

SAFETY DATA SHEET

Version #: 06

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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 DEVCON® Titanium Putty Hardener

Registration number -

Synonyms None.

SKU# 5318N

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.)

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.)

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	113
Latvia Poison and Drug Information Center	+371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Lithuania Neatidēliotina informacija apsinuodijus	+370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Malta Accident and Emergency Department	2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Netherlands National Poisons Information Center (NVIC)	NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)
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

Health hazards

Acute toxicity, dermal	Category 4	H312 - Harmful in contact with skin.
Skin corrosion/irritation	Category 1B	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.

2.2. Label elements

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

UFI:

Austria: GP20-J06U-2003-AC5P
Belgium: GP20-J06U-2003-AC5P
Bulgaria: GP20-J06U-2003-AC5P
Croatia: GP20-J06U-2003-AC5P
Cyprus: GP20-J06U-2003-AC5P
Czech Republic: GP20-J06U-2003-AC5P
Denmark: GP20-J06U-2003-AC5P
Estonia: GP20-J06U-2003-AC5P
EU: GP20-J06U-2003-AC5P
Finland: GP20-J06U-2003-AC5P
France: GP20-J06U-2003-AC5P
Germany: GP20-J06U-2003-AC5P
Greece: GP20-J06U-2003-AC5P
Hungary: GP20-J06U-2003-AC5P
Iceland: GP20-J06U-2003-AC5P
Ireland: GP20-J06U-2003-AC5P
Italy: GP20-J06U-2003-AC5P
Latvia: GP20-J06U-2003-AC5P
Lithuania: GP20-J06U-2003-AC5P
Luxembourg: GP20-J06U-2003-AC5P
Malta: GP20-J06U-2003-AC5P
Netherlands: GP20-J06U-2003-AC5P
Norway: GP20-J06U-2003-AC5P
Poland: GP20-J06U-2003-AC5P
Portugal: GP20-J06U-2003-AC5P
Romania: GP20-J06U-2003-AC5P
Slovakia: GP20-J06U-2003-AC5P
Slovenia: GP20-J06U-2003-AC5P
Spain: GP20-J06U-2003-AC5P
Sweden: GP20-J06U-2003-AC5P

Contains:

1h-imidazole, 2-ethyl-4-methyl-, 3,6-diazaoctanethylenediamin; triethylenetetramine, Ferrosilicon, [with $\geq 30\%$ But $\leq 70\%$ Silicon], Formaldehyde, Oligomeric Reaction Products With Phenol And Triethylenetetramine, Glass Oxide, Methylimidazole, 4-

Hazard pictograms



Signal word

Danger

Hazard statements

H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Precautionary statements

Prevention

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.

Storage

P405 Store locked up.

Disposal

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

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
Ferrosilicon, [with >= 30% But <= 70% Silicon]	10 - 30	8049-17-0	-	-	
Classification: -					
Formaldehyde, Oligomeric Reaction Products With Phenol And Triethylenetetramine	10 - 30	32610-77-8 500-083-8	-	-	
Classification: -					
1h-imidazole, 2-ethyl-4-methyl-	5 - < 10	931-36-2 213-234-5	-	-	
Classification: -					
3,6-diazaoctanethylenediamin; triethylenetetramine	5 - 10	112-24-3 203-950-6	-	612-059-00-5	
Classification: Acute Tox. 4;H302;(ATE: 1716 mg/kg bw), Acute Tox. 4;H312;(ATE: 1100 mg/kg bw), Skin Corr. 1B;H314, Eye Dam. 1;H318, Skin Sens. 1;H317, Aquatic Chronic 3;H412					
Glass Oxide	5 - 10	65997-17-3 266-046-0	-	650-016-00-2	#
Classification: Carc. 2;H351					
phenol; carboic acid; monohydroxybenzene; phenylalcohol	5 - 10	108-95-2 203-632-7	-	604-001-00-2	#
Classification: Acute Tox. 3;H301;(ATE: 100 mg/kg bw), Acute Tox. 3;H311;(ATE: 300 mg/kg bw), Acute Tox. 3;H331;(ATE: 0,5 mg/l), Skin Corr. 1B;H314, Eye Dam. 1;H318, Muta. 2;H341, STOT RE 2;H373, Aquatic Chronic 2;H411					
Specific Concentration Limits: Skin Corr. 1B;H314: C ≥ 3 %, Skin Irrit. 2;H315: 1 % ≤ C < 3 %, Eye Dam. 1;H314: C ≥ 3 %, Eye Irrit. 2;H319: 1 % ≤ C < 3 %					
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	1 - 5	13463-67-7 236-675-5	01-2119489379-17-0000	022-006-002	
Classification: Carc. 2;H351					
Methylimidazole, 4-	< 1	822-36-6 212-497-3	-	-	
Classification: Acute Tox. 4;H302;(ATE: 751 mg/kg bw), Acute Tox. 3;H311;(ATE: 440 mg/kg bw), Carc. 2;H351					
Other components below reportable levels	10 - < 20				

