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

1.1. Product identifier

Product form : Mixture
Trade name : PSX Part B Hardener

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional uses
Use of the substance/mixture : Hardener (Crosslinker)
(adhesives)

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

NOV Completion and Production Solutions
Fiber Glass Systems
Wilgenweg 8P
2964AM Groot-Ammers - The Netherlands
T +31 610560118
evert.riswick@nov.com - www.fgspipe.com

1.4. Emergency telephone number

Emergency number : + 1-760-476-3961
This telephone number is available 24 hours per day, 7 days per week.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302
Skin Corr. 1B H314
Eye Dam. 1 H318
Skin Sens. 1 H317
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H statements : see section 16

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word : Danger

Hazardous ingredients : N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine; Methanol; 2,4,6-tris(dimethylaminomethyl)phenol; m-phenylenebis(methylamine); 2,2'-iminodiethylamine; diethylenetriamine

Hazard statements (CLP) : H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
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 or shower.
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

2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment : Not applicable.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine)	(CAS-No.) 57214-10-5 (EC-No.) 500-137-0	35 – 45	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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m-phenylenebis(methylamine)	(CAS-No.) 1477-55-0 (EC-No.) 216-032-5	25 – 35	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:vapour), H332 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine	(CAS-No.) 35141-30-1 (EC-No.) 252-390-9	3 – 6	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
2,4,6-tris(dimethylaminomethyl)phenol	(CAS-No.) 90-72-2 (EC-No.) 202-013-9 (EC Index) 603-069-00-0	1 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315
ethylbenzene substance with a Community workplace exposure limit	(CAS-No.) 100-41-4 (EC-No.) 202-849-4 (EC Index) 601-023-00-4	< 0,5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
xylene substance with a Community workplace exposure limit	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7 (EC Index) 601-022-00-9	< 0,5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
2,2'-iminodiethylamine; diethylenetriamine	(CAS-No.) 111-40-0 (EC-No.) 203-865-4 (EC Index) 612-058-00-X	< 0,3	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 2 (Inhalation), H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Methanol substance with a Community workplace exposure limit	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index) 603-001-00-X	< 0,2	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 STOT SE 1, H370

Specific concentration limits:

Substance name	Product identifier	Specific concentration limits
Methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index) 603-001-00-X	(3 ≤C < 10) STOT SE 2, H371 (10 ≤C < 100) STOT SE 1, H370

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically.
Inhalation	: Remove casualty to fresh air and keep warm and at rest. Give oxygen or artificial respiration if necessary. Get immediate medical advice/attention.
Skin contact	: Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. Get immediate medical advice/attention. Doctor: administration of corticoid spray.
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
Ingestion	: Get immediate medical advice/attention. Do not induce vomiting without medical advice. If swallowed, rinse mouth with water (only if the person is conscious). Vomiting: prevent asphyxia/aspiration pneumonia.

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

Inhalation : The following symptoms may occur: Irritation, sore throat.
 Skin contact : Causes severe burns. May cause an allergic skin reaction.
 Eyes contact : Causes serious eye damage.
 Ingestion : Causes severe burns. Harmful if swallowed.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Alcohol resistant foam, dry extinguishing powder, Carbon dioxide, Dry sand, limestone powder.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Non flammable. Heating will cause a rise in pressure with a risk of bursting. By-products from reaction with water may be toxic. Do not allow to enter into surface water or drains.

Hazardous decomposition products in case of fire : Carbon oxides (CO, CO₂), Nitrogen oxides, Ammonia.

5.3. Advice for firefighters

Firefighting instructions : Special protective equipment for firefighters. In case of fire: Wear self-contained breathing apparatus. Use water spray or fog for cooling exposed containers. Do not allow run-off from fire-fighting to enter drains or water courses. Evacuate personnel to a safe area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8.

For non-emergency personnel : Evacuate personnel to a safe area. Stay upwind/keep distance from source. Provide adequate ventilation. Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure equipment is adequately earthed. Use explosion-proof equipment.

Measures in case of dust release : Exclude sources of ignition and ventilate the area. Do not breathe dust.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so.

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Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Use non-sparking tools. Collect spillage. Store away from other materials. Dispose of waste product or used containers according to local regulations.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with combustibles... See also section 10. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow to enter into surface water or drains. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools.

Hygiene measures : Wash hands immediately after handling the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Separate working clothes from town clothes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in a dry, cool and well-ventilated place. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity. Bund storage facilities to prevent soil and water pollution in the event of spillage.

Packaging materials : Keep only in the original container.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methanol (67-56-1)		
EU	IOEL TWA	260 mg/m ³
EU	IOEL TWA [ppm]	200 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (OEL TWA)	260 mg/m ³
Austria	MAK (OEL TWA) [ppm]	200 ppm
Austria	MAK (OEL STEL)	1040 mg/m ³
Austria	MAK (OEL STEL) [ppm]	800 ppm
Belgium	OEL TWA	266 mg/m ³
Belgium	OEL TWA [ppm]	200 ppm
Belgium	OEL STEL	333 mg/m ³
Belgium	OEL STEL [ppm]	250 ppm
Bulgaria	OEL TWA	260 mg/m ³
Bulgaria	OEL TWA [ppm]	200 ppm

