

Safety Data Sheet

CERAMIC POLYMER
A CHESTERTON INTERNATIONAL SUBSIDIARY

according to Regulation (EC) No 1907/2006

Ceramic-Polymer SF/LF-SW Part B

Print date: 09.08.2017

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

1.1. Product identifier

Ceramic-Polymer SF/LF-SW Part B

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

Use of the substance/mixture

Coatings and paints, fillers, putties, thinners

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name: Ceramic Polymer GmbH
Street: Daimlerring 9
Place: DE-32289 Rödinghausen
Telephone: +49(0) 52 23 / 9 62 76-0
e-mail: info@ceramic-polymer.de
Internet: www.ceramic-polymer.de
Responsible Department: info@ceramic-polymer.de

Telefax: +49(0) 52 23 / 9 62 76-17

1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1A

Specific target organ toxicity - repeated exposure: STOT RE 2

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.

May cause damage to organs through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

4,4'-methylenebis(cyclohexylamine)

m-phenylenebis(methylamine)

3-aminopropyltriethoxysilane

Signal word: Danger

Pictograms:



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Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P309+P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P362+P364	Take off contaminated clothing and wash it before reuse.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1761-71-3	4,4'-methylenebis(cyclohexylamine)			25 - <50 %
	217-168-8		01-2119541673-38	
	Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1, STOT RE 2; H302 H314 H317 H373			
1477-55-0	m-phenylenebis(methylamine)			10 - <25 %
	216-032-5		01-2119480150-50	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1, Skin Sens. 1, Aquatic Chronic 3; H332 H302 H314 H317 H412 EUH071			
919-30-2	3-aminopropyltriethoxysilane			1 - <5 %
	213-048-4	612-108-00-0	01-2119480479-24	
	Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1; H302 H314 H317			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice immediately.
Do not wash with: Solvents/Thinner

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After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

Do NOT induce vomiting.

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

- Causes severe skin burns and eye damage. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

- Gastrointestinal complaints

- Allergic reactions

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

First Aid, decontamination, treatment of symptoms.

After contact with skin, wash immediately with plenty of Lutrol.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Dry extinguishing powder. Carbon dioxide (CO₂). alcohol resistant foam. Water spray jet

Unsuitable extinguishing media

High power water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Special protective equipment for firefighters Protective clothing. In case of fire: Wear self-contained breathing apparatus.

Co-ordinate fire-fighting measures to the fire surroundings.

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**

See protective measures under point 7 and 8.

Provide adequate ventilation.

Personal protection equipment: see section 8

Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains.

Adverse environmental effects

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).

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

6.4. Reference to other sections

See protective measures under point 7 and 8.

Disposal: see section 13

SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Advice on safe handling

See section 8. Wear personal protection equipment (refer to section 8). Keep container tightly closed.
People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Advice on protection against fire and explosion

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Further information on handling

Avoid contact with skin, eyes and clothes.
Avoid breathing dust/fume/gas/mist/vapours/spray.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

Advice on storage compatibility

Keep away from:
Food and feedingstuffs
Oxidising agent

Further information on storage conditions

Keep away from:
Frost
Heat
Humidity

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1761-71-3	4,4'-methylenebis(cyclohexylamine)			
Worker DNEL, long-term		inhalation	systemic	1 mg/m ³
Worker DNEL, long-term		dermal	systemic	0,1 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,21 mg/m ³
Consumer DNEL, long-term		dermal	systemic	0,06 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,06 mg/kg bw/day
1477-55-0	m-phenylenebis(methylamine)			
Worker DNEL, long-term		dermal	systemic	0,33 mg/kg bw/day
Worker DNEL, long-term		inhalation	local	0,2 mg/m ³
Worker DNEL, long-term		inhalation	systemic	1,2 mg/m ³
919-30-2	3-aminopropyltriethoxysilane			
Consumer DNEL, acute		dermal	systemic	5 mg/kg bw/day

PNEC values

CAS No	Substance	Environmental compartment	Value
1761-71-3	4,4'-methylenebis(cyclohexylamine)		
		Freshwater	0,08 mg/l
		Marine water	0,008 mg/l
		Freshwater sediment	14,6 mg/kg
		Marine sediment	1,46 mg/kg
		Secondary poisoning	0,556 mg/kg
		Micro-organisms in sewage treatment plants (STP)	0,08 mg/l
		Soil	4,56 mg/kg
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
919-30-2	3-aminopropyltriethoxysilane		
		Freshwater	0,33 mg/l
		Marine water	0,033 mg/l
		Freshwater sediment	1,2 mg/kg
		Marine sediment	0,12 mg/kg
		Soil	0,05 mg/kg

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8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

Eye/face protection

Suitable eye protection:
Eye glasses with side protection
goggles

Hand protection

Tested protective gloves must be worn: DIN EN 374
NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)
Thickness of the glove material $\geq 0,4$ mm
Breakthrough times and swelling properties of the material must be taken into consideration.
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.
Wearing time with occasional contact (splashes): max. 480 min. (NBR (Nitrile rubber))
Wearing time with permanent contact 240 - 480 min (NBR (Nitrile rubber))
Observe the wear time limits as specified by the manufacturer.
Wear cotton undermitten if possible.

