

**1. Identification****Product identifier**

PE-10 Plus+, &amp; PE-201Plus+, Comp. A

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

Adhesive mortar for fastening elements A-component (resin)

**Uses advised against**

no restriction

**Details of the supplier of the safety data sheet**

Company name: Aerosmith Fastening Systems  
Street: 5621 Dividend Road  
Place: Indianapolis, Indiana 46241  
Telephone: Tel: 800-528-8183  
Internet: www.AerosmithFastening.com  
Responsible Department: info@aerosmithfastening.com

**Emergency phone number:**

Chemtrec: 1-800-424-9300 (Within Continental (USA))

**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Skin corrosion/irritation: Skin Irrit. 2  
Serious eye damage/eye irritation: Eye Dam. 1  
Respiratory or skin sensitization: Skin Sens. 1  
Reproductive toxicity: Repr. 1B

**Label elements****29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye damage  
May damage fertility or the unborn child

**Precautionary statements**

Avoid breathing vapors.  
Wash hands thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing and eye protection/face protection.  
If skin irritation or rash occurs: Get medical advice/attention.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.

**Hazards not otherwise classified**

People who are allergic to epoxide should avoid the use of the product.  
Use only outdoors or in a well-ventilated area.

### 3. Composition/information on ingredients

#### Mixtures

##### Hazardous components

CAS No	Components	Quantity
1675-54-3	2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	40 - < 50 %
9003-36-5	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	25 - < 35 %
2425-79-8	1,4-Bis(2,3-epoxypropoxy)butane	10 - < 15 %

#### **Further Information**

The actual concentration is withheld as a trade secret.

### 4. First-aid measures

#### Description of first aid measures

##### **General information**

First aider: Pay attention to self-protection! Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

##### **After inhalation**

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

##### **After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

##### **After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

##### **After ingestion**

Do NOT induce vomiting. Rinse mouth thoroughly with water. Medical treatment necessary.

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

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

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

Treat symptomatically.

### 5. Fire-fighting measures

#### Extinguishing media

##### **Suitable extinguishing media**

Foam

Extinguishing powder

Water spray jet

Carbon dioxide (CO2)

##### **Unsuitable extinguishing media**

Full water jet

#### Specific hazards arising from the chemical

Pyrolysis products, toxic

Carbon monoxide

#### Special protective equipment and precautions for fire-fighters

In case of fire and/or explosion do not breathe fumes.

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Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit

**Additional information**

Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

**Environmental precautions**

Avoid release to the environment. Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up****Other information**

Collect spillage. Take up mechanically, placing in appropriate containers for disposal. Suitable material for taking up: Sand

Treat the recovered material as prescribed in the section on waste disposal.

Retain contaminated washing water and dispose it.

**Reference to other sections**

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

Use only outdoors or in a well-ventilated area.

Wear personal protection equipment (refer to section 8).

Avoid contact with skin, eyes and clothes.

When using do not eat, drink or smoke.

**Advice on general occupational hygiene**

Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.

Wash hands thoroughly after handling. When using do not eat, drink or smoke.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

Store in a place accessible by authorized persons only.

Keep only in the original container in a cool, well-ventilated place.

**Hints on joint storage**

Do not store together with: Oxidizing agent, strong

Do not use for products which come into contact with the food stuffs.

**Further information on storage conditions**

storage temperature: 5 - 35°C

**8. Exposure controls/personal protection****Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

**Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear eye protection/face protection. Wear safety goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

**Hand protection**

Wear chemical resistant protective gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed. Observe OSHA regulations for respirator use (29 CFR 1910.134).

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

Physical state:	solid (pasty)	
Color:	light beige	
Odor:	characteristic	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		Non-flammable.
Lower explosion limits:		not applicable
Upper explosion limits:		not applicable
Flash point:		not applicable
Auto-ignition temperature:		not applicable
Decomposition temperature:		No data available
pH-Value:		The study does not need to be conducted because the substance is known to be insoluble in water.
Viscosity / kinematic:		not applicable
Water solubility:		The study does not need to be conducted because the substance is known to be insoluble in water.
Solubility in other solvents		
No data available		
Partition coefficient n-octanol/water:		not applicable
Vapor pressure:		No data available
Density (at 20 °C):		1,17 g/cm <sup>3</sup>
Relative vapour density:		not applicable
Particle characteristics:		No data available

**Other information**

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**Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not applicable

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Evaporation rate:

No data available

Solid content:

No data available

**10. Stability and reactivity****Reactivity**

No hazardous reaction when handled and stored according to provisions.