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Methanol (67-56-1)		
Croatia	GVI (OEL TWA) [1]	260 mg/m ³
Croatia	GVI (OEL TWA) [2]	200 ppm
Cyprus	OEL TWA	260 mg/m ³
Cyprus	OEL TWA [ppm]	200 ppm
Czech Republic	PEL (OEL TWA)	250 mg/m ³
Denmark	OEL TWA [1]	260 mg/m ³
Denmark	OEL TWA [2]	200 ppm
Estonia	OEL TWA	250 mg/m ³
Estonia	OEL TWA [ppm]	200 ppm
Estonia	OEL STEL	350 mg/m ³
Estonia	OEL STEL [ppm]	250 ppm
Finland	HTP (OEL TWA) [1]	270 mg/m ³
Finland	HTP (OEL TWA) [2]	200 ppm
Finland	HTP (OEL STEL)	330 mg/m ³
Finland	HTP (OEL STEL) [ppm]	250 ppm
France	VME (OEL TWA)	260 mg/m ³ (restrictive limit)
France	VME (OEL TWA) [ppm]	200 ppm (restrictive limit)
France	VLE (OEL C/STEL)	1300 mg/m ³
France	VLE (OEL C/STEL) [ppm]	1000 ppm
Germany	Occupational exposure limit value (mg/m ³) (TRGS900)	130 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	Occupational exposure limit value (ppm) (TRGS900)	100 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	BLV	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: for long-term exposures: at the end of the shift after several shifts
Gibraltar	OEL TWA	260 mg/m ³
Gibraltar	OEL TWA [ppm]	200 ppm
Greece	OEL TWA	260 mg/m ³
Greece	OEL TWA [ppm]	200 ppm
Greece	OEL STEL	325 mg/m ³
Greece	OEL STEL [ppm]	250 ppm
Hungary	AK (OEL TWA)	260 mg/m ³
Ireland	OEL TWA [1]	260 mg/m ³
Ireland	OEL TWA [2]	200 ppm
Ireland	OEL STEL	780 mg/m ³ (calculated)
Ireland	OEL STEL [ppm]	600 ppm (calculated)
Italy	OEL TWA	260 mg/m ³
Italy	OEL TWA [ppm]	200 ppm

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Methanol (67-56-1)		
Latvia	OEL TWA	260 mg/m ³
Latvia	OEL TWA [ppm]	200 ppm
Lithuania	IPRV (OEL TWA)	260 mg/m ³
Lithuania	IPRV (OEL TWA) [ppm]	200 ppm
Luxembourg	OEL TWA	260 mg/m ³
Luxembourg	OEL TWA [ppm]	200 ppm
Malta	OEL TWA	260 mg/m ³
Malta	OEL TWA [ppm]	200 ppm
Netherlands	MAC-TGG (OEL TWA)	133 mg/m ³
Poland	NDS (OEL TWA)	100 mg/m ³
Poland	NDSch (OEL STEL)	300 mg/m ³
Portugal	OEL TWA	260 mg/m ³ (indicative limit value)
Portugal	OEL TWA [ppm]	200 ppm (indicative limit value)
Portugal	OEL STEL [ppm]	250 ppm
Romania	OEL TWA	260 mg/m ³
Romania	OEL TWA [ppm]	200 ppm
Slovakia	NPHV (OEL TWA) [1]	260 mg/m ³
Slovakia	NPHV (OEL TWA) [2]	200 ppm
Slovenia	OEL TWA	260 mg/m ³
Slovenia	OEL TWA [ppm]	200 ppm
Slovenia	OEL STEL	1040 mg/m ³
Slovenia	OEL STEL [ppm]	800 ppm
Spain	VLA-ED (OEL TWA) [1]	266 mg/m ³ (indicative limit value)
Spain	VLA-ED (OEL TWA) [2]	200 ppm (indicative limit value)
Sweden	NGV (OEL TWA)	250 mg/m ³
Sweden	NGV (OEL TWA) [ppm]	200 ppm
Sweden	KTV (OEL STEL)	350 mg/m ³
Sweden	KTV (OEL STEL) [ppm]	250 ppm
United Kingdom	WEL TWA (OEL TWA) [1]	266 mg/m ³
United Kingdom	WEL TWA (OEL TWA) [2]	200 ppm
United Kingdom	WEL STEL (OEL STEL)	333 mg/m ³
United Kingdom	WEL STEL (OEL STEL) [ppm]	250 ppm
Norway	Grenseverdi (OEL TWA) [1]	130 mg/m ³
Norway	Grenseverdi (OEL TWA) [2]	100 ppm
Norway	Korttidsverdi (OEL STEL)	162,5 mg/m ³ (value calculated)
Norway	Korttidsverdi (OEL STEL) [ppm]	125 ppm (value calculated)
Switzerland	MAK (OEL TWA) [1]	260 mg/m ³
Switzerland	MAK (OEL TWA) [2]	200 ppm
Switzerland	KZGW (OEL STEL)	1040 mg/m ³
Switzerland	KZGW (OEL STEL) [ppm]	800 ppm
Australia	OES TWA [1]	262 mg/m ³

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Methanol (67-56-1)		
Australia	OES TWA [2]	200 ppm
Australia	OES STEL	328 mg/m ³
Australia	OES STEL [ppm]	250 ppm
Canada (Quebec)	VECD (OEL STEL)	328 mg/m ³
Canada (Quebec)	VECD (OEL STEL) [ppm]	250 ppm
Canada (Quebec)	VEMP (OEL TWA)	262 mg/m ³
Canada (Quebec)	VEMP (OEL TWA) [ppm]	200 ppm
USA - ACGIH	ACGIH OEL TWA [ppm]	200 ppm
USA - ACGIH	ACGIH OEL STEL [ppm]	250 ppm
USA - IDLH	IDLH [ppm]	6000 ppm
USA - NIOSH	NIOSH REL TWA	260 mg/m ³
USA - NIOSH	NIOSH REL TWA [ppm]	200 ppm
USA - NIOSH	NIOSH REL STEL	325 mg/m ³
USA - NIOSH	NIOSH REL STEL [ppm]	250 ppm
USA - OSHA	OSHA PEL TWA [1]	260 mg/m ³
USA - OSHA	OSHA PEL TWA [2]	200 ppm
ethylbenzene (100-41-4)		
EU	IOEL TWA	442 mg/m ³
EU	IOEL TWA [ppm]	100 ppm
EU	IOEL STEL	884 mg/m ³
EU	IOEL STEL [ppm]	200 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (OEL TWA)	440 mg/m ³
Austria	MAK (OEL TWA) [ppm]	100 ppm
Austria	MAK (OEL STEL)	880 mg/m ³
Austria	MAK (OEL STEL) [ppm]	200 ppm
Belgium	OEL TWA	87 mg/m ³
Belgium	OEL TWA [ppm]	20 ppm
Belgium	OEL STEL	551 mg/m ³
Belgium	OEL STEL [ppm]	125 ppm
Bulgaria	OEL TWA	435 mg/m ³
Bulgaria	OEL STEL	545 mg/m ³
Croatia	GVI (OEL TWA) [1]	442 mg/m ³
Croatia	GVI (OEL TWA) [2]	100 ppm
Croatia	KGVI (OEL STEL)	884 mg/m ³
Croatia	KGVI (OEL STEL) [ppm]	200 ppm
Cyprus	OEL TWA	442 mg/m ³
Cyprus	OEL TWA [ppm]	100 ppm
Cyprus	OEL STEL	884 mg/m ³
Cyprus	OEL STEL [ppm]	200 ppm
Czech Republic	PEL (OEL TWA)	200 mg/m ³
Denmark	OEL TWA [1]	217 mg/m ³
Denmark	OEL TWA [2]	50 ppm

