SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

AC•Tech 2170 FC, Part A

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

Use of the substance/mixture

Chemical product for construction and industry

1.3 Details of the supplier of the safety data sheet

Manufacturer:	Allied Construction Technologies, Inc. 3302 Croft Street Norfolk, VA 23513	Phone:(757)-855-5100 Email: Team@actechperforms.com
Emergency Phone:	US & Canada Infotrac: (800) 535-5053 (Contract #104212)	International Infotrac: 1-352-323-3500

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

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

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

2.2 Label Elements

Hazardous components which must be listed on the label

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)] dioxirane

reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

Signal word: Warning

Pictograms: Warning

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

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Special labeling of certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

NFPA and HMIS Rating

NFPA Rating	Health: 2	Fire: 1	Reactivity: 0
HMIS Rating	Health: 2	Flammability: 1	Physical Hazard: 0

SECTION 3: Composition/Information on Ingredients

3.1 Mixtures

Hazardous Components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
500-033-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	50 - < 75 %
25068-38-6	Xi - Irritant, N - Dangerous for the environment R36/38-43-51-53	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411	
01-2119456619-26		
500-006-8	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-F-(epichlorhydrin)	10 - < 25 %
9003-36-5	Xi - Irritant, N - Dangerous for the environment R38-43-51-53	
	Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411	
01-2119454392-40		
240-260-4	1,6-bis(2,3-epoxypropoxy)hexane	5 - < 10 %
16096-31-4	Xi - Irritant R36/38-43-52-53	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 3; H315 H319 H317 H412	
01-2119463471-41		
271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	5 - < 10 %
68609-97-2	Xi - Irritant R38-43	
	Skin Irrit. 2, Skin Sens. 1; H315 H317	
01-2119485289-22		

For Full text R-,H- and EUH-phrases: see section 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General Information

Change contaminated clothing. If you feel unwell due to accidental exposure, seek medical attention immediately. (show MSDS if possible)

After inhalation

Move to fresh air and keep warm and rest.

After contact with skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious) . Sip water. Do not induce vomiting. Immediately get medical attention.

4.2. Symptoms and effects, both acute and delayed

Allergic reactions. Treat symptomatically.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media

- alcohol resistant foam.
- Water spray.
- Carbon dioxide (CO2).
- dry extinguishing powder.

Unsuitable extinguishing media

-High power water jet.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire:

-Carbon monoxide

-Carbon dioxide

-Nitrogen oxides (NOx).

5.3 Advise for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

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

Wear personal protection equipment. See protective measures under point 7 and 8. Provide adequate ventilation.

6.2 Environmental precautions

Do not empty into drains or the aquatic environment. Cover drains. Clean contaminated objects and areas thoroughly observing environmental regulations. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Remove mechanically, placing in appropriate containers for disposal.

6.4 References to other sections

Personal protection equipment refer to chapter 8.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Wear protective clothing. Close container tightly once it is no longer in use. Store away from direct sunlight, heat, spark, fire and other sources of ignition. Empty containers may still contain mixed or unmixed materials, which may be hazardous.

7.2 Storage

Keep in closed, original container. Store container in a cool, dry and ventilated area. Protect from direct sunlight an heat or heating elements. Do not store near spark, fire and other sources of ignition. Keep away from food, beverages and animal feed. Keep away from oxidizing agents. Protect from frost, humidity and heat.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
1675-54-3	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane			
,				
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.			
Worker DNEL, long-term		dermal	systemic	3,9 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	13,8 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	
Freshwater		0,0072 mg/l
Marine water		0,00072 mg/l
Freshwater sediment		66,77 mg/kg
Marine sediment		6,677 mg/kg
Soil		80,12 mg/kg

Additional advice on limit values

To date, no national critical lmit values exist.

8.2 Exposure controls

Skin Protection

Use protective clothing to prevent skin contact. Wear nitrile or butyl rubber gloves. Ensure the chemical resistance of the gloves is suitable for use with these chemicals.

Eye Protection

Wear tight-fitting, protective goggles or face shield.

Respiratory Protection

When applying material in confined spaces, use appropriate NIOSH mask. When applying in vented spaces, respiratory protection is not required unless there are sensitivities to chemicals listed in MSDS.

Body Protection

For protection against direct skin contact, ensure protective clothing covers all exposed skin areas.

General Protection & Hygiene

Avoid contact with skin, eyes and clothing. In case of skin sensitivity, protect skin with protective skin cream. Remove contaminated clothing immediately. Do not eat, drink or smoke in or around application area. Wash hands before taking breaks and at the end of application.