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

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
4.2. Most important symptoms and effects, both acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
4.3. Indication of any immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical 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 warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards	No unusual fire or explosion hazards noted.
5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Use water spray to cool unopened containers.
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	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. 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	Large Spills: Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Small Spills: 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 get in eyes, on skin, or on clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	MAK	8 mg/m3	

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001, as amended

Components	Type	Value	Form
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)		2 ppm	
	STEL	6 mg/m ³	
	MAK	4 ppm 5 mg/m ³	Respirable dust.
	STEL	10 mg/m ³	Respirable dust.

Austria. OELs. TRK List, Grenzwerteverordnung, BGBl. II, no. 429/2011, as amended

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	300000 fibers/m ³	Fiber.

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	Type	Value
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m ³
	TWA	4 ppm 8 mg/m ³
		2 ppm
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m ³

Bulgaria. OEL values of carcinogens and mutagens at work (Reg. 10/2003 on prot. from carcinogens and mutagens at work, Ann. 1), as amended

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	0,3 fibers/cm ³	Fiber.

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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m ³	
	TWA	4 ppm 8 mg/m ³	
		2 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m ³	Respirable dust.

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
Glass Oxide (CAS 65997-17-3)	MAC	0,3 fibers/cm ³	
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	MAC	8 mg/m ³	
		2 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	Form
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	STEL	6 mg/m ³	
		4 ppm	
	MAC	4 mg/m ³	Respirable dust.
		10 mg/m ³	Total dust.

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	10 mg/m ³	Fiber or dust.
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m ³	

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
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m ³
		4 ppm
	TWA	8 mg/m ³ 2 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	Type	Value
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	Ceiling	15 mg/m ³
	TWA	7,5 mg/m ³

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TLV	0,3 fibers/cm ³	Fiber.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	TLV	4 mg/m ³	
		1 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TLV	6 mg/m ³	

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

Components	Type	Value
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	STEL	12 mg/m ³
	TWA	6 mg/m ³ 1 ppm
Glass Oxide (CAS 65997-17-3)	TWA	1 fibers/ml

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

Components	Type	Value
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3
		4 ppm
	TWA	8 mg/m3
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	2 ppm
		5 mg/m3

Finland. Government Decree on Work-related Cancer Risks

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	0,3 fibers/cm3	Fiber.

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	0,3 fibers/cm3	Respirable.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
		4 ppm	
	TWA	8 mg/m3	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	2 ppm	
		10 mg/m3	Dust.

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

Components	Type	Value
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	VLE	15,6 mg/m3
		4 ppm
	VME	7,8 mg/m3
		2 ppm

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

Components	Type	Value
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	VLE	15,6 mg/m3
	Regulatory status: Regulatory binding (VRC)	4 ppm
	Regulatory status: Regulatory binding (VRC)	7,8 mg/m3
	VME	
	Regulatory status: Regulatory binding (VRC)	2 ppm
Regulatory status: Regulatory binding (VRC)		

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

Components	Type	Value
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	VME	10 mg/m3
Regulatory status: Indicative limit (VL)		

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
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	0,3 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	AGW	8 mg/m3	Vapor and aerosol.
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	AGW	2 ppm	Vapor and aerosol.
		10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
	TWA	4 ppm	
		8 mg/m3	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	2 ppm	
		5 mg/m3	Respirable.
			10 mg/m3

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	1 fibers/cm3	Fibrous dust.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
	TWA	8 mg/m3	

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

Components	Type	Value	Form
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	TWA	6 mg/m3	
		1 ppm	
Glass Oxide (CAS 65997-17-3)	TWA	1 fibers/cm3	Fiber.

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

Components	Type	Value	Form
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	6 mg/m3	

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	2 fibers/cm3	
		5 mg/m3	
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
		4 ppm	
	TWA	8 mg/m3	
		2 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.

