

PE-1000, Comp. A

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

1.1 Product identifier

PE-1000, Chemical Anchor, Comp. A.

1.2 Relevant identified uses of the substance or mixture

1.2.1 Use of the substance/mixture

Anchoring of threaded rods or reinforcing bars into concrete (A-component, resin).

1.3 Details of the supplier of the safety data sheet

Company name: Sozeri Industry Co. Inc.
Address: Ankara-Izmir Road Turgutlu 8. Km
Manisa/Turkey
Telephone: +90 212 276 62 62
Website: www.tic-m.com
Email: info@tic-m.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitization: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

2.2 Label elements

2.2.1 Regulation (EC) No. 1272/2008

Hazard components for labelling

2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)] bisoxirane
1,6-hexanediol diglycidyl ether

Signal word: Warning

Pictograms:



Hazard statements

- H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand
 P102 Keep out of the reach of children
 P264 Wash hands thoroughly after handling.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P501 Dispose of contents/container to an approved waste disposal plant in accordance with local/national regulations

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1675-54-3	2,2'-[(1-methylethylidene)bis(4,1phenyleneoxymethylene)]bisoxirane			30 - < 60 %
	216-823-5	603-073-00-2	01-2119456619-26	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
16096-31-4	1,6-hexanediol diglycidyl ether			10 - < 15 %
	240-260-4		01-2119463471-41	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General information

Take off immediately all contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

4.1.2 After inhalation

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

4.1.3 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.

4.1.4 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.

4.1.5 After ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Foam

Extinguishing powder

Water spray jet

Carbon dioxide (CO₂)

5.1.2 Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Pyrolysis products, toxic

Carbon monoxide

5.3 Advice for firefighters

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

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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Collect spillage. Take up mechanically, placing in appropriate containers for disposal. Suitable material
Treat the recovered material as prescribed in the section on waste disposal.
Retain contaminated washing water and dispose it.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 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.

7.2 Conditions for safe storage, including any incompatibilities

7.2.1 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.

7.2.2 Hints on joint storage

Do not store with oxidizing agent.

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

7.2.3 Further information on storage conditions

storage temperature: 5 - 35°C

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type	Exposure route	Effect	Value	
16096-31-4	1,6-hexanediol diglycidyl ether			
Worker DNEL, long-term	inhalation	systemic	10,57 mg/m ³	
Worker DNEL, long-term	inhalation	local	0,44 mg/m ³	
Worker DNEL, long-term	dermal	systemic	6,0 mg/kg bw/day	
Worker DNEL, long-term	dermal	local	0,0226 mg/cm ²	
Consumer DNEL, long-term	inhalation	systemic	5,29 mg/m ³	
Consumer DNEL, long-term	inhalation	local	0,27 mg/m ³	
Consumer DNEL, long-term	dermal	systemic	3,0 mg/kg bw/day	
Consumer DNEL, long-term	dermal	local	0,0136 mg/cm ²	
Consumer DNEL, acute	inhalation	systemic	5,29 mg/m ³	
Consumer DNEL, acute	dermal	systemic	1,7 mg/kg bw/day	
Consumer DNEL, acute	dermal	local	0,0136 mg/cm ²	
Consumer DNEL, long-term	oral	systemic	1,5 mg/kg bw/day	
Consumer DNEL, acute	oral	systemic	1,5 mg/kg bw/day	

PNEC values

CAS No	Substance	
Environmental compartment	Value	
16096-31-4	1,6-hexanediol diglycidyl ether	
Freshwater	0,0115 mg/l	
Marine water	0,00115 mg/l	
Freshwater sediment	0,283 mg/kg	
Marine sediment	0,283 mg/kg	

8.1.1 Additional advice on limit values

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.

8.2 Exposure controls



8.2.1 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.

8.2.2 Protective and hygiene measures

Take off contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. When using do not eat, drink or smoke.

8.2.3 Eye/face protection

Wear eye protection/face protection. Wear safety glasses.

8.2.4 Hand protection

Recommended material: NBR (Nitrile rubber)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

8.2.5 Skin protection

Wear suitable protective clothing.