Environmental Exposure Controls

Do not allow to enter into water or drains. If entry into waterways, soils or drains occurs, inform authorities.

SECTION 9: Physical and Chemical Properties

Physical State: Liquid

Color:	Transparent
Odor:	Low
PH-Value:	No Data Available

Changes in physical state

Melting point	No Data Available
Initial Boiling point and boiling range	No Data Available
Sublimation point	No Data Available
Softening point	No Data Available
Pour Point	No Data Available
Flash point:	> 203 °F

Flammability

Solid	No Data Available
Gas	No Data Available
Lower explosion limits	No Data Available
Upper explosion limits	No Data Available
Ignition temperature	No Data Available

Auto-ignition temperature

Solid	No Data Available
Gas	No Data Available
Decompression Temperature	No Data Available
Vapor Pressure	No Data Available
Density at 73 °F	~1.1 g/cm^3
Partition coefficient:	No Data Available
Viscosity/Dynamic (at 73 °F)	~850 CPS
Viscosity/Kinematic	No Data Available
Flow Time	No Data Available
Vapor Density	No Data Available
Evaporation Rate	No Data Available

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reactions by handling and stock-keeping according to the guidelines.

10.2 Chemical Stability

No decomposition if used according to guidelines.

10.3 Possibility of hazardous reactions

Reacts with:

-Amines

-Acid

-Alkalis

10.4 Conditions to avoid

No Data Available

10.5 Incompatible materials

No Data Available

10.6 Hazardous decomposition products

Gas/Vapors, irritant

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	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		
	Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		
933999-84-9	reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)				
	oral	LD50 2190 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		
68609-97-2	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.				
	dermal	LD50 > 10000 mg/kg	Rat		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitizing effects

Contains epoxy constituents. May produce an allergic reaction.May cause an allergic skin reaction. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane; Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl) oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane; reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2); oxirane, mono[(C12-14-alkyloxy)methyl] derivs.)

May cause heavy allergic reactions with chronic effects after a sensitization and a later exposure by very low amounts.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Aspiration hazard

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

SECTION 12: Ecological Information

12.1 Toxicity

CAS No	Chemical name						
	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	algae		
	Acute crustacea toxicity	EC50	1,8 mg/l	48 h	Daphnia magna		
	Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane						
	Acute fish toxicity	LC50	2,54 mg/l	96 h	fish		
	Acute algae toxicity	ErC50	1,8 mg/l	72 h	algae		
	Acute crustacea toxicity	EC50	2,55 mg/l	48 h	Daphnia magna		
933999-84-9	reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)						
	Acute fish toxicity	LC50	30 mg/l	96 h	Leuciscus idus (golden orfe)		

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1675-54-3	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	3,242
	Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane	3,6

12.4 Mobility in soil

No information available.

Further Information

Toxic to aquatic life with long lasting effects. Do not empty into drains or aquatic environments.

SECTION 13: Disposal Considerations

13.1 Product Disposal

Containers that have been completely emptied may be recycled per federal, state and local regulations and disposal guidelines. Containers that have no been emptied or contain product residue may still contain hazardous materials and should be disposed of in accordance with federal, state and local regulations regarding hazardous material disposal.

SECTION 14: Transportation Information

Land transport (ADR/RID)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9
Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L
Transport category: 3
Hazard No: 90
Tunnel restriction code: E

Other applicable information (land transport)

E1

Inland waterways transport (ADN)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Marine pollutant: yes
Special Provisions: 274, 335
Limited quantity: 5 L
EmS: F-A, S-F

Other applicable information (marine transport)

E1

Air transport (ICAO)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
Hazard label: 9
Special Provisions: A97 A158
Limited quantity Passenger: 30 kg G
IATA-packing instructions - Passenger: 964

IATA-max. quantity - Passenger: 450 L

IATA-packing instructions - Cargo: 964

IATA-max. quantity -Cargo: 450 L

Other applicable information (air transport)

E1

: Y964

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

Danger releasing substance: epoxy resin

SECTION 15: Regulatory Information

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

EU regulatory information

2004/42/EC (VOC): < 500 g/l (A+B)

Subcategory according to Directive 2004/42/EC: Two-pack reactive performance coatings for specific end use such as floors- Solvent-borne coatings, VOC limit value: 500 g/l

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

SECTION 16: Other Information

Changes

This data sheet contains changes from the previous version in section(s): 14.

