr. 1A;H314, Eye Dam. 1;H318, STOT SE 3;H335					
<b>Specific Concentration Limits:</b> STOT SE 3;H335: C ≥ 1 %					
zinc oxide	< 1	1314-13-2 215-222-5	-	030-013-00-7	
<b>Classification:</b> Aquatic Acute 1;H400, Aquatic Chronic 1;H410					
phosphoric acid ... %, orthophosphoric acid ... %	< 0,2	7664-38-2 231-633-2	-	015-011-00-6	#
<b>Classification:</b> Acute Tox. 4;H302;(ATE: 1530 mg/kg bw), Acute Tox. 2;H330;(ATE: 0,8445 mg/l), Skin Corr. 1B;H314, Eye Dam. 1;H318					
<b>Specific Concentration Limits:</b> Skin Corr. 1B;H314: C ≥ 25 %, Skin Irrit. 2;H315: 10 % ≤ C < 25 %, Eye Dam. 1;H314: C ≥ 25 %, Eye Irrit. 2;H319: 10 % ≤ C < 25 %					
Other components below reportable levels	30 - 60				

## 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.

## SECTION 4: First aid measures

### General information

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

#### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

#### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

### 4.2. Most important symptoms and effects, both acute and delayed

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.

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

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. Symptoms may be delayed.

## SECTION 5: Firefighting measures

### General fire hazards

Highly flammable liquid and vapor.

### 5.1. Extinguishing media

#### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>5.2. Special hazards arising from the substance or mixture</b>	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.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Special fire fighting procedures</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	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.

**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 release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. 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. Prevent product from entering drains.

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. Wear appropriate personal protective equipment. Avoid release to the environment. 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 (GwV), BGBl. II, no. 184/2001, as amended**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
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	
	MAK	100 ppm 210 mg/m3	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	MAK	50 ppm 1 mg/m3	
	STEL	2 mg/m3	
zinc oxide (CAS 1314-13-2)	MAK	5 mg/m3	Fume and respirable dust.
	STEL	20 mg/m3	Inhalable fraction.
		10 mg/m3	Respirable fraction.

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

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
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	416 mg/m3	
	TWA	100 ppm 208 mg/m3 50 ppm	
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m3	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3	
	TWA	1 mg/m3	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

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

<b>Components</b>	<b>Type</b>	<b>Value</b>
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	70 mg/m3
		100 ppm
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3
	TWA	1 mg/m3

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

Components	Type	Value
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3
	TWA	5 mg/m3

**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	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	MAC	72 mg/m3	
		20 ppm	
	STEL	143 mg/m3	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	MAC	40 ppm	
		50 ppm	
	STEL	100 ppm	
Paraffin Wax (CAS 8002-74-2)	MAC	2 mg/m3	Fume.
	STEL	6 mg/m3	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	MAC	1 mg/m3	
	STEL	2 mg/m3	
zinc oxide (CAS 1314-13-2)	MAC	2 mg/m3	Respirable dust.
	STEL	10 mg/m3	Respirable dust.

**Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended**

Components	Type	Value	Form
zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3	Fume.

**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	Type	Value
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3
	TWA	1 mg/m3

**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	Type	Value
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	Ceiling	150 mg/m3
	TWA	50 mg/m3
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	Ceiling	2 mg/m3
	TWA	1 mg/m3
zinc oxide (CAS 1314-13-2)	Ceiling	5 mg/m3
	TWA	2 mg/m3

**Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2**

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	140 mg/m3	
		40 ppm	
	TLV	70 mg/m3	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	TLV	20 ppm	
		102 mg/m3	
Paraffin Wax (CAS 8002-74-2)	STEL	25 ppm	
		4 mg/m3	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	TLV	2 mg/m3	Fume.
	STEL	2 mg/m3	
zinc oxide (CAS 1314-13-2)	TLV	1 mg/m3	
	STEL	8 mg/m3	
	TLV	4 mg/m3	

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

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	100 mg/m3	
		30 ppm	
	TWA	70 mg/m3	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	20 ppm	
		100 ppm	
Paraffin Wax (CAS 8002-74-2)	TWA	50 ppm	
	TWA	2 mg/m3	Vapor.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3	Vapor.
	TWA	1 mg/m3	Vapor.
zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3	

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

Components	Type	Value	Form
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	
Paraffin Wax (CAS 8002-74-2)	TWA	10 ppm	
		1 mg/m3	Fume.

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

Components	Type	Value	Form
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3	
	TWA	1 mg/m3	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Fume.
	TWA	2 mg/m3	Fume.

**France. OELs. Indicative Occupational Exposure Limits as Prescribed by Order of 30 June 2004, as amended**

Components	Type	Value
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	VLE	2 mg/m3
		0,5 ppm
	VME	1 mg/m3
		0,2 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
		50 ppm

**Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated**

Components	Type	Value	Form
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	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	TWA	2 mg/m3	Inhalable fraction.

**Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace**

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	AGW	180 mg/m3	
		50 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	AGW	210 mg/m3	
		50 ppm	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	AGW	2 mg/m3	Inhalable fraction.
zinc oxide (CAS 1314-13-2)	AGW	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	140 mg/m <sup>3</sup>	
		40 ppm	
	TWA	70 mg/m <sup>3</sup> 20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Paraffin Wax (CAS 8002-74-2)	STEL	6 mg/m <sup>3</sup>	Fume.
	TWA	2 mg/m <sup>3</sup>	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	3 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Fume.
	TWA	5 mg/m <sup>3</sup>	Fume.

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

Components	Type	Value	Form
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	415 mg/m <sup>3</sup>	
		100 ppm	
	TWA	208 mg/m <sup>3</sup> 50 ppm	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	TWA	5 mg/m <sup>3</sup>	Dust.
		5 mg/m <sup>3</sup>	Fume.

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

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	70 mg/m <sup>3</sup>	
		20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m <sup>3</sup>	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	TWA	4 mg/m <sup>3</sup>	Fume.

**Ireland. OELVs, Schedules 1 & 2, Code of Practice for Chemical Agents and Carcinogens Regulations**

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	140 mg/m <sup>3</sup>	
	TWA	40 ppm 70 mg/m <sup>3</sup> 20 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Paraffin Wax (CAS 8002-74-2)	STEL	6 mg/m <sup>3</sup>	Fume.
	TWA	2 mg/m <sup>3</sup>	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Respirable fraction and fume.
	TWA	2 mg/m <sup>3</sup>	Respirable fraction and fume.

**Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended**

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	20 ppm	
	STEL	100 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	TWA	50 ppm	
	TWA	2 mg/m <sup>3</sup>	Fume.
Paraffin Wax (CAS 8002-74-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Respirable fraction.
	TWA	2 mg/m <sup>3</sup>	Respirable fraction.

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

Components	Type	Value
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TWA	10 mg/m <sup>3</sup>
	TWA	10 mg/m <sup>3</sup>
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	TWA	10 mg/m <sup>3</sup>
	STEL	2 mg/m <sup>3</sup>
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	TWA	1 mg/m <sup>3</sup>
	TWA	0,5 mg/m <sup>3</sup>

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

Components	Type	Value
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	100 mg/m <sup>3</sup>
	TWA	30 ppm
		70 mg/m <sup>3</sup>
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	400 mg/m <sup>3</sup>
	TWA	100 ppm
		200 mg/m <sup>3</sup>
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>
zinc oxide (CAS 1314-13-2)	TWA	5 mg/m <sup>3</sup>

**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 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**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 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**Netherlands. OELs per Annex XIII of Working Conditions Regulation (Staatscourant no. 252, 29 December 2006), as amended**

Components	Type	Value
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	410 mg/m <sup>3</sup>
	TWA	100 ppm
		205 mg/m <sup>3</sup>
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**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	Type	Value
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	TLV	70 mg/m <sup>3</sup>
		20 ppm
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	400 mg/m <sup>3</sup>
		100 ppm
	TLV	100 mg/m <sup>3</sup>
		25 ppm

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

Components	Type	Value	Form
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	300 mg/m <sup>3</sup>	
	TWA	100 mg/m <sup>3</sup>	
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.

**Portugal. Decree-Law No. 24/2012, Occupational Exposure Limit Values, Annex II, as amended**

Components	Type	Value
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

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

Components	Type	Value	Form
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	
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m <sup>3</sup>	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	3 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Respirable fraction.
	TWA	2 mg/m <sup>3</sup>	Respirable fraction.

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

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	STEL	45 mg/m <sup>3</sup>	
	TWA	13 ppm	
		30 mg/m <sup>3</sup> 8,5 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	410 mg/m <sup>3</sup>	
	TWA	100 ppm	
		205 mg/m <sup>3</sup> 50 ppm	
Paraffin Wax (CAS 8002-74-2)	STEL	6 mg/m <sup>3</sup>	Fume.
	TWA	2 mg/m <sup>3</sup>	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m <sup>3</sup>	Fume.
	TWA	5 mg/m <sup>3</sup>	Fume.

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

Components	Type	Value	Form
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Paraffin Wax (CAS 8002-74-2)	STEL	6 mg/m <sup>3</sup>	Fume.
	TWA	2 mg/m <sup>3</sup>	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m <sup>3</sup>	
	TWA	1 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	STEL	1 mg/m <sup>3</sup>	Respirable fume.
	TWA	1 mg/m <sup>3</sup>	Respirable fume.