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ethylbenzene (100-41-4)		
Estonia	OEL TWA	442 mg/m ³
Estonia	OEL TWA [ppm]	100 ppm
Estonia	OEL STEL	884 mg/m ³
Estonia	OEL STEL [ppm]	200 ppm
Finland	HTP (OEL TWA) [1]	220 mg/m ³
Finland	HTP (OEL TWA) [2]	50 ppm
Finland	HTP (OEL STEL)	880 mg/m ³
Finland	HTP (OEL STEL) [ppm]	200 ppm
France	VME (OEL TWA)	88,4 mg/m ³ (restrictive limit)
France	VME (OEL TWA) [ppm]	20 ppm (restrictive limit)
France	VLE (OEL C/STEL)	442 mg/m ³ (restrictive limit)
France	VLE (OEL C/STEL) [ppm]	100 ppm (restrictive limit)
Germany	Occupational exposure limit value (mg/m ³) (TRGS900)	88 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	Occupational exposure limit value (ppm) (TRGS900)	20 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	BLV	250 mg/g creatinine Parameter: Mandelic acid plus Phenylglyoxylic acid - Medium: urine - Sampling time: end of shift
Gibraltar	OEL TWA	442 mg/m ³
Gibraltar	OEL TWA [ppm]	100 ppm
Gibraltar	OEL STEL	884 mg/m ³
Gibraltar	OEL STEL [ppm]	200 ppm
Greece	OEL TWA	435 mg/m ³
Greece	OEL TWA [ppm]	100 ppm
Greece	OEL STEL	545 mg/m ³
Greece	OEL STEL [ppm]	125 ppm
Hungary	AK (OEL TWA)	442 mg/m ³
Hungary	CK (OEL STEL)	884 mg/m ³
Ireland	OEL TWA [1]	442 mg/m ³
Ireland	OEL TWA [2]	100 ppm
Ireland	OEL STEL	884 mg/m ³
Ireland	OEL STEL [ppm]	200 ppm
Italy	OEL TWA	442 mg/m ³
Italy	OEL TWA [ppm]	100 ppm
Italy	OEL STEL	884 mg/m ³
Italy	OEL STEL [ppm]	200 ppm
Latvia	OEL TWA	442 mg/m ³
Latvia	OEL TWA [ppm]	100 ppm
Lithuania	IPRV (OEL TWA)	442 mg/m ³

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ethylbenzene (100-41-4)		
Lithuania	IPRV (OEL TWA) [ppm]	100 ppm
Lithuania	TPRV (OEL STEL)	884 mg/m ³
Lithuania	TPRV (OEL STEL) [ppm]	200 ppm
Luxembourg	OEL TWA	442 mg/m ³
Luxembourg	OEL TWA [ppm]	100 ppm
Luxembourg	OEL STEL	884 mg/m ³
Luxembourg	OEL STEL [ppm]	200 ppm
Malta	OEL TWA	442 mg/m ³
Malta	OEL TWA [ppm]	100 ppm
Malta	OEL STEL	884 mg/m ³
Malta	OEL STEL [ppm]	200 ppm
Netherlands	MAC-TGG (OEL TWA)	215 mg/m ³
Netherlands	MAC-15 (OEL STEL)	430 mg/m ³
Poland	NDS (OEL TWA)	200 mg/m ³
Poland	NDSch (OEL STEL)	400 mg/m ³
Portugal	OEL TWA	442 mg/m ³ (indicative limit value)
Portugal	OEL TWA [ppm]	100 ppm (indicative limit value)
Portugal	OEL STEL	884 mg/m ³ (indicative limit value)
Portugal	OEL STEL [ppm]	200 ppm (indicative limit value)
Romania	OEL TWA	442 mg/m ³
Romania	OEL TWA [ppm]	100 ppm
Romania	OEL STEL	884 mg/m ³
Romania	OEL STEL [ppm]	200 ppm
Slovakia	NPHV (OEL TWA) [1]	442 mg/m ³
Slovakia	NPHV (OEL TWA) [2]	100 ppm
Slovakia	NPHV (OEL C)	884 mg/m ³
Slovenia	OEL TWA	442 mg/m ³
Slovenia	OEL TWA [ppm]	100 ppm
Slovenia	OEL STEL	884 mg/m ³
Slovenia	OEL STEL [ppm]	200 ppm
Spain	VLA-ED (OEL TWA) [1]	441 mg/m ³ (indicative limit value)
Spain	VLA-ED (OEL TWA) [2]	100 ppm (indicative limit value)
Spain	VLA-EC (OEL STEL)	884 mg/m ³
Spain	VLA-EC (OEL STEL) [ppm]	200 ppm
Sweden	NGV (OEL TWA)	220 mg/m ³
Sweden	NGV (OEL TWA) [ppm]	50 ppm
Sweden	KTV (OEL STEL)	884 mg/m ³
Sweden	KTV (OEL STEL) [ppm]	200 ppm
United Kingdom	WEL TWA (OEL TWA) [1]	441 mg/m ³
United Kingdom	WEL TWA (OEL TWA) [2]	100 ppm
United Kingdom	WEL STEL (OEL STEL)	552 mg/m ³