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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
		4 ppm	
	TWA	8 mg/m3	
		2 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	2,5 mg/m3	Respirable finescale particles
		0,2 mg/m3	Respirable nanoscale particles

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	0,3 fibers/cm3	
		2 mg/m3	
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
		4 ppm	
	TWA	8 mg/m3	
		2 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	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	Type	Value	Form
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	STEL	12 mg/m ³	
	TWA	2 ppm 6 mg/m ³	
Glass Oxide (CAS 65997-17-3) phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	TWA	1 fibers/cm ³	Fiber.
	STEL	16 mg/m ³	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	4 ppm 8 mg/m ³	
	TWA	2 ppm 5 mg/m ³	

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
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m ³
	TWA	4 ppm 8 mg/m ³ 2 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
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m ³
	TWA	4 ppm 8 mg/m ³ 2 ppm

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

Components	Type	Value
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	TWA	8 mg/m ³

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	Form
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	TLV	6 mg/m ³	
Glass Oxide (CAS 65997-17-3)	TLV	1 ppm 5 mg/m ³	Total dust.

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	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	12 mg/m3	
	TLV	3 ppm 4 mg/m3 1 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TLV	5 mg/m3	

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

Components	Type	Value	Form
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	STEL	3 mg/m3	
Glass Oxide (CAS 65997-17-3)	TWA	1 mg/m3	
	TWA	1 fibers/cm3	Respirable fibers.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
	TWA	7,8 mg/m3	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	STEL	30 mg/m3	
	TWA	10 mg/m3	Inhalable fraction.

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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
	TWA	4 ppm	
		8 mg/m3 2 ppm	

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

Components	Type	Value	Form
Glass Oxide (CAS 65997-17-3)	TWA	0,2 fibers/cm3	Fiber.
		5 mg/m3	Inhalable fraction.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	TWA	5 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	10 mg/m3	

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
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	STEL	20 mg/m3
	TWA	3,3 ppm 10 mg/m3 1,7 ppm
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3
	TWA	4 ppm 8 mg/m3 2 ppm
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	STEL	15 mg/m3
	TWA	10 mg/m3

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
Glass Oxide (CAS 65997-17-3)	TWA	2 fibers/cm3
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3
	TWA	4 ppm 8 mg/m3 2 ppm
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 mg/m3

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
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	TWA	8 mg/m3	
		2 ppm	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	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
Glass Oxide (CAS 65997-17-3)	TWA	0,3 fibers/cm3	Fiber.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	

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

Components	Type	Value	Form
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	4 ppm	
		8 mg/m3	
	TWA	2 ppm	
		10 mg/m3	

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

Components	Type	Value	Form
3,6-diazaoctanethylenedia min; triethylenetetramine (CAS 112-24-3)	STEL	12 mg/m3	
	TWA	2 ppm 6 mg/m3	
Glass Oxide (CAS 65997-17-3)	TWA	1 ppm	
		1 fibers/ml	
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	Ceiling	16 mg/m3	
	TWA	4 ppm 4 mg/m3	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	1 ppm	Total dust.
		5 mg/m3	

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	19 mg/m3	Vapor and aerosol.
	TWA	5 ppm 19 mg/m3	Vapor and aerosol. Vapor and aerosol.
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	5 ppm	Vapor and aerosol.
		3 mg/m3	Respirable dust.

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

Components	Type	Value	Form
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m3	
	TWA	4 ppm	
		7,8 mg/m3 2 ppm	

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

Components	Type	Value	Form
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	TWA	4 mg/m ³	Respirable.
		10 mg/m ³	Inhalable

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
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	STEL	16 mg/m ³
	TWA	4 ppm
		8 mg/m ³
		2 ppm

EU. OELs, Directive 2004/37/EC on carcinogen and mutagens from Annex III, Part A, as amended

Components	Type	Value
Glass Oxide (CAS 65997-17-3)	TWA	0,3 fibers/ml

Biological limit values**Croatia. BELs (BGV). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and BELs, Annex IV (NN 91/2018), as amended**

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	120 mg/g	phenol	Creatinine in urine	*
	0,14 mol/mol	phenol	Creatinine in urine	*

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

Czech Republic. BELs. Government Decree 432/2003 Sb., as amended

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	360 µmol/mmol	phenol	Creatinine in urine	*
	300 mg/g	phenol	Creatinine in urine	*

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

Finland. HTP-arvot, App 2., Biological Limit Values, Social Affairs and Ministry of Health

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	1,3 mmol/l	Total phenol	Urine	*

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

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

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	250 mg/g	Phènototal	Creatinine in urine	*

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

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

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	120 mg/g	Phenol (nach Hydrolyse)	Creatinine in urine	*

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

Hungary. BELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 3&4, as amended