8.2.6 Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection with combination filter A1P2 (organic gases/vapors and particles) recommended.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid (pasty)
Color:	light beige
Odor:	characteristic
pH-Value:	not determined

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not applicable

Flammability

Solid:	not determined
Gas:	not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined

Auto-ignition temperature

Solid: not determined
Gas: not applicable
Decomposition temperature: not determined

Oxidizing properties

Not oxidizing.
Vapor pressure: not determined
Density (at 20 °C): 1,45 g/cm³
Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined.
Partition coefficient: not determined
Vapor density: not determined
Evaporation rate: not determined

9.2 Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions

Violent reaction with: Oxidizing agent, strong

10.4 Incompatible materials

Keep away from: Oxidizing agent

10.5 Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
16096-31-4	1,6-hexanediol diglycidyl ether				
	oral	LD50 mg/kg 2190	Rat		OECD 401

	dermal	LD50 mg/kg >2000	Rat		OECD 402
	inhalation(4h) vapor	LC50 mg/l 0,035	Rat		

11.1.2 Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

11.1.3 Sensitizing effects

May cause an allergic skin reaction(2,2'-[(1-methylethylidene) bis(4,1-phenyleneoxymethylene)] bisoxirane;1,6-hexanediol diglycidyl ether).

11.1.4 Carcinogenic/mutagenic/toxic effects for reproduction

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

11.1.5 STOT-single exposure

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

11.1.6 STOT-repeated exposure

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

11.1.7 Aspiration hazard

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

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

121 Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
16096-31-4	1,6-hexanediol diglycidyl ether					
	Acute fish toxicity	LC50 30 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute crustacea toxicity	EC50 47 mg/l	48 h	Daphnia magna (Big water flea)		

122 Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
16096-31-4	1,6-hexanediol diglycidyl ether			
	OECD 301D	71 %	28	

123 Bio accumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

Cas No	Chemical name	Log Pow
16096-31-4	1,6-hexanediol diglycidyl ether	0,822

BCF

Cas No	Chemical name	BCF	Species	Source
16096-31-4	1,6-hexanediol diglycidyl ether	3,57		

124 Mobility in soil

The product has not been tested.

125 Results of PBT and vPvB assessment

The product has not been tested.

126 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.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Disposal recommendations




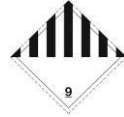
Subsequent waste code numbers of the European Waste Catalogue are considered as recommendations.

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.

SECTION 14: Transport information

	Land transport (ADR/RID)	Inland waterways transport (ADN)	Marine transport (IMDG)	Air transport (ICAO-TI/IATA-DGR)
14. 1 UN number	UN 3077	UN 3077	UN 3077	UN 3077
14. 2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14. 3 Transport hazard class (es)	9	9	9	9
14. 4 Packing group	III	III	III	III

Hazard label	9 	9 	9 	9 
Classification code:	M7	M7		
Special Provisions:	274 335 375 601	274 335 375 601	274, 335, 966, 967, 969	A97 A158 A179 A197
Limited quantity:	5 kg	5 kg	5 kg	30 kg
Excepted quantity:	E1	E1	E1	E1
Transport category:	3	3		
EmS			F-A, S-F	
Hazard No:	90	90		
Tunnel restriction code:	-	-	-	-
Other applicable information	No dangerous goods in packaging until 5 kg according special instruction 375 ADR/RID	No dangerous goods in packaging until 5 kg according special instruction 375 ADN	No dangerous goods in packaging until 5 kg according 2.10.2.7 IMDG Code	No dangerous goods in packaging until 5 kg according A197 IATA-DGA
Passenger LQ	-	-	-	Y956
IATA-packing instructions - Passenger	-	-	-	956
IATA-max. quantity - Passenger:	-	-	-	400 kg
IATA-packing instructions - Cargo:	-	-	-	956
IATA-max. quantity - Cargo:	-	-	-	400 kg

145 Environmental hazards

environmentally hazardous: yes



146 Special precautions for users

No information available.

SECTION 15: Regulatory information

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

Many countries have legislation that requires chemical producers or suppliers to prepare MSDS. In Canada, this legislation is generally called WHMIS (Workplace Hazardous Materials Information System). In the US, the OSHA Hazard Communication Rule (29 CFR1900.1200) prescribes what information is to be provided by MSDS. This MSDS has been prepared in the 16-section format consistent with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Other agencies utilizing this format include the American National Standards Institute (ANSI)- American National Standard for Hazardous Industrial Chemicals, the International Organization for Standardization (ISO), the European Union (EU), and the International Labor Organization (ILO).