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ethylbenzene (100-41-4)		
United Kingdom	WEL STEL (OEL STEL) [ppm]	125 ppm
Norway	Grenseverdi (OEL TWA) [1]	20 mg/m ³
Norway	Grenseverdi (OEL TWA) [2]	5 ppm
Norway	Korttidsverdi (OEL STEL)	30 mg/m ³ (value calculated)
Norway	Korttidsverdi (OEL STEL) [ppm]	10 ppm (value calculated)
Switzerland	MAK (OEL TWA) [1]	220 mg/m ³
Switzerland	MAK (OEL TWA) [2]	50 ppm
Switzerland	KZGW (OEL STEL)	220 mg/m ³
Switzerland	KZGW (OEL STEL) [ppm]	50 ppm
Australia	OES TWA [1]	434 mg/m ³
Australia	OES TWA [2]	100 ppm
Australia	OES STEL	543 mg/m ³
Australia	OES STEL [ppm]	125 ppm
Canada (Quebec)	VEMP (OEL TWA) [ppm]	20 ppm
USA - ACGIH	ACGIH OEL TWA [ppm]	20 ppm
USA - IDLH	IDLH [ppm]	800 ppm (10% LEL)
USA - NIOSH	NIOSH REL TWA	435 mg/m ³
USA - NIOSH	NIOSH REL TWA [ppm]	100 ppm
USA - NIOSH	NIOSH REL STEL	545 mg/m ³
USA - NIOSH	NIOSH REL STEL [ppm]	125 ppm
USA - OSHA	OSHA PEL TWA [1]	435 mg/m ³
USA - OSHA	OSHA PEL TWA [2]	100 ppm
xylene (1330-20-7)		
EU	IOEL TWA	435 mg/m ³
EU	IOEL TWA [ppm]	100 ppm
EU	IOEL STEL	655 mg/m ³
EU	IOEL STEL [ppm]	150 ppm
EU	Notes	Possibility of significant uptake through the skin (pure)
Austria	MAK (OEL TWA)	221 mg/m ³ (all isomers)
Austria	MAK (OEL TWA) [ppm]	50 ppm (all isomers)
Austria	MAK (OEL STEL)	442 mg/m ³
Austria	MAK (OEL STEL) [ppm]	100 ppm
Belgium	OEL TWA	221 mg/m ³
Belgium	OEL TWA [ppm]	50 ppm
Belgium	OEL STEL	442 mg/m ³
Belgium	OEL STEL [ppm]	100 ppm
Bulgaria	OEL TWA	221 mg/m ³ (pure)
Bulgaria	OEL TWA [ppm]	50 ppm (pure)
Bulgaria	OEL STEL	442 mg/m ³ (pure)
Bulgaria	OEL STEL [ppm]	100 ppm (pure)
Croatia	GVI (OEL TWA) [1]	221 mg/m ³
Croatia	GVI (OEL TWA) [2]	50 ppm

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xylene (1330-20-7)		
Croatia	KGVI (OEL STEL)	442 mg/m ³
Croatia	KGVI (OEL STEL) [ppm]	100 ppm
Cyprus	OEL TWA	221 mg/m ³
Cyprus	OEL TWA [ppm]	50 ppm
Cyprus	OEL STEL	442 mg/m ³
Cyprus	OEL STEL [ppm]	100 ppm
Czech Republic	PEL (OEL TWA)	200 mg/m ³
Denmark	OEL TWA [1]	109 mg/m ³ (Xylene, all isomers)
Denmark	OEL TWA [2]	25 ppm (Xylene, all isomers)
Estonia	OEL TWA	200 mg/m ³
Estonia	OEL TWA [ppm]	50 ppm
Estonia	OEL STEL	450 mg/m ³
Estonia	OEL STEL [ppm]	100 ppm
Finland	HTP (OEL TWA) [1]	220 mg/m ³
Finland	HTP (OEL TWA) [2]	50 ppm
Finland	HTP (OEL STEL)	440 mg/m ³
Finland	HTP (OEL STEL) [ppm]	100 ppm
France	VME (OEL TWA)	221 mg/m ³ (restrictive limit)
France	VME (OEL TWA) [ppm]	50 ppm (restrictive limit)
France	VLE (OEL C/STEL)	442 mg/m ³ (restrictive limit)
France	VLE (OEL C/STEL) [ppm]	100 ppm (restrictive limit)
Germany	Occupational exposure limit value (mg/m ³) (TRGS900)	440 mg/m ³ (all isomers)
Germany	Occupational exposure limit value (ppm) (TRGS900)	100 ppm (all isomers)
Germany	BLV	2000 mg/l Parameter: Methylhippuric(tolur-)acid (all isomers) - Medium: urine - Sampling time: end of shift (all isomers)
Gibraltar	OEL TWA	221 mg/m ³ (pure)
Gibraltar	OEL TWA [ppm]	50 ppm (pure)
Gibraltar	OEL STEL	442 mg/m ³ (pure)
Gibraltar	OEL STEL [ppm]	100 ppm (pure)
Greece	OEL TWA	435 mg/m ³
Greece	OEL TWA [ppm]	100 ppm
Greece	OEL STEL	650 mg/m ³
Greece	OEL STEL [ppm]	150 ppm
Hungary	AK (OEL TWA)	221 mg/m ³
Hungary	CK (OEL STEL)	442 mg/m ³
Ireland	OEL TWA [1]	221 mg/m ³
Ireland	OEL TWA [2]	50 ppm
Ireland	OEL STEL	442 mg/m ³
Ireland	OEL STEL [ppm]	100 ppm
Italy	OEL TWA	221 mg/m ³ (pure)