**Chemical stability**

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Violent reaction with: Oxidizing agent, strong

**Conditions to avoid**

Heat. Keep cool. Protect from sunlight.

**Incompatible materials**

Keep away from: Oxidizing agent

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information****Information on toxicological effects****Acute toxicity**

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

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 50 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
1675-54-3	2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane				
	oral	LD50 15000 mg/kg	Rat		
	dermal	LD50 23000 mg/kg	Rabbit		
9003-36-5	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol				
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		
2425-79-8	1,4-Bis(2,3-epoxypropoxy)butane				
	oral	LD50 1163 mg/kg	Rat		
	dermal	LD50 >2150 mg/kg	Rat		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

### Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/eye irritation: Causes serious eye damage

### Sensitizing effects

May cause an allergic skin reaction (2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane; Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol; 1,4-Bis(2,3-epoxypropoxy)butane)

### Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility or the unborn child (1,4-Bis(2,3-epoxypropoxy)butane)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

### Specific target organ toxicity (STOT) - single exposure

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

### Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA):

No ingredient of this mixture is listed.

Carcinogenicity (IARC):

Bisphenol A diglycidyl ether (Araldite) (CAS 1675-54-3) is listed in group 3.

Carcinogenicity (NTP):

No ingredient of this mixture is listed.

### Aspiration hazard

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

## 12. Ecological information

### Ecotoxicity

Toxic to aquatic life with long lasting effects.

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CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1675-54-3	2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane					
	Acute fish toxicity	LC50	2,0 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	11 mg/l	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	1,8 mg/l	48 h	Daphnia magna (Big water flea)	
9003-36-5	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol					
	Acute fish toxicity	LC50	2,54 mg/l	96 h	Danio rerio (zebrafish)	
	Acute algae toxicity	ErC50	1,8 mg/l	96 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	2,55 mg/l	48 h	Daphnia magna (Big water flea)	
2425-79-8	1,4-Bis(2,3-epoxypropoxy)butane					
	Acute fish toxicity	LC50	19,8 mg/l	96 h	Leuciscus idus (golden orfe)	
	Acute algae toxicity	ErC50	160 mg/l	72 h	Pseudokirchneriella subcapitata	

### Persistence and degradability

The product has not been tested.

### Bioaccumulative potential

The product has not been tested.

### Partition coefficient n-octanol/water

CAS No	Components	Log Pow
9003-36-5	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	3,3

### Mobility in soil

The product has not been tested.

### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### Other adverse effects

No information available.

### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## 13. Disposal considerations

### Waste treatment methods

#### **Disposal recommendations**

Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## 14. Transport information

**U.S. DOT 49 CFR 172.101**

**UN number or ID number:**

UN 3077

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**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Epoxy resin)

**Transport hazard class(es):** 9

**Packing group:** III

**Hazard label:** 9



**Marine transport (IMDG)**

**UN number or ID number:** UN 3077

**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Epoxy resin)

**Transport hazard class(es):** 9

**Packing group:** III

**Hazard label:** 9



**Special Provisions:** 274, 335, 966, 967, 969

**Limited quantity:** 5 kg

**Excepted quantity:** E1

**EmS:** F-A, S-F

**Other applicable information (marine transport)**

No dangerous goods in packaging until 5kg according 2.10.2.7 IMDG Code

**Air transport (ICAO-TI/IATA-DGR)**

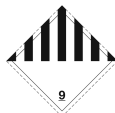
**UN number or ID number:** UN 3077

**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Epoxy resin)

**Transport hazard class(es):** 9

**Packing group:** III

**Hazard label:** 9



**Special Provisions:** A97 A158 A179 A197

**Limited quantity Passenger:** 30 kg G

**Passenger LQ:** Y956

**Excepted quantity:** E1

**IATA-packing instructions - Passenger:** 956

**IATA-max. quantity - Passenger:** 400 kg

**IATA-packing instructions - Cargo:** 956

**IATA-max. quantity - Cargo:** 400 kg

**Other applicable information (air transport)**

No dangerous goods in packaging until 5 kg according A197 IATA-DGA

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



**Special precautions for user**

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No information available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
not applicable