With respect to the products that are the subject of this MSDS, the WHMIS requirements of the Hazardous Products Act and Controlled Products Regulations do NOT apply to products classified as "manufactured articles". Section 10 of the Hazardous Products Act indicates by definition that a "manufactured article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, under normal conditions of use, will not release or otherwise cause a person to be exposed to a controlled product. In this definition, "exposure" means in a sufficient quantity to pose a hazard. Exposure is limited to the toxicological hazards and means potential for physical contact that could result in damage or potential for entry into the body by a route that could cause harm. "Normal condition of use" does not include an installation process. The subject products fall within the scope of this definition and as "manufactured articles" do not require a MSDS. The information provided in this MSDS relates to the nature of the raw materials used to make the manufactured articles.

15.1.1 National regulatory information

Water hazard class (D):

2 - obviously hazardous to water.

Skin resorption/Sensitization:

Causes allergic hypersensitivity reactions.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2.

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, bioaccumulate and toxic

vPvB: very persistent and very bio accumulative

PNEC: Predicted No Effect Concentration

REACH: Registration, Evaluation, Authorization 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

Aquatic Chronic 2: Long-term aquatic hazard, Category 2

Aquatic Chronic 3: Long-term aquatic hazard, Category 3

Eye Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Sens. 1: Skin sensitization, Category 1

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Further Information

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.

PE-1000, Comp. B

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

1.1 Product identifier

PE-1000, Chemical Anchor, Comp. B.

1.2 Relevant identified uses of the substance or mixture

1.2.1 Use of the substance/mixture

Anchoring of threaded rods or reinforcing bars into concrete (A-component, hardener).

1.3 Details of the supplier of the safety data sheet

Company name: Sozeri Yapi Elemanlari San.Tic.lth.lhr.Ltd.Sti.
Address: Ankara-Izmir Road Turgutlu 8. Km
Manisa/Turkey
Telephone: +90 212 276 62 62
Website: www.tic-m.com
Email: info@tic-m.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

2.2 Label elements

2.2.1 Regulation (EC) No. 1272/2008

Hazard components for labelling

2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine;
m-Phenylenebis(methylamine);
2,4,6-Tris(dimethylaminomethyl)phenol

Signal word: Danger

Pictograms:



Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of the reach of children
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.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

2.3 Other hazards

Contains Amines. May produce an allergic reaction.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

SECTION 3: Composition/information on ingredients

3.1 Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	Reach No	EC No
	GHS Classification			
25513-64-8	2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine			25 - < 35 %
	247-063-2		01-2119560598-25	

	Acute Tox. 4, Skin Corr. 1, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H302 H314 H318 H317 H412			
1477-55-0	m-Phenylenebis(methylamine)			1 - < 15 %
	216-032-5		01-2119480150-50	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1B, Aquatic Chronic 3; H332 H302 H314 H318 H317 H412			
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol			5 - < 10 %
	202-013-9		01-2119560597-27	
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H302 H315 H319			
104-15-4	p-Toluenesulphonic acid			1 - < 5 %
	203-180-0	016-030-00-2	01-2119538811-39	
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General information

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

4.1.2 After inhalation

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

4.1.3 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.

4.1.4 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.

4.1.5 After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Foam

Extinguishing powder

Water spray jet

Carbon dioxide (CO₂)

5.1.2 Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Pyrolysis products, toxic

Carbon monoxide

5.3 Advice for firefighters

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

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

Additional information

Suppress gases/vapors/mists with water spray jet.

Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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.

6.4 Reference to other sections

Personal protection equipment: see section 8

Safe handling: see section 7

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 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.

7.2 Conditions for safe storage, including any incompatibilities

7.2.1 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.

7.2.2 Hints on joint storage

Do not store together with: Oxidizing agent.
Do not use for products which come into contact with the food stuffs.

7.2.3 Further information on storage conditions

Keep container tightly closed in a cool place.
storage temperature: 5 - 35°C

7.3 Specific end use(s)

see section 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type	Exposure route	Effect	Value	
25513-64-8	2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine			
Consumer DNEL, long-term	oral	systemic	0,05 mg/kg bw/day	
1477-55-0	m-Phenylenebis(methylamine)			
Worker DNEL, long-term	inhalation	systemic	1,2 mg/m ³	
Worker DNEL, long-term	inhalation	local	0,2 mg/m ³	
Worker DNEL, long-term	dermal	systemic	0,33 mg/kg bw/day	
104-15-4	p-Toluene sulfonic acid			
Worker DNEL, long-term	dermal	systemic	7,6 mg/kg bw/day	
Worker DNEL, long-term	inhalation	systemic	53,6 mg/m ³	
Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day	
Consumer DNEL, long-term	inhalation	systemic	8,7 mg/m ³	
Consumer DNEL, long-term	oral	systemic	0,05 mg/kg bw/day	