Skin protection

Protective clothing

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
Combination filtering device (EN 14387) A-P3
Self-contained respirator (breathing apparatus) (DIN EN 133)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	transparent
Odour:	characteristic

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	> 95 °C

Flammability

Solid:	not determined
Gas:	not determined

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Explosive properties

No information available.

Lower explosion limits: not determined

Upper explosion limits: not determined

Ignition temperature: not determined

Auto-ignition temperature

Solid: not determined

Gas: not determined

Decomposition temperature: not determined

Oxidizing properties

No information available.

Vapour pressure: not determined

Density (at 20 °C): ~1 g/cm³

Water solubility: not determined

Solubility in other solvents

No information available.

Partition coefficient: not determined

Viscosity / dynamic: not determined

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 1043,7 mg/kg

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CAS No	Chemical name			
	Exposure route	Dose	Species	Source
1761-71-3	4,4'-methylenebis(cyclohexylamine)			
	oral	LD50 > 670 - < 1000 mg/kg	Rat	Journal of Applied T
	dermal	LD50 2110 mg/kg	Rabbit	Study report (1986)
1477-55-0	m-phenylenebis(methylamine)			
	oral	LD50 1180 mg/kg	Mouse	OECD Guideline 401
	dermal	LD50 > 3100 mg/kg	Rat	TK 11813 was applied
	inhalative vapour	ATE 11 mg/l		
	inhalative (4 h) aerosol	LC50 1,34 mg/l	Rat	
919-30-2	3-aminopropyltriethoxysilane			
	oral	LD50 1780 mg/kg	Rat	RTECS
	dermal	LD50 3800 mg/kg	Rabbit	RTECS

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

May cause an allergic skin reaction. (4,4'-methylenebis(cyclohexylamine); m-phenylenebis(methylamine); 3-aminopropyltriethoxysilane)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (4,4'-methylenebis(cyclohexylamine))

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

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CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
1761-71-3	4,4'-methylenebis(cyclohexylamine)				
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Leuciscus idus	Study report (1988)
	Acute algae toxicity	ErC50 140 - 200 mg/l	72 h		Study report (1990)
	Acute crustacea toxicity	EC50 9,24 mg/l	48 h	Daphnia magna	Springer Verlag, Ber
	Crustacea toxicity	NOEC 4 mg/l	21 d	Daphnia magna	Study report (2003)
	Acute bacteria toxicity	(ca. 100 mg/l)	0,5 h	activated sludge, industrial	Study report (1986)
1477-55-0	m-phenylenebis(methylamine)				
	Acute fish toxicity	LC50 87,6 mg/l	96 h	Oryzias latipes (Ricefish)	
	Acute algae toxicity	ErC50 20,3 mg/l	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50 15,2 mg/l	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC 10,5 mg/l	3 d	Selenastrum capricornutum	
	Crustacea toxicity	NOEC 4,7 mg/l	21 d	Daphnia magna (Big water flea)	
919-30-2	3-aminopropyltriethoxysilane				
	Acute algae toxicity	ErC50 603 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50 331 mg/l	48 h	Daphnia magna	

12.2. Persistence and degradability

No information available.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
1761-71-3	4,4'-methylenebis(cyclohexylamine)			
	OECD 302B/ ISO 9888/ EEC 92/69/V, C.9	<10%	28	
1477-55-0	m-phenylenebis(methylamine)			
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	49 %	28	

12.3. Bioaccumulative potential

No information available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1761-71-3	4,4'-methylenebis(cyclohexylamine)	2,2
1477-55-0	m-phenylenebis(methylamine)	0,18
919-30-2	3-aminopropyltriethoxysilane	0,31

BCF

CAS No	Chemical name	BCF	Species	Source
1761-71-3	4,4'-methylenebis(cyclohexylamine)	< 6	Cyprinus carpio	Study report (2002)
1477-55-0	m-phenylenebis(methylamine)	<0,3		

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), 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
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), 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
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), m-phenylenebis(methylamine))
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 2735
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14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine), 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
Passenger LQ:	Y840
Excepted quantity:	E2
IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No information available.

SECTION 15: Regulatory information

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

National regulatory information

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

4,4'-methylenebis(cyclohexylamine)
m-phenylenebis(methylamine)
3-aminopropyltriethoxysilane

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
(Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
CAS: Chemical Abstracts Service (division of the American Chemical Society)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures,
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
EC50: Effectice concentration, 50 percent
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

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.

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