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-phrases (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.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Further Information

To the best of our knowledge, the information contained in this SDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data on this SDS relate only to the specific material designated herein. We do not assume any liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

AC•Tech 2170 FC, Part B

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

Use of the substance/mixture

Chemical product for construction and industry

1.3 Details of the supplier of the safety data sheet

Manufacturer:	Allied Construction Technologies, Inc. 3302 Croft Street Norfolk, VA 23513	Phone:(757)-855-5100 Email: Team@actechperforms.com
Emergency Phone:	US & Canada Infotrac: (800) 535-5053 (Contract #104212)	International Infotrac: 1-352-323-3500

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

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

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory/skin sensitization: Skin Sens. 1

Reproductive toxicity: Repr. 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause respiratory irritation.

Suspected of damaging fertility. Suspected of damaging the unborn child.

Harmful to aquatic life with long lasting effects.

2.2 Label Elements

Hazardous components which must be listed on the label

m-phenylenebis(methylamine)

4-tert-butylphenol

trimethylhexane-1,6-diamine

Signal word: Danger

Pictograms:




Hazard statements

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H361fd	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.

NFPA and HMIS Rating

NFPA Rating	Health: 2	Fire: 1	Reactivity: 0
HMIS Rating	Health: 2	Flammability: 1	Physical Hazard: 0

SECTION 3: Composition/Information on Ingredients

3.1 Mixtures

Hazardous Components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1477-55-0	m-phenylenebis(methylamine)			10 - < 25 %
	216-032-5		01-2119480150-50	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3; H332 H302 H314 H317 H412			
98-54-4	4-tert-butylphenol			10 - < 25 %
	202-679-0	604-090-00-8	01-2119489419-21	
	Repr. 2, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H361f H315 H318 H400 H410			
25620-58-0	trimethylhexane-1,6-diamine			5 - < 10 %
	247-134-8		01-2119560598-25	
	Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, Skin Sens. 1; H302 H314 H318 H317			

For Full text R-,H- and EUH-phrases: see section 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General Information

Change contaminated clothing. If you feel unwell due to accidental exposure, seek medical attention immediately. (show MSDS if possible)

After inhalation

Move to fresh air and keep warm and rest.

After contact with skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious) . Sip water. Do not induce vomiting. Immediately get medical attention.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media

- alcohol resistant foam.
- Water spray.
- Carbon dioxide (CO2).
- dry extinguishing powder.

Unsuitable extinguishing media

-High power water jet.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire:

-Carbon monoxide

-Carbon dioxide

-Nitrogen oxides (NOx).

5.3 Advise for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

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

Wear personal protection equipment. See protective measures under point 7 and 8. Provide adequate ventilation.

6.2 Environmental precautions

Do not empty into drains or the aquatic environment. Cover drains. Clean contaminated objects and areas thoroughly observing environmental regulations. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Remove mechanically, placing in appropriate containers for disposal.

6.4 References to other sections

Personal protection equipment refer to chapter 8.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Wear protective clothing. Close container tightly once it is no longer in use. Store away from direct sunlight, heat, spark, fire and other sources of ignition. Empty containers may still contain mixed or unmixed materials, which may be hazardous.

7.2 Storage

Keep in closed, original container. Store container in a cool, dry and ventilated area. Protect from direct sunlight an heat or heating elements. Do not store near spark, fire and other sources of ignition. Keep away from food, beverages and animal feed. Keep away from oxidizing agents. Protect from frost, humidity and heat.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

PNEC values

CAS No	Substance
Environmental compartment	Value
1477-55-0	m-phenylenebis(methylamine)
Freshwater	0,094 mg/l
Marine water	0,0094 mg/l

Additional advice on limit values

To date, no national critic limit values exist.

8.2 Exposure Controls

Skin Protection

Use protective clothing to prevent skin contact. Wear nitrile or butyl rubber gloves. Ensure the chemical resistance of the gloves is suitable for use with these chemicals.

Eye Protection

Wear tight-fitting, protective goggles or face shield.

Respiratory Protection

When applying material in confined spaces, use appropriate NIOSH mask. When applying in vented spaces, respiratory protection is not required unless there are sensitivities to chemicals listed in MSDS.

Body Protection

For protection against direct skin contact, ensure protective clothing covers all exposed skin areas.

General Protection & Hygiene

Avoid contact with skin, eyes and clothing. In case of skin sensitivity, protect skin with protective skin cream. Remove contaminated clothing immediately. Do not eat, drink or smoke in or around application area. Wash hands before taking breaks and at the end of application.

Environmental Exposure Controls

Do not allow to enter into water or drains. If entry into waterways, soils or drains occurs, inform authorities.