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Ann. I 100/2001), as amended**

Components	Type	Value	Form
methacrylic acid; 2-methylpropenoic acid (CAS 79-41-4)	KTV	360 mg/m <sup>3</sup>	
		100 ppm	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	KTV	420 mg/m <sup>3</sup>	
		100 ppm	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	KTV	2 mg/m <sup>3</sup>	
zinc oxide (CAS 1314-13-2)	KTV	20 mg/m <sup>3</sup>	Inhalable fraction.

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Ann. I 100/2001), as amended**

Components	Type	Value	Form
		2,5 mg/m3	Respirable fraction.

**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	Type	Value	Form
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	
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	TWA	1 mg/m3	
zinc oxide (CAS 1314-13-2)	TWA	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
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	
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m3	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3	
	TWA	1 mg/m3	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
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)	Ceiling	400 mg/m3	
		100 ppm	
	TWA	200 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	Ceiling	2 mg/m3	
	TWA	1 mg/m3	
zinc oxide (CAS 1314-13-2)	TWA	5 mg/m3	Total dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte**

Components	Type	Value	Form
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	
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m3	Respirable fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	4 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.
zinc oxide (CAS 1314-13-2)	STEL	3 mg/m3	Respirable fume.
	TWA	3 mg/m3	Respirable fume.

**UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1**

Components	Type	Value	Form
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 (CAS 80-62-6)	STEL	416 mg/m3	
		100 ppm	
	TWA	208 mg/m3	
		50 ppm	
Paraffin Wax (CAS 8002-74-2)	STEL	6 mg/m3	Fume.
	TWA	2 mg/m3	Fume.
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3	
	TWA	1 mg/m3	
zinc oxide (CAS 1314-13-2)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

**EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU**

Components	Type	Value
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)	STEL	2 mg/m3
	TWA	1 mg/m3

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.
<b>Derived no effect levels (DNELs)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.
<b>Exposure guidelines</b>	Occupational Exposure Limits are not relevant to the current physical form of the product.
<b>8.2. Exposure controls</b>	
<b>Appropriate engineering controls</b>	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.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>General information</b>	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
- <b>Hand protection</b>	Wear appropriate chemical resistant gloves.
- <b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	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.
<b>Environmental exposure controls</b>	Inform appropriate managerial or supervisory personnel of all environmental releases. 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**

<b>Physical state</b>	Liquid.
<b>Form</b>	Paste.
<b>Color</b>	Off-white
<b>Odor</b>	Fragrant
<b>Melting point/freezing point</b>	-54,4 °F (-48 °C) estimated
<b>Boiling point or initial boiling point and boiling range</b>	212,9 °F (100,5 °C) estimated
<b>Flammability</b>	Highly flammable liquid
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	2,1 % estimated
<b>Explosive limit - upper (%)</b>	8,2 % estimated

Flash point	50,0 °F (10,0 °C) estimated
Auto-ignition temperature	815 °F (435 °C) estimated
Decomposition temperature	Not available.
pH	Not available.
Kinematic viscosity	Not available.

#### Solubility

Solubility (water) Not available.

Partition coefficient (n-octanol/water) (log value) Not available.

Vapor pressure 51,33 hPa estimated

#### Density and/or relative density

Density 0,94 g/cm<sup>3</sup> estimated

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 0,94 estimated

VOC <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.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

### 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.

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

Eye contact Causes serious eye damage.

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

LC50	Rat	7,1 mg/l, 4 Hours
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methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate (CAS 80-62-6)

#### Acute

#### Oral

LD50	Rat	7800 mg/kg
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Components	Species	Test Results
phosphoric acid ... %, orthophosphoric acid ... % (CAS 7664-38-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2740 mg/kg
<b>Inhalation</b>		
LC50	Rabbit	1,689 mg/l, 1 Hours
<b>Oral</b>		
LD50	Rat	1530 mg/kg
zinc oxide (CAS 1314-13-2)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Mouse	> 5,7 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	> 5 g/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Carcinogenicity</b>	Not applicable.	
<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Mixture versus substance information</b>	No information available.	
<b>11.2. Information on other hazards</b>		
<b>Endocrine disrupting properties</b>	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.	
<b>Other information</b>	Not available.	
<b>SECTION 12: Ecological information</b>		
<b>12.1. Toxicity</b>	Harmful to aquatic life with long lasting effects. Based on available data, the classification criteria are not met for hazardous to the aquatic environment, acute hazard.	
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.	
<b>12.3. Bioaccumulative potential</b>		
<b>Partition coefficient n-octanol/water (log Kow)</b>		
methacrylic acid; 2-methylpropenoic acid	0,93	
methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	1,38	
<b>Bioconcentration factor (BCF)</b>	Not available.	
<b>12.4. Mobility in soil</b>	No data available.	
<b>12.5. Results of PBT and vPvB assessment</b>	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.	