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xylene (1330-20-7)		
Italy	OEL TWA [ppm]	50 ppm (pure)
Italy	OEL STEL	442 mg/m ³ (pure)
Italy	OEL STEL [ppm]	100 ppm (pure)
Latvia	OEL TWA	221 mg/m ³
Latvia	OEL TWA [ppm]	50 ppm
Lithuania	IPRV (OEL TWA)	221 mg/m ³ (mixed isomers, pure)
Lithuania	IPRV (OEL TWA) [ppm]	50 ppm (mixed isomers, pure)
Lithuania	TPRV (OEL STEL)	442 mg/m ³ (mixed isomers, pure)
Lithuania	TPRV (OEL STEL) [ppm]	100 ppm (mixed isomers, pure)
Luxembourg	OEL TWA	221 mg/m ³
Luxembourg	OEL TWA [ppm]	50 ppm
Luxembourg	OEL STEL	442 mg/m ³
Luxembourg	OEL STEL [ppm]	100 ppm
Malta	OEL TWA	221 mg/m ³ (pure)
Malta	OEL TWA [ppm]	50 ppm (pure)
Malta	OEL STEL	442 mg/m ³ (pure)
Malta	OEL STEL [ppm]	100 ppm (pure)
Netherlands	MAC-TGG (OEL TWA)	210 mg/m ³
Netherlands	MAC-15 (OEL STEL)	442 mg/m ³
Poland	NDS (OEL TWA)	100 mg/m ³ (mixture of isomers)
Poland	NDSCh (OEL STEL)	200 mg/m ³ (mixture of isomers)
Portugal	OEL TWA	221 mg/m ³ (indicative limit value)
Portugal	OEL TWA [ppm]	50 ppm (indicative limit value)
Portugal	OEL STEL	442 mg/m ³ (indicative limit value)
Portugal	OEL STEL [ppm]	100 ppm (indicative limit value)
Romania	OEL TWA	221 mg/m ³ (pure)
Romania	OEL TWA [ppm]	50 ppm (pure)
Romania	OEL STEL	442 mg/m ³ (pure)
Romania	OEL STEL [ppm]	100 ppm (pure)
Slovakia	NPHV (OEL TWA) [1]	221 mg/m ³
Slovakia	NPHV (OEL TWA) [2]	50 ppm
Slovakia	NPHV (OEL C)	442 mg/m ³
Slovenia	OEL TWA	221 mg/m ³
Slovenia	OEL TWA [ppm]	50 ppm
Slovenia	OEL STEL	442 mg/m ³
Slovenia	OEL STEL [ppm]	100 ppm
Spain	VLA-ED (OEL TWA) [1]	221 mg/m ³ (indicative limit value)
Spain	VLA-ED (OEL TWA) [2]	50 ppm (indicative limit value)
Spain	VLA-EC (OEL STEL)	442 mg/m ³
Spain	VLA-EC (OEL STEL) [ppm]	100 ppm
Sweden	NGV (OEL TWA)	221 mg/m ³ (Xylene)

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xylene (1330-20-7)		
Sweden	NGV (OEL TWA) [ppm]	50 ppm (Xylene)
Sweden	KTV (OEL STEL)	442 mg/m ³ (Xylene)
Sweden	KTV (OEL STEL) [ppm]	100 ppm (Xylene)
United Kingdom	WEL TWA (OEL TWA) [1]	220 mg/m ³
United Kingdom	WEL TWA (OEL TWA) [2]	50 ppm
United Kingdom	WEL STEL (OEL STEL)	441 mg/m ³
United Kingdom	WEL STEL (OEL STEL) [ppm]	100 ppm
Norway	Grenseverdi (OEL TWA) [1]	108 mg/m ³
Norway	Grenseverdi (OEL TWA) [2]	25 ppm
Norway	Korttidsverdi (OEL STEL)	135 mg/m ³ (value calculated)
Norway	Korttidsverdi (OEL STEL) [ppm]	37,5 ppm (value calculated)
Switzerland	MAK (OEL TWA) [1]	435 mg/m ³
Switzerland	MAK (OEL TWA) [2]	100 ppm
Switzerland	KZGW (OEL STEL)	870 mg/m ³
Switzerland	KZGW (OEL STEL) [ppm]	200 ppm
Australia	OES TWA [1]	350 mg/m ³
Australia	OES TWA [2]	80 ppm
Australia	OES STEL	655 mg/m ³
Australia	OES STEL [ppm]	150 ppm
Canada (Quebec)	VECD (OEL STEL)	651 mg/m ³
Canada (Quebec)	VECD (OEL STEL) [ppm]	150 ppm
Canada (Quebec)	VEMP (OEL TWA)	434 mg/m ³
Canada (Quebec)	VEMP (OEL TWA) [ppm]	100 ppm
USA - ACGIH	ACGIH OEL TWA [ppm]	100 ppm
USA - ACGIH	ACGIH OEL STEL [ppm]	150 ppm
USA - OSHA	OSHA PEL TWA [1]	435 mg/m ³
USA - OSHA	OSHA PEL TWA [2]	100 ppm
m-phenylenebis(methylamine) (1477-55-0)		
Austria	MAK (OEL TWA)	0,1 mg/m ³
Austria	MAK (OEL STEL)	0,1 mg/m ³
Austria	OEL C	0,1 mg/m ³
Denmark	OEL C [ppm]	0,02 ppm
Denmark	OEL C	0,1 mg/m ³
Finland	OEL C	0,1 mg/m ³
France	VLE (OEL C/STEL)	0,1 mg/m ³
Ireland	OEL TWA [1]	0,1 mg/m ³
Ireland	OEL STEL	0,3 mg/m ³ (calculated)
Portugal	OEL C	0,1 mg/m ³
Norway	Takverdi (OEL C) [1]	0,1 mg/m ³
Switzerland	MAK (OEL TWA) [1]	0,1 mg/m ³
Canada (Quebec)	Plafond (OEL C)	0,1 mg/m ³
USA - ACGIH	ACGIH OEL C [ppm]	0,018 ppm