SECTION 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Light Yellow
Odor:	Low
PH-Value:	12

Changes in physical state

Melting point	No Data Available
Initial Boiling point and boiling range	> 392 °F
Sublimation point	No Data Available
Softening point	No Data Available
Pour Point	No Data Available
Flash point:	> 212 °F

Flammability

Solid	No Data Available
Gas	No Data Available
Lower explosion limits	No Data Available
Upper explosion limits	No Data Available
Ignition temperature	> 662 °F

Auto-ignition temperature

Solid	No Data Available

Gas	No Data Available
Decompression Temperature	No Data Available
Vapor Pressure	No Data Available
Density at 73 °F	~1.0 g/cm^3
Partition coefficient:	No Data Available
Viscosity/Dynamic (at 73 °F)	~700 CPS
Viscosity/Kinematic	No Data Available
Flow Time	No Data Available
Vapor Density	No Data Available
Evaporation Rate	No Data Available

SECTION 10: Stability and Reactivity

10.1 Reactivity

No dangerous reactions by handling and stock-keeping according to the guidelines.

10.2 Chemical Stability

No decomposition if used according to guidelines.

10.3 Possibility of hazardous reactions

No Data Available

10.4 Conditions to avoid

No Data Available

10.5 Incompatible materials

No Data Available

10.6 Hazardous decomposition products

No Data Available

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
1477-55-0	m-phenylenebis(methylamine)					
	oral	LD50	930 mg/kg	Rat		
	dermal	LD50 mg/kg	3100	Rabbit		
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
98-54-4	4-tert-butylphenol					
	oral	LD50 mg/kg	4000	Rat		
	dermal	LD50 mg/kg	2318	Rabbit		
25620-58-0	trimethylhexane-1,6-diamine					
	oral	LD50	910 mg/kg	Rat		

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitizing effects

May cause an allergic skin reaction. (m-phenylenebis(methylamine)), (trimethylhexane-1,6-diamine)

May cause heavy allergic reactions with chronic effects after a sensitization and a later exposure by very low amounts.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility. (4-tert-butylphenol)

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

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

Aspiration hazard

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

Observations relevant to classification

Sensitization/Irritant effect on the respiratory tract: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

SECTION 12: Ecological Information

12.1 Toxicity

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
1477-55-0	m-phenylenebis(methylamine)						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50	20,3 mg/l	72 h	Selenastrum capricornutum		
	Acute crustacea toxicity	EC50	15,2 mg/l	48 h	Daphnia magna		

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

Further Information

Harmful to aquatic life with long lasting effects. Do not empty into drains or the aquatic environment.

SECTION 13: Disposal Considerations

13.1 Product Disposal

Containers that have been completely emptied may be recycled per federal, state and local regulations and disposal guidelines. Containers that have no been emptied or contain product residue may still contain hazardous materials and should be disposed of in accordance with federal, state and local regulations regarding hazardous material disposal.

SECTION 14: Transportation Information

Land transport (ADR/RID)

14.1. UN number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C7
Special Provisions:	274
Limited quantity:	1 L
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Other applicable information (land transport)

E2

Inland waterways transport (ADN)

14.1. UN number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C7
Special Provisions:	274
Limited quantity:	1 L

Other applicable information (inland waterways transport)

E2

Marine transport (IMDG)

14.1. UN number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Marine pollutant:	no
Special Provisions:	274
Limited quantity:	1 L

EmS: F-A, S-B

Other applicable information (marine transport)

E2

Air transport (ICAO)

14.1. UN number: UN 2735

14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine))

14.3. Transport hazard class(es): 8

14.4. Packing group: II

Hazard label: 8

Special Provisions: A3 A803

Limited quantity Passenger: 0.5 L

IATA-packing instructions - Passenger: 851

IATA-max. quantity - Passenger: 1 L

IATA-packing instructions - Cargo: 855

IATA-max. quantity -Cargo: 30 L

Other applicable information (air transport)

E2

: Y840

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory Information

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

EU regulatory information

Authorizations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

4-tert-butylphenol

2004/42/EC (VOC): < 500 g/l (A+B)

Subcategory according to Directive 2004/42/EC: Two-pack reactive performance coatings for specific end use such as floors-Solvent-borne coatings, VOC limit value: 500 g/l

National regulatory information

Water contaminating class (D): 2 - water contaminating

SECTION 16: Other Information

Changes

This data sheet contains changes from the previous version in section(s): 3.

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

Classification	Classification procedure
Skin Corr. 1A; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Repr. 2; H361f	Calculation method
Aquatic Chronic 2; H411	

Relevant H- and EUH-phrases (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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

To the best of our knowledge, the information contained in this SDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data on this SDS relate only to the specific material designated herein. We do not assume any liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.