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	144 µmol/mmol	phenol	Creatinine in urine	*
	120 mg/g	phenol	Creatinine in urine	*

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

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

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	133,7 mg/g	phenol	Creatinine in urine	*
	200 mg/l	phenol	Urine	*

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

Spain. BELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 3-Valores Límite Biológicos (VLB)

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	120 mg/g	Fenol, con hidrólisis	Creatinine in urine	*

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

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte

Components	Value	Determinant	Specimen	Sampling Time
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	250 mg/g	Phenol	Creatinine in urine	*

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

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines**Austria MAK: Skin designation**

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Belgium OELs: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Bulgaria OELs: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Czech Republic PELs: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Denmark GV: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Estonia OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

EU Exposure Limit Values: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Finland Exposure Limit Values: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

France INRS: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

France Mandatory OELs (VLEP): Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Germany DFG MAK (advisory): Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Germany TRGS 900 Limit Values: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Greece OEL: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Hungary OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Ireland Exposure Limit Values: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Italy OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Danger of cutaneous absorption

Latvia OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Lithuania OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Luxembourg OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Malta OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Netherlands OELs (binding): Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Norway Exposure Limit Values: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Portugal OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Portugal VLEs Norm on Occupational Exposure: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Romania OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Can be absorbed through the skin.

Slovakia OELs: Skin designation

phenol; carbolic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

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)

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2) Can be absorbed through the skin.

Spain OELs: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2) Can be absorbed through the skin.

Sweden Threshold Limit Values: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2) Can be absorbed through the skin.

Switzerland SUVA Limit Values at the Workplace: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2) Can be absorbed through the skin.

UK EH40 WEL: Skin designation

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information

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.

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended.

Skin protection

- Hand protection

Wear appropriate chemical resistant gloves.

- Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. 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

Physical state	Solid.
Form	Paste.
Color	Off-white.
Odor	Ammoniacal.
Melting point/freezing point	53,6 °F (12 °C) estimated
Boiling point or initial boiling point and boiling range	510,8 °F (266 °C) estimated
Flammability	Not available.
Flash point	276,1 °F (135,6 °C) estimated
Auto-ignition temperature	640 °F (337,78 °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	0,001 hPa estimated
Density and/or relative density	
Density	1,65 g/cm ³ 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	1,65 estimated
VOC	0 g/l

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	Contact with incompatible materials.
10.5. Incompatible materials	Peroxides. Phenols.
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. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

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

Acute toxicity Harmful in contact with skin.

Components	Species	Test Results
3,6-diazaoctanethylenediamin; triethylenetetramine (CAS 112-24-3)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rat	1465 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	1716 mg/kg
Methylimidazole, 4- (CAS 822-36-6)		
Acute		
Dermal		
LD50	Rabbit	440 mg/kg
Oral		
LD50	Rat	751 mg/kg
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)		
Acute		
Dermal		
LD50	Hamster	≥ 10000 mg/kg
Oral		
LD50	Rat	> 10000 mg/kg

Skin corrosion/irritation	Causes severe skin burns and eye damage.
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.
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.

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

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	Mutagenic, Category 2.
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Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

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

Glass Oxide (CAS 65997-17-3)	
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	

IARC Monographs. Overall Evaluation of Carcinogenicity

Methylimidazole, 4- (CAS 822-36-6)	2B Possibly carcinogenic to humans.
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)	3 Not classifiable as to carcinogenicity to humans.
titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

Slovenia. CMR. Protection of workers from exposure to carcinogen and mutagen agents (ULRS 101/2005, as amended)

Glass Oxide (CAS 65997-17-3)	Carcinogenic, Category 1B.
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Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure Not applicable.

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. Toxicity Based 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)

phenol; carboic acid; monohydroxybenzene; phenylalcohol	1,46
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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 No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.8. Additional information

Estonia Dangerous substances in soil Data

phenol; carboic acid; monohydroxybenzene;
phenylalcohol (CAS 108-95-2)

Hydroxybenzene (As the sum of Phenols) 0,1 MG/KG

Hydroxybenzene (As the sum of Phenols) 1 MG/KG

Hydroxybenzene (As the sum of Phenols) 10 MG/KG

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 packaging	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.
EU waste code	The 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	UN3259
14.2. UN proper shipping name	AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Hazard No. (ADR)	80
Tunnel restriction code	E
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN3259
14.2. UN proper shipping name	AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	6.1
Label(s)	8
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN3259
14.2. UN proper shipping name	AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN3259
14.2. UN proper shipping name	Amines, solid, corrosive, n.o.s. (3,6-diazaoctanethylenediamin; triethylenetetramine, Methylimidazole, 4-), Limited Quantity

14.3. Transport hazard class(es)

Class 8
Subsidiary risk -

14.4. Packing group III

14.5. Environmental hazards No.

ERG Code 8L

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 UN3259

14.2. UN proper shipping name AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. (3,6-diazaoctanethylenediamin; triethylenetetramine, Methylimidazole, 4-), Limited Quantity

14.3. Transport hazard class(es)

Class 8
Subsidiary risk -

14.4. Packing group III

14.5. Environmental hazards

Marine pollutant No.