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m-phenylenebis(methylamine) (1477-55-0)		
USA - NIOSH	NIOSH REL C	0,1 mg/m ³
2,2'-iminodiethylamine; diethylenetriamine (111-40-0)		
Austria	MAK (OEL TWA)	4 mg/m ³
Austria	MAK (OEL TWA) [ppm]	1 ppm
Belgium	OEL TWA	4,3 mg/m ³
Belgium	OEL TWA [ppm]	1 ppm
Bulgaria	OEL TWA	4 mg/m ³
Croatia	GVI (OEL TWA) [1]	4,3 mg/m ³
Croatia	GVI (OEL TWA) [2]	1 ppm
Czech Republic	PEL (OEL TWA)	4 mg/m ³
Denmark	OEL TWA [1]	4 mg/m ³
Denmark	OEL TWA [2]	1 ppm
Estonia	OEL TWA	4,5 mg/m ³
Estonia	OEL TWA [ppm]	1 ppm
Estonia	OEL STEL	10 mg/m ³
Estonia	OEL STEL [ppm]	2 ppm
Finland	HTP (OEL TWA) [1]	4,3 mg/m ³
Finland	HTP (OEL TWA) [2]	1 ppm
Finland	HTP (OEL STEL)	13 mg/m ³
Finland	HTP (OEL STEL) [ppm]	3 ppm
France	VME (OEL TWA)	4 mg/m ³
France	VME (OEL TWA) [ppm]	1 ppm
Greece	OEL TWA	4 mg/m ³
Greece	OEL TWA [ppm]	1 ppm
Hungary	AK (OEL TWA)	4 mg/m ³
Hungary	CK (OEL STEL)	8 mg/m ³
Ireland	OEL TWA [1]	4 mg/m ³
Ireland	OEL TWA [2]	1 ppm
Ireland	OEL STEL	12 mg/m ³ (calculated)
Ireland	OEL STEL [ppm]	3 ppm (calculated)
Lithuania	IPRV (OEL TWA)	4,5 mg/m ³
Lithuania	IPRV (OEL TWA) [ppm]	1 ppm
Lithuania	TPRV (OEL STEL)	10 mg/m ³
Lithuania	TPRV (OEL STEL) [ppm]	2 ppm
Poland	NDS (OEL TWA)	4 mg/m ³
Poland	NDSch (OEL STEL)	12 mg/m ³
Portugal	OEL TWA [ppm]	1 ppm
Romania	OEL TWA	2 mg/m ³
Romania	OEL TWA [ppm]	0,5 ppm
Romania	OEL STEL	4 mg/m ³

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2,2'-iminodiethylamine; diethylenetriamine (111-40-0)		
Romania	OEL STEL [ppm]	1 ppm
Spain	VLA-ED (OEL TWA) [1]	4,3 mg/m ³
Spain	VLA-ED (OEL TWA) [2]	1 ppm
Sweden	NGV (OEL TWA)	4,5 mg/m ³
Sweden	NGV (OEL TWA) [ppm]	1 ppm
Sweden	KTV (OEL STEL)	10 mg/m ³
Sweden	KTV (OEL STEL) [ppm]	2 ppm
United Kingdom	WEL TWA (OEL TWA) [1]	4,3 mg/m ³
United Kingdom	WEL TWA (OEL TWA) [2]	1 ppm
United Kingdom	WEL STEL (OEL STEL)	12,9 mg/m ³ (calculated)
United Kingdom	WEL STEL (OEL STEL) [ppm]	3 ppm (calculated)
Norway	Grenseverdi (OEL TWA) [1]	4 mg/m ³
Norway	Grenseverdi (OEL TWA) [2]	1 ppm
Norway	Korttidsverdi (OEL STEL)	8 mg/m ³ (value calculated)
Norway	Korttidsverdi (OEL STEL) [ppm]	3 ppm (value calculated)
Switzerland	MAK (OEL TWA) [1]	4 mg/m ³
Switzerland	MAK (OEL TWA) [2]	1 ppm
Australia	OES TWA [1]	4,2 mg/m ³
Australia	OES TWA [2]	1 ppm
Canada (Quebec)	VEMP (OEL TWA)	4,2 mg/m ³
Canada (Quebec)	VEMP (OEL TWA) [ppm]	1 ppm
USA - ACGIH	ACGIH OEL TWA [ppm]	1 ppm
USA - NIOSH	NIOSH REL TWA	4 mg/m ³
USA - NIOSH	NIOSH REL TWA [ppm]	1 ppm

Additional information : Personal air monitoring :. Room air monitoring. Recommended monitoring procedures

8.2. Exposure controls

Engineering measure(s) : Local exhaust and general ventilation must be adequate to meet exposure standards. Organisational measures to prevent /limit releases, dispersion and exposure. See Section 7 for information on safe handling. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Provide eye shower and label its location conspicuously.