PNEC values

CAS No	Substance	Value
Environmental compartment		
25513-64-8	2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine	
Freshwater		0,102 mg/l
Marine water		0,01 mg/l
Freshwater sediment		0,662 mg/kg
Marine sediment		0,062 mg/kg
Micro-organisms in sewage treatment plants (STP)		
1477-55-0	m-Phenylenebis(methylamine)	
Freshwater		0,094 mg/l
Marine water		0,009 mg/l
Freshwater sediment		0,43 mg/kg
Marine sediment		0,043 mg/kg
Micro-organisms in sewage treatment plants (STP)		
		10 mg/l
Soil		0,045 mg/kg
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol	
Freshwater		0,084 mg/l
Marine water		0,0084 mg/l
Micro-organisms in sewage treatment plants (STP)		
		0,2 mg/l
104-15-4	p-Toluene sulfonic acid	
Freshwater		0,073 mg/l
Marine water		0,0073 mg/l
Freshwater sediment		0,0577 mg/kg
Marine sediment		0,00577 mg/kg
Soil		0,016 mg/kg

Additional advice on limit values

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.

8.2 Exposure controls



8.2.1 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.

8.2.2 Protective and hygiene measures

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

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

8.2.3 Eye/face protection

Wear eye protection/face protection. Wear safety glasses.

8.2.4 Hand protection

Recommended material: NBR (Nitrile rubber)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

8.2.5 Skin protection

Wear suitable protective clothing.

8.2.6 Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection with combination filter A1P2 (organic gases/vapors and particles) recommended.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid (pasty)
Color:	grey/ red
Odor:	characteristic
pH-Value:	not determined

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not applicable

Flammability

Solid:	not determined
Gas:	not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined

Auto-ignition temperature

Solid:	not determined
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.

Vapor pressure:	not determined
Density (at 20 °C):	1,42 g/cm ³

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined.

Partition coefficient: not determined

Vapor density: not determined

Evaporation rate: not determined

9.2 Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3

10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions

Violent reaction with: Oxidizing agent, strong

10.4 Conditions to avoid

See section 7.2

10.5 Incompatible materials

Oxidizing agent, strong

10.6 Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
25513-64-8	2,2,4(or 2,4,4)-Trimethylhexane-1,6-diamine				
	oral	ATE mg/kg 500			
1477-55-0	m-Phenylenebis (methylamine)				
	oral	LD50 mg/kg 930	Rat		
	dermal	LD50 mg/kg 2000	Rabbit		
	inhalation (1 h) vapor	LC50 3,89 mg/l	Rat		
	inhalation aerosol	ATE 1,5 mg/l			

90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol				
	oral	LD50 mg/kg 2169	Rat		
	dermal	LD50 mg/kg 1280	Rat		

11.1.2 Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

11.1.3 Sensitizing effects

May cause an allergic skin reaction. (2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine; m-Phenylenebis(methylamine))

11.1.4 Carcinogenic/mutagenic/toxic effects for reproduction

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

11.1.5 STOT-single exposure

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

11.1.6 STOT-repeated exposure

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

11.1.7 Aspiration hazard

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

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
25513-64-8	2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine					
	Acute algae toxicity	ErC50 mg/l 43,5	72 h	Selenastrum capricornutum		OECD 201
	Fish toxicity	NOEC mg/l 10,9	30 d	Brachydanio rerio (zebrafish)		OECD 210
	Crustacea toxicity	NOEC mg/l 1,02	21 d	Daphnia magna (Big water flea)		OECD 211
1477-55-0	m-Phenylenebis(methylamine)					
	Acute fish toxicity	LC50 mg/l 87,6	96 h	Oryzias latipes (Ricefish)		OECD 203
	Acute algae toxicity	ErC50 mg/l 32,1	72 h	Selenastrum capricornutum		OECD 201
	Acute crustacea toxicity	EC50 mg/l 15,2	48 h	Daphnia magna (Big water flea)		OECD 202
	Crustacea toxicity	NOEC 4,7 mg/l	21 d	Daphnia magna (Big water flea)		OECD 211
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol					
	Acute fish toxicity	LC50 175 mg/l	96 h	Cyprinus carpio (Common Carp)		
	Acute algae toxicity	ErC50 84 mg/l	72 h	Desmodesmus subspicatus		OECD 201
	Algae toxicity	NOEC mg/l 6,25	3 d			