**15. Regulatory information**

**U.S. Regulations**

**National Inventory TSCA**

All ingredients of this mixture are included on the TSCA Inventory.

**National regulatory information**

SARA Section 311/312 Hazards:

2,2'-[(1-Methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3): Immediate (acute) health hazard

Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol (9003-36-5): Immediate (acute) health hazard

1,4-Bis(2,3-epoxypropoxy)butane (2425-79-8): Immediate (acute) health hazard

**State Regulations**

**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**16. Other information**

**Hazardous Materials Identification System (HMIS)**

Health: 2  
Physical Hazard: 1  
Personal Protection: -

**NFPA Hazard Ratings**

Health: 2  
Flammability: 1  
Reactivity: 1  
Unique Hazard:

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**Abbreviations and acronyms**

ADN: Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation

(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BCF: Bioconcentration factor

CAS: Chemical Abstracts Service

CLP: Classification, Labeling and Packaging

DMEL: Derived Minimal Effect level

DNEL: Derived No Effect Level

EC50: Effective concentration, 50%

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)

ICAO: International Civil Aviation Organization

IC50: Inhibitory concentration, 50%

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50%

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LD50: Lethal dose, 50%

NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

PBT: persistent, bioaccumulative and toxic

vPvB: very persistent and very bioaccumulative

PNEC: Predicted No Effect Concentration

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)

VOC: Volatile organic compound

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

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**1. Identification****Product identifier**

PE-10 Plus+, &amp; PE-21 Plus+, Comp. B

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

compound mortar B-component (hardener)

**Uses advised against**

no restriction

**Details of the supplier of the safety data sheet**

Company name: Aerosmith Fastening Systems  
Street: 5621 Dividend Road  
Place: Indianapolis, Indiana 46241  
Telephone: Tel: 800-528-8183  
Internet: www.AerosmithFastening.com  
Responsible Department: info@aerosmithfastening.com

**Emergency phone number:**

Chemtrec: 1-800-424-9300 (Within Continental (USA))

**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Skin corrosion/irritation: Skin Corr. 1A  
Serious eye damage/eye irritation: Eye Dam. 1  
Respiratory or skin sensitization: Skin Sens. 1

**Label elements****29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Causes severe skin burns and eye damage  
May cause an allergic skin reaction

**Precautionary statements**

Wash hands thoroughly after handling.  
Wear protective gloves/protective clothing and eye protection/face protection.  
If swallowed: Rinse mouth. Do NOT induce vomiting.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If skin irritation or rash occurs: Get medical advice/attention.

**Hazards not otherwise classified**

Contains Amines. May produce an allergic reaction.  
Use only outdoors or in a well-ventilated area.

**3. Composition/information on ingredients****Mixtures**

**Hazardous components**

CAS No	Components	Quantity
25513-64-8	2,2,4(or 2,4,4)-Trimethylhexane-1,6-diamine	1 - < 10 %
1477-55-0	m-Phenylenebis(methylamine)	1 - < 8 %
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol	1 - < 10 %
104-15-4	p-Toluenesulphonic acid	1 - < 5 %
112-24-3	3,6-Diazaoctanethylenediamine	< 1 %

**Further Information**

The actual concentration is withheld as a trade secret.

**4. First-aid measures**

**Description of first aid measures**

**General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

**After inhalation**

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Do NOT induce vomiting. Rinse mouth thoroughly with water. Medical treatment necessary.