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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- Hand protection : Wear chemically resistant gloves (tested to EN374) . Suitable material: NBR (Nitrile rubber), Neoprene. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
- Eye protection : Use suitable eye protection (EN166): goggles. face shield
- Body protection : Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin. Use chemically protective clothing. Chemical resistant safety shoes
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Effective dust mask (EN 149). Half-face mask (DIN EN 140). full face mask (DIN EN 136). Filter type: ABEK + P (EN 143). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
- Thermal hazard protection : Not required for normal conditions of use. Use dedicated equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Paste.
- Colour : White. Yellow.
- Odour : Amines.
- Odour threshold : No data available
- pH : No data available
- pH solution : Not available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting / freezing point : No data available
- Freezing point : No data available
- Initial boiling point and boiling range : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Not applicable,liquid
- Vapour pressure : No data available
- Vapour density : No data available
- Relative density : 1,2 – 1,25
- Solubility : No data available.
Water: No data available
- Partition coefficient n-octanol/water : No data available
- Kinematic viscosity : No data available
- Dynamic viscosity : No data available
- Explosive properties : Not applicable.
- Oxidising properties : Not applicable.
- Explosive limits : No data available
- Particle size : Not available
- Particle size distribution : Not available
- Particle shape : Not available

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Particle aspect ratio : Not available
Particle aggregation state : Not available
Particle agglomeration state : Not available
Particle specific surface area : Not available
Particle dustiness : Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No data available

9.2.2. Other safety characteristics

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Non flammable. Exothermic reaction with: Epoxy resin, Peroxides. Reference to other sections 10.4 & 10.5.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Epoxy resin. Danger of explosion on contact with : Peroxides.

10.4. Conditions to avoid

See Section 7 for information on safe handling.

10.5. Incompatible materials

Sodium hypochlorite. Acids. oxidising substances. Peroxides. See Section 7 for information on safe handling.

10.6. Hazardous decomposition products

Reference to other sections 5.2. Carbon oxides (CO, CO₂). Nitrogen oxides. ammonia.

SECTION 11: Toxicological information

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

Acute toxicity : Harmful if swallowed.

ATE CLP (oral)	1550,388 mg/kg bodyweight
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine (35141-30-1)	
LD50/dermal/rabbit	> 16320 mg/kg
Methanol (67-56-1)	
LD50/oral/rat	6200 mg/kg
LD50/dermal/rabbit	15840 mg/kg
LC50/inhalation/4h/rat (ppm)	22500 ppm (Exposure time: 8 h)
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50/oral/rat	1200 mg/kg
LD50/dermal/rat	1280 mg/kg
ethylbenzene (100-41-4)	
LD50/oral/rat	3500 mg/kg
LD50/dermal/rabbit	15400 mg/kg

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ethylbenzene (100-41-4)	
LC50/inhalation/4h/rat	17,4 mg/l/4h
xylene (1330-20-7)	
LD50/oral/rat	3500 mg/kg
LD50/dermal/rabbit	> 4350 mg/kg
LC50/inhalation/4h/rat	29 mg/l/4h
LC50/inhalation/4h/rat (ppm)	6700
m-phenylenebis(methylamine) (1477-55-0)	
LD50/oral/rat	660 mg/kg
LD50/dermal/rabbit	2 g/kg
LC50/inhalation/4h/rat (ppm)	700 ppm/1h
2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
LD50/oral/rat	500 mg/kg
LD50/dermal/rabbit	672 mg/kg
LC50/inhalation/4h/rat	0,3 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns. pH: No data available
Serious eye damage/irritation	: Causes serious eye damage. pH: No data available
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

PSX Part B Hardener	
Kinematic viscosity	No data available

Other information : Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : Not applicable

11.2.2 Other information

Other information : Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : Very toxic to aquatic life with long lasting effects.

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Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine) (57214-10-5)	
LC50 - Fish [1]	25,9 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Methanol (67-56-1)	
LC50 - Fish [1]	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	> 10000 mg/l

ethylbenzene (100-41-4)	
LC50 - Fish [1]	11 – 18 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 - Fish [2]	4,2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
EC50 - Crustacea [1]	1,8 – 2,4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	4,6 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 72h - Algae [2]	2,6 – 11,3 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	> 438 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h - Algae [2]	1,7 – 7,6 mg/l (Species: Pseudokirchneriella subcapitata [static])

xylene (1330-20-7)	
LC50 - Fish [1]	3,3 mg/l
LC50 - Fish [2]	2,661 – 4,093 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 - Other aquatic organisms [1]	190 mg/l
EC50 - Crustacea [1]	3,82 mg/l (Exposure time: 48 h - Species: water flea)
EC50 - Crustacea [2]	0,6 mg/l (Exposure time: 48 h - Species: Gammarus lacustris)

m-phenylenebis(methylamine) (1477-55-0)	
LC50 - Fish [1]	87,6 mg/l (Exposure time: 96 h - Species: Oryzias latipes [semi-static])

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
LC50 - Fish [1]	248 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [static])
LC50 - Fish [2]	1014 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
EC50 - Crustacea [1]	16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	1164 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h - Algae [1]	345,6 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h - Algae [2]	592 mg/l (Species: Desmodesmus subspicatus)

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12.2. Persistence and degradability

PSX Part B Hardener	
Persistence and degradability	Not readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

PSX Part B Hardener	
Partition coefficient n-octanol/water	No data available

Methanol (67-56-1)	
BCF - Fish [1]	< 10
Partition coefficient n-octanol/water	-0,77

ethylbenzene (100-41-4)	
BCF - Fish [1]	15
Partition coefficient n-octanol/water	3,2

xylene (1330-20-7)	
BCF - Fish [1]	0,6 – 15
Partition coefficient n-octanol/water	2,77 – 3,15

2,2'-iminodiethylamine; diethylenetriamine (111-40-0)	
BCF - Fish [1]	0,3 – 1,7
Partition coefficient n-octanol/water	-1,3

12.4. Mobility in soil

PSX Part B Hardener	
Ecology - soil	No data available.