12.2 Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
25513-64-8	2,2,4(or 2,2,4)-Trimethyl-1,6-hexanediamine			
		7 %	28	

12.3 Bio accumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

Cas No	Chemical name	Log Pow
25513-64-8	2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine	-0,3
1477-55-0	m-Phenylenebis(methylamine)	0,18
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol	0,219
104-15-4	p-Toluene sulfonic acid	0,93

BCF

Cas No	Chemical name	BCF	Species	Source
1477-55-0	m-Phenylenebis(methylamine)	2,69		

12.4 Mobility in soil

The product has not been tested.

12.5 Results of PBT and vPvB assessment

The product has not been tested.

12.6 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.





SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 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.

SECTION 14: Transport information

	Land transport (ADR/RID)	Inland waterways transport (ADN)	Marine transport (IMDG)	Air transport (ICAO-TI/IATA-DGR)
14. 1 UN number	UN 3259	UN 3259	UN 3259	UN 3259
14.2UNproper shipping name	AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine; m-Phenylenebis(methylamine))	AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine; m-Phenylenebis(methylamine))	AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine; m-Phenylenebis(methylamine))	AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-Trimethyl-1,6-hexanediamine; m-Phenylenebis(methylamine))
14. 3 Transport hazard class (es)	8	8	8	8
14. 4 Packing group	II	II	II	II
Hazard label	 8	 8	 8	 8
Classification code:	C8	C8	-	-
Special Provisions:	274	274	274	A3 A803
Limited quantity:	1 kg	1 kg	1 kg	5 kg
Excepted quantity:	E2	E2	E2	E2
Transport category:	2	-	-	-
EmS	-	-	F-A, S-B	-
Hazard No:	80	90	-	-
Tunnel restriction code:	E	-	-	-
Passenger LQ	-	-	-	Y844
IATA-packing instructions - Passenger	-	-	-	859
IATA-max. quantity - Passenger:	-	-	-	15 kg
IATA-packing instructions - Cargo:	-	-	-	863
IATA-max. quantity - Cargo:	-	-	-	50 kg

145 Environmental hazards
Environmentally hazardous: Yes



14.6 Special precautions for users

No information available.

SECTION 15: Regulatory information

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

Many countries have legislation that requires chemical producers or suppliers to prepare MSDSs. In Canada, this legislation is generally called WHMIS (Workplace Hazardous Materials Information System). In the US, the OSHA Hazard Communication Rule (29 CFR1900.1200) prescribes what information is to be provided by MSDS. This MSDS has been prepared in the 16-section format consistent with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Other agencies utilizing this format include the American National Standards Institute (ANSI)- American National Standard for Hazardous Industrial Chemicals, the International Organization for Standardization (ISO), the European Union (EU), and the International Labor Organization (ILO).

With respect to the products that are the subject of this MSDS, the WHMIS requirements of the Hazardous Products Act and Controlled Products Regulations do NOT apply to products classified as "manufactured articles". Section 10 of the Hazardous Products Act indicates by definition that a "manufactured article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, under normal conditions of use, will not release or otherwise cause a person to be exposed to a controlled product. In this definition, "exposure" means in a sufficient quantity to pose a hazard. Exposure is limited to the toxicological hazards and means potential for physical contact that could result in damage or potential for entry into the body by a route that could cause harm. "Normal condition of use" does not include an installation process. The subject products fall within the scope of this definition and as "manufactured articles" do not require a MSDS. The information provided in this MSDS relates to the nature of the raw materials used to make the manufactured articles.

15.1.01 National regulatory information

Water hazard class (D):

2 - obviously hazardous to water.

Skin resorption/Sensitization:

Causes allergic hypersensitivity reactions.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 5.

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, bio accumulative and toxic vPvB: very persistent and very bio accumulative

PNEC: Predicted No Effect Concentration

REACH: Registration, Evaluation, Authorization 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

Acute Tox. 4: Acute toxicity, Category 4

Aquatic Chronic 3: Long-term aquatic hazard, Category 3

Eye Dam. 1: Serious eye damage/eye irritation, Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Corr. 1B: Skin corrosion/irritation, Category 1B

Skin Irrit. 2: Serious eye damage/eye irritation, Category 2

Skin Sens. 1: Skin sensitization, Category 1

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Corr. 1; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

- H302 Harmful if swallowed.
- 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.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

Further Information

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.