**Most important symptoms and effects, both acute and delayed**

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures**

**Extinguishing media**

**Suitable extinguishing media**

- Foam
- Extinguishing powder
- Water spray jet
- Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media**

- Full water jet

**Specific hazards arising from the chemical**

- Pyrolysis products, toxic
- Carbon monoxide

**Special protective equipment and precautions for fire-fighters**

In case of fire and/or explosion do not breathe fumes.

Wear a self-contained breathing apparatus and chemical protective clothing.

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**Additional information**

Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

**Environmental precautions**

Avoid release to the environment. Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up****Other information**

Collect spillage. Take up mechanically, placing in appropriate containers for disposal. Suitable material for taking up: Sand

Treat the recovered material as prescribed in the section on waste disposal.

Retain contaminated washing water and dispose it.

**Reference to other sections**

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

Use only outdoors or in a well-ventilated area.

Wear personal protection equipment (refer to section 8).

Avoid contact with skin, eyes and clothes.

When using do not eat, drink or smoke.

**Advice on general occupational hygiene**

Take off contaminated clothing and wash it before reuse. Draw up and observe skin protection programme.

Wash hands thoroughly after handling. When using do not eat, drink or smoke.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

Store in a place accessible by authorized persons only.

Keep only in the original container in a cool, well-ventilated place.

**Hints on joint storage**

Do not store together with: Oxidizing agent, strong, Organic peroxides

Do not use for products which come into contact with the food stuffs.

**Further information on storage conditions**

Keep container tightly closed in a cool place.

storage temperature: 5 - 35°C

**8. Exposure controls/personal protection****Control parameters**

**Exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
1344-28-1	alpha-Alumina Respirable fraction	-	5		TWA (8 h)	PEL
1477-55-0	m-Xylene-alpha, alpha'-diamine	-	C 0.1		Ceiling	REL

**Additional advice on limit values**

This mixture contains quartz (inorganic filler) which is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

**Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear eye/face protection. Wear safety goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

**Hand protection**

Wear chemical resistant protective gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed. Observe OSHA regulations for respirator use (29 CFR 1910.134).

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

Physical state:	solid (pasty)
Color:	gray/red
Odor:	characteristic
Odour threshold:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable.
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Flash point:	not applicable
Auto-ignition temperature:	not applicable
Decomposition temperature:	No data available
pH-Value:	The study does not need to be conducted because the substance is known to be insoluble in water.
Viscosity / kinematic:	not applicable

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Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.
Solubility in other solvents	
No data available	
Partition coefficient n-octanol/water:	not applicable
Vapor pressure:	No data available
Density (at 20 °C):	1,80 g/cm <sup>3</sup>
Relative vapour density:	not applicable
Particle characteristics:	No data available

**Other information****Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not applicable

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Evaporation rate:

No data available

Solid content:

No data available

**10. Stability and reactivity****Reactivity**

see section 10.3

**Chemical stability**

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Violent reaction with: Oxidising agent

**Conditions to avoid**

see section 7.2

**Incompatible materials**

Oxidizing agent, strong

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information****Information on toxicological effects****Acute toxicity**

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

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 50 mg/l; ATE (inhalation dust/mist) &gt; 12,5 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
25513-64-8	2,2,4(or 2,4,4)-Trimethylhexane-1,6-diamine				
	oral	LD50 910 mg/kg	Rat		
1477-55-0	m-Phenylenebis(methylamine)				
	oral	LD50 930 mg/kg	Rat		OECD 401
	dermal	LD50 > 3100 mg/kg	Rabbit		OECD 402
	inhalation (4 h) dust/mist	LC50 1,34 mg/l	Rat		OECD 403
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol				
	oral	LD50 2169 mg/kg	Rat		
	dermal	LD50 > 1 mg/kg	Rat		
104-15-4	p-Toluenesulphonic acid				
	inhalation vapour	LC50 50 - 100 mg/l	Rat		
112-24-3	3,6-Diazaoctanethylenediamine				
	oral	LD50 2500 mg/kg	Rat		
	dermal	LD50 805 mg/kg	Rabbit	ECHA	

### Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage

Serious eye damage/eye irritation: Causes serious eye damage

### Sensitizing effects

May cause an allergic skin reaction (2,2,4(or 2,4,4)-Trimethylhexane-1,6-diamine; m-Phenylenebis(methylamine); 3,6-Diazaoctanethylenediamine)

### Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

### Specific target organ toxicity (STOT) - single exposure

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

### Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

### Aspiration hazard

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

## 12. Ecological information

### Ecotoxicity

Toxic to aquatic life with long lasting effects.