<b>12.6. Endocrine disrupting properties</b>	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.
<b>12.7. Other adverse effects</b>	The product contains volatile organic compounds which have a photochemical ozone creation potential.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	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.
<b>Contaminated packaging</b>	Since 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.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

<b>14.1. UN number</b>	UN1133
<b>14.2. UN proper shipping name</b>	ADHESIVES containing flammable liquid
<b>14.3. Transport hazard class(es)</b>	
Class	3
Subsidiary hazard	-
Label(s)	3
Hazard No. (ADR)	30
Tunnel restriction code	D/E
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### RID

<b>14.1. UN number</b>	UN1133
<b>14.2. UN proper shipping name</b>	ADHESIVES containing flammable liquid
<b>14.3. Transport hazard class(es)</b>	
Class	3
Subsidiary hazard	-
Label(s)	3
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### ADN

<b>14.1. UN number</b>	UN1133
<b>14.2. UN proper shipping name</b>	ADHESIVES containing flammable liquid
<b>14.3. Transport hazard class(es)</b>	
Class	3
Subsidiary hazard	-
Label(s)	3
<b>14.4. Packing group</b>	III
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**IATA**

- 14.1. UN number UN1133
- 14.2. UN proper shipping name Adhesives containing flammable liquid, Limited Quantity
- 14.3. Transport hazard class(es)
  - Class 3
  - Subsidiary hazard -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- ERG Code 3L
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
- Other information
  - Passenger and cargo aircraft Allowed with restrictions.
  - Cargo aircraft only Allowed with restrictions.

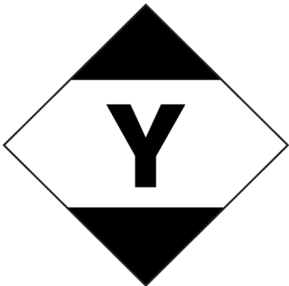
**IMDG**

- 14.1. UN number UN1133
- 14.2. UN proper shipping name ADHESIVES containing flammable liquid, Limited Quantity
- 14.3. Transport hazard class(es)
  - Class 3
  - Subsidiary hazard -
- 14.4. Packing group III
- 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.

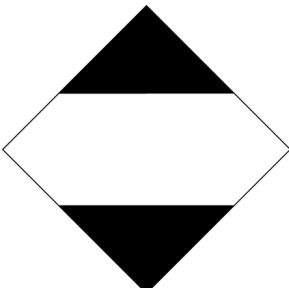
**ADN; ADR; RID**



**IATA**



**IMDG**



## 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 (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**

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.

**UFI:**

EU: NV90-2065-S00P-W143

#### 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**

Not listed.

**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended**

Not listed.

**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, 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

**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 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

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Use of this product by young persons under the age of 18 is not allowed in accordance with the Management of Health and Safety at Work Regulations 1999 [SI 1999/3242], 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**

Not regulated.

#### Product registration number

<b>Austria</b>	UFI: NV90-2065-S00P-W143
<b>Belgium</b>	UFI: NV90-2065-S00P-W143
<b>Czech Republic</b>	UFI: NV90-2065-S00P-W143
<b>Denmark</b>	UFI: NV90-2065-S00P-W143
<b>European Union</b>	UFI: NV90-2065-S00P-W143
<b>Finland</b>	UFI: NV90-2065-S00P-W143
<b>France</b>	UFI: NV90-2065-S00P-W143

Germany	UFI: NV90-2065-S00P-W143
Greece	UFI: NV90-2065-S00P-W143
Hungary	UFI: NV90-2065-S00P-W143
Italy	UFI: NV90-2065-S00P-W143
Netherlands	UFI: NV90-2065-S00P-W143
Norway	UFI: NV90-2065-S00P-W143
Poland	UFI: NV90-2065-S00P-W143
Portugal	UFI: NV90-2065-S00P-W143
Slovakia	UFI: NV90-2065-S00P-W143
Slovenia	UFI: NV90-2065-S00P-W143
Spain	UFI: NV90-2065-S00P-W143
Sweden	UFI: NV90-2065-S00P-W143
Switzerland	UFI: NV90-2065-S00P-W143

**15.2. Chemical safety assessment**

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**

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 statements, which are not written out in full under sections 2 to 15**

H225 Highly flammable liquid and vapor.  
 H302 Harmful if swallowed.  
 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.  
 H330 Fatal if inhaled.  
 H331 Toxic if inhaled.  
 H335 May cause respiratory irritation.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

**Revision information**

SECTION 2: Hazards identification: Hazard statements  
 SECTION 2: Hazards identification: Main symptoms  
 SECTION 4: First aid measures: 4.2. Most important symptoms and effects, both acute and delayed  
 SECTION 9: Physical and chemical properties: Form  
 SECTION 11: Toxicological information: Specific target organ toxicity - repeated exposure  
 HazReg Data: International Inventories

**Training information**

Follow training instructions when handling this material.

**Disclaimer**

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.