12.5. Results of PBT and vPvB assessment

PSX Part B Hardener	
Results of PBT assessment	No data available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Not applicable

12.7. Other adverse effects

Additional information : No data available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Do not allow to enter into surface water or drains. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling.
Additional information	: Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.
European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC)	: This material and its container must be disposed of as hazardous waste. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3259	3259	3259	3259	3259
14.2. UN proper shipping name				
AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))	AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))	Amines, solid, corrosive, n.o.s. (m-phenylenebis(methylamine))	AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))	AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
Transport document description				
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine)), 8, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine)), 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3259 Amines, solid, corrosive, n.o.s. (m-phenylenebis(methylamine)), 8, II, ENVIRONMENTALLY HAZARDOUS	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine)), 8, II, ENVIRONMENTALLY HAZARDOUS	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine)), 8, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

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- Overland transport

Classification code (ADR) : C8
 Special provisions : 274
 Limited quantities (ADR) : 1kg
 Excepted quantities (ADR) : E2
 Packing instructions (ADR) : P002, IBC08
 Special packing provisions (ADR) : B4
 Mixed packing provisions (ADR) : MP10
 Portable tank and bulk container instructions (ADR) : T3
 Portable tank and bulk container special provisions (ADR) : TP33
 Tank code (ADR) : SGAN, L4BN
 Vehicle for tank carriage : AT
 Transport category (ADR) : 2
 Special provisions for carriage - Packages (ADR) : V11
 Hazard identification number (Kemler No.) : 80
 Orange plates :



Tunnel restriction code : E
 EAC code : 2X

- Transport by sea

Special provisions (IMDG) : 274
 Limited quantities (IMDG) : 1 kg
 Excepted quantities (IMDG) : E2
 Packing instructions (IMDG) : P002
 IBC packing instructions (IMDG) : IBC08
 IBC special provisions (IMDG) : B21, B4
 Tank instructions (IMDG) : T3
 Tank special provisions (IMDG) : TP33
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-B
 Stowage category (IMDG) : A
 Segregation (IMDG) : SGG18, SG35
 Properties and observations (IMDG) : Colourless to yellowish solids with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. Cause burns to skin, eyes and mucous membranes. React violently with acids.

- Air transport

PCA Excepted quantities (IATA) : E2
 PCA Limited quantities (IATA) : Y844

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PCA limited quantity max net quantity (IATA) : 5kg
 PCA packing instructions (IATA) : 859
 PCA max net quantity (IATA) : 15kg
 CAO packing instructions (IATA) : 863
 CAO max net quantity (IATA) : 50kg
 Special provisions (IATA) : A3, A803
 ERG code (IATA) : 8L

- Inland waterway transport

Classification code (ADN) : C8
 Special provisions (ADN) : 274
 Limited quantities (ADN) : 1 kg
 Excepted quantities (ADN) : E2
 Equipment required (ADN) : PP, EP
 Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : C8
 Special provisions (RID) : 274
 Limited quantities (RID) : 1kg
 Excepted quantities (RID) : E2
 Packing instructions (RID) : P002, IBC08
 Special packing provisions (RID) : B4
 Mixed packing provisions (RID) : MP10
 Portable tank and bulk container instructions (RID) : T3
 Portable tank and bulk container special provisions (RID) : TP33
 Tank codes for RID tanks (RID) : SGAN, L4BN
 Transport category (RID) : 2
 Special provisions for carriage – Packages (RID) : W11
 Colis express (express parcels) (RID) : CE10
 Hazard identification number (RID) : 80

14.7. Maritime transport in bulk according to IMO instruments

Code: IBC : No data available.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Methanol ; ethylbenzene ; xylene
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3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine ; Methanol ; 2,4,6-tris(dimethylaminomethyl)phenol ; ethylbenzene ; xylene ; m-phenylenebis(methylamine) ; 2,2'-iminodiethylamine; diethylenetriamine
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine) ; N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]ethylenediamine ; ethylbenzene ; m-phenylenebis(methylamine)
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Methanol ; ethylbenzene ; xylene
69. Methanol	Methanol

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

France

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
4510.text	Dangereux pour l'environnement aquatique de catégorie aiguë 1 ou chronique 1.		
4510.1	La quantité totale susceptible d'être présente dans l'installation étant : 1. Supérieure ou égale à 100 t Quantité seuil bas au sens de l'article R. 511-10 : 100 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	A	1
4510.2	La quantité totale susceptible d'être présente dans l'installation étant : 2. Supérieure ou égale à 20 t mais inférieure à 100 t Quantité seuil bas au sens de l'article R. 511-10 : 100 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	DC	

Germany

Regulatory reference : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Listed in the 12. BImSchV (Annex I) under: 1.3.1
Quantity threshold for operational area under § 1 para. 1

- Sentence 1: 100000 kg
- Sentence 2: 200000 kg

Netherlands

Waterbezwaarlijkheid : A (1) - zeer giftig voor in water levende organismen kan in aquatische milieu op lange termijn schadelijke effecten veroorzaken

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

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NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Methanol,xylene are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Indication of changes:

2.3	Other hazards	Modified	
9.1	Physical and chemical properties	Modified	
11.2	Information on other hazards	Added	
12.6	Endocrine disrupting properties	Added	
12.7	Other adverse effects	Modified	
14	Transport information	Modified	
14.7	Maritime transport in bulk according to IMO instruments	Modified	
16	Other information	Modified	

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
	ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
	CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
	IATA = International Air Transport Association
	IMDG = International Maritime Dangerous Goods Code
	LEL = Lower Explosive Limit/Lower Explosion Limit
	UEL = Upper Explosion Limit/Upper Explosive Limit
	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue

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	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	NA = Not applicable
	NOEC = No observed effect concentration
	NOEL: no-observed-effect level
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	N.O.S. = Not Otherwise Specified
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WKG = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the : Safety Data Sheet: Supplier. ECHA (European Chemicals Agency), LOLI. datasheet

Training advice : Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

Other information : Classification - Assessment method: CLP Calculation method (Article 9).
Physicochemical hazard assessment: Information given is based on tests on the mixture itself.

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

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STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 1	Specific target organ toxicity – single exposure, Category 1
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs.
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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