### Persistence and degradability

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The product has not been tested.

**Bioaccumulative potential**

The product has not been tested.

**Mobility in soil**

The product has not been tested.

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Other adverse effects**

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**13. Disposal considerations**

**Waste treatment methods**

**Disposal recommendations**

Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**14. Transport information**

**U.S. DOT 49 CFR 172.101**

**UN number or ID number:**

UN 3259

**Proper shipping name:**

AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)  
-Trimethylhexane-1,6-diamine; m-Phenylenebis(methylamine))

**Transport hazard class(es):**

8

**Packing group:**

II

Hazard label:

8



**Marine transport (IMDG)**

**UN number or ID number:**

UN 3259

**UN proper shipping name:**

AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)  
-Trimethylhexane-1,6-diamine; m-Phenylenebis(methylamine))

**Transport hazard class(es):**

8

**Packing group:**

II

Hazard label:

8



Special Provisions:

274

Limited quantity:

1 kg

Excepted quantity:

E2

EmS:

F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**UN number or ID number:**

UN 3259

**UN proper shipping name:**

AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)  
-Trimethylhexane-1,6-diamine; m-Phenylenebis(methylamine))

**Transport hazard class(es):**

8

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**Packing group:**

Hazard label:

II

8



Special Provisions:

A3 A803

Limited quantity Passenger:

5 kg

Passenger LQ:

Y844

Excepted quantity:

E2

IATA-packing instructions - Passenger:

859

IATA-max. quantity - Passenger:

15 kg

IATA-packing instructions - Cargo:

863

IATA-max. quantity - Cargo:

50 kg

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**Special precautions for user**

No information available.

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

not applicable

**15. Regulatory information**

**U.S. Regulations**

**National Inventory TSCA**

All ingredients of this mixture are included on the TSCA Inventory.

**National regulatory information**

SARA Section 311/312 Hazards:

2,2,4(or 2,4,4)-Trimethylhexane-1,6-diamine (25513-64-8): Immediate (acute) health hazard

m-Phenylenebis(methylamine) (1477-55-0): Immediate (acute) health hazard

2,4,6-Tris(dimethylaminomethyl)phenol (90-72-2): Immediate (acute) health hazard

p-Toluenesulphonic acid (104-15-4): Immediate (acute) health hazard

3,6-Diazaoctanethylenediamine (112-24-3): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Aluminum oxide (fibrous forms) (1344-28-1): De minimis limit = 1.0 %, Reportable threshold = Standard

**State Regulations**

**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**Additional information**

This mixture contains quartz filler which is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

**16. Other information**

**Hazardous Materials Identification System (HMIS)**

Health: 2

Physical Hazard: 1

Personal Protection: -

**NFPA Hazard Ratings**

Health:	2
Flammability:	
Reactivity:	1
Unique Hazard:	
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**Abbreviations and acronyms**

ADN: Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation  
(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)  
ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
BCF: Bioconcentration factor  
CAS: Chemical Abstracts Service  
CLP: Classification, Labeling and Packaging  
DMEL: Derived Minimal Effect level  
DNEL: Derived No Effect Level  
EC50: Effective concentration, 50%  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)  
ICAO: International Civil Aviation Organization  
IC50: Inhibitory concentration, 50%  
IMDG: International Maritime Code for Dangerous Goods  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
NOEC: No Observed Effect Concentration  
OECD: Organisation for Economic Co-operation and Development  
PBT: persistent, bioaccumulative and toxic  
vPvB: very persistent and very bioaccumulative  
PNEC: Predicted No Effect Concentration  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses (Regulations Concerning the International Carriage of Dangerous Goods by Rail)  
VOC: Volatile organic compound

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*