EmS F-A, S-B

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 applicable.

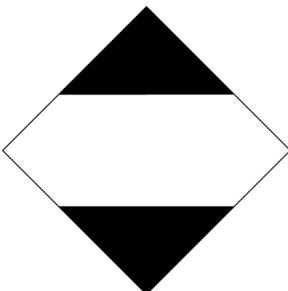
ADN; ADR



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

titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (CAS 13463-67-7)
phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

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

Not listed.

UFI:

Austria: GP20-J06U-2003-AC5P
Belgium: GP20-J06U-2003-AC5P
Bulgaria: GP20-J06U-2003-AC5P
Croatia: GP20-J06U-2003-AC5P
Cyprus: GP20-J06U-2003-AC5P
Czech Republic: GP20-J06U-2003-AC5P
Denmark: GP20-J06U-2003-AC5P
Estonia: GP20-J06U-2003-AC5P
EU: GP20-J06U-2003-AC5P
Finland: GP20-J06U-2003-AC5P
France: GP20-J06U-2003-AC5P
Germany: GP20-J06U-2003-AC5P
Greece: GP20-J06U-2003-AC5P
Hungary: GP20-J06U-2003-AC5P
Iceland: GP20-J06U-2003-AC5P
Ireland: GP20-J06U-2003-AC5P
Italy: GP20-J06U-2003-AC5P
Latvia: GP20-J06U-2003-AC5P
Lithuania: GP20-J06U-2003-AC5P
Luxembourg: GP20-J06U-2003-AC5P
Malta: GP20-J06U-2003-AC5P
Netherlands: GP20-J06U-2003-AC5P
Norway: GP20-J06U-2003-AC5P
Poland: GP20-J06U-2003-AC5P
Portugal: GP20-J06U-2003-AC5P
Romania: GP20-J06U-2003-AC5P
Slovakia: GP20-J06U-2003-AC5P
Slovenia: GP20-J06U-2003-AC5P
Spain: GP20-J06U-2003-AC5P
Sweden: GP20-J06U-2003-AC5P

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

Glass Oxide (CAS 65997-17-3)

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

phenol; carboic acid; monohydroxybenzene; phenylalcohol (CAS 108-95-2)

Glass Oxide (CAS 65997-17-3)

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

Contains a substance which is included on the TRGS 905 list of carcinogenic, germ cell mutagenic and reproductive toxic substances

titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (CAS 13463-67-7) Anorganische Faserstäube, soweit nicht erwähnt (ausgenommen Gipsfasern und Wollastonitfasern)

France regulations

France INRS Table of Occupational Diseases

Not regulated.

Product registration number

Austria	UFI: GP20-J06U-2003-AC5P
Belgium	UFI: GP20-J06U-2003-AC5P
Czech Republic	UFI: GP20-J06U-2003-AC5P
Denmark	UFI: GP20-J06U-2003-AC5P
European Union	UFI: GP20-J06U-2003-AC5P
Finland	UFI: GP20-J06U-2003-AC5P
France	UFI: GP20-J06U-2003-AC5P
Germany	UFI: GP20-J06U-2003-AC5P
Greece	UFI: GP20-J06U-2003-AC5P
Hungary	UFI: GP20-J06U-2003-AC5P
Italy	UFI: GP20-J06U-2003-AC5P
Netherlands	UFI: GP20-J06U-2003-AC5P
Norway	UFI: GP20-J06U-2003-AC5P
Poland	UFI: GP20-J06U-2003-AC5P
Portugal	UFI: GP20-J06U-2003-AC5P
Slovakia	UFI: GP20-J06U-2003-AC5P
Slovenia	UFI: GP20-J06U-2003-AC5P
Spain	UFI: GP20-J06U-2003-AC5P
Sweden	UFI: GP20-J06U-2003-AC5P
Switzerland	UFI: GP20-J06U-2003-AC5P

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.

Not available.

References

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

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.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

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

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Revision information

Physical & Chemical Properties: Multiple Properties

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.