SAFETY DATA SHEET

PLASTI CHEMIE
Produktionsgesellschaft mbH

[in accordance with the regulation no. 1907/2006/EG (REACH)]

Revision: 02.08.2018 Version: 2/ENG

SECTION 1: INDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifier

Trade name: **PLASTIPUR® 570 Component A**

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

Relevant identified uses: Polyaspartic Resin, Polyaspartic-Topcoat.

Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Supplier: **Plasti-Chemie Produktionsgesellschaft mbH**
Address: Falgardring 1
D-08223 Falkenstein
Germany

Telephone/Fax number: +49 3745/74432-0 / +49 3745/74432-27

E-mail address for a competent person responsible of sds: volkmar.lull@plasti-chemie.de

Further information provided by: Mr. Volkmar Lull, +49 3745/74432-0

1.4 Emergency telephone number

Chemtrec: 1-800-424-9300 for US
+1 703-527-3887 outside US
Europa 112
Österreich +43 1 406 43 43
Belgien Poison center (BE): +32 70 245 245
Dänemark Poison Control Hotline (DK): +45 82 12 12 12
Finnland Poison Information Centre (FI):+358 9 471 977
Frankreich ORFILA (FR): + 01 45 42 59 59
Deutschland Giftnotruf Berlin, Tel. 030 30686 790
Poison Center Nord: +49 551 19240 (24h erreichbar, Deutsch und Englisch)
Poison Information Centre Erfurt: +49 361 730730 (Gemeinsames Giftinformationszentrum der Länder Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt und Thüringen c/o HELIOS Klinikum Erfurt Nordhäuser Straße 74, 99089 Erfurt)
Irland National Poisons Information Centre (IE): +353 1 8379964
Island +354 543 2222
Italien Poison Center, Milan (IT): +39 02 6610 1029
Luxemburg 112
Niederlande National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norwegen Poisons Information (NO):+ 47 22 591300
Portugal Poison Information Center (PT): +351 21 330 3284
Spanien Poison Information Service (ES): +34 91 562 04 20
Schweden Poisons Information Center (SV):+46 8 33 12 31
Schweiz Poison Center: Tel 145; +41 44 251 51 51
Großbritannien NHS Direct (UK): +44 (0) 845 46 47; 111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to regulation (EG) 1272/2008/WE
Skin Sens. 1 H317, Eye Sens. 1B H317, Aquatic Chronic 3 H412
May cause an allergic skin reaction. Harmful to aquatic life with long-lasting effects.

2.2 Label elements

This substance is graded and classified according to (EG) No. 1272/2008 [CLP].

Hazard symbols and signal words

Warning

Product identifier

Contains:	Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethylester Aspartic Ester

Hazard statements

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long-lasting effects.

Precaution statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash before reuse.

2.3 Other hazards

The components of this mixture do not meet the criteria for PBT or vPvB in accordance of Annex XIII of REACH.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable.

3.2 Mixture

CAS: 136210-30-5 Index-Nr.: 607-521-00-8 REACH Reg. Nr.: 01-0000017556-64-0000	Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester: Classification acc. to 1272/2008/WE: Skin Sens. 1 H317, Aquatic Chronic 3 H412	60 - 80 %
CAS: 152637-10-0	Aspartic Ester: Classification acc. to 1272/2008/WE: Skin Sens. 1B H317, Aquatic Chronic 3 H412	20 - 30 %
CAS: 1318-02-1 EINECS: 215-283-8 REACH Reg. Nr.: 01-211942034-49-XXXX	Zeolite (crystalline aluminosilicate): Classification acc. to 1272/2008/WE: -	2,5 - 3,5 %
	Deaerating Polymer mixture: Classification acc. to 1272/2008/WE: -	1,5 - 2,5 %
CAS: 27306-78-1 Index-Nr.: 608-078-3	Polyether-modified Trisiloxane: Classification acc. to 1272/2008/WE: Acute Tox. 4 H302, Eye Irrit. 2 H319, Acute Tox. 4 H332, Aquatic Chronic 2 H411	0,1 - 0,4 %

Additional information: For the wording of the hazard statements refer to section 16.

ABSCHNITT 4: FIRST AID MEASUREMENTS

4.1 Description of first aid measurements

	General information:	Immediately remove all contaminated clothing.
	Inhalation:	Take affected persons out into fresh air.
		In case of breathing difficulties seek medical attention.
	Skin contact:	Wash immediately with soap and water and rinse thoroughly.
		Consult doctor if symptoms persist.
	Eye contact:	Wash the eye with the eyelid open for several minutes under running water.
		Protect unharmed eye.
		Consult doctor if symptoms persist.
	Ingestion:	Do not induce vomiting.
		Immediately consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: Elementary aid, decontamination, symptomatic treatment.

4.3 Indication of any immediate medical attention and special treatment

No further relevant information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguish media

Suitable extinguish media: Carbon dioxide (CO_2) Extinguishing powder, foam. Fight larger fires with water spray.

Unsuitable extinguish media: Water jet – fire spread risk.

5.2 Special hazards arising from the substance or mixture

In case of fire, it can be released: Carbon Monoxide (CO), Carbon Dioxide (CO_2), Nitrogen Oxides (NO_X), Isocyanate vapours, traces of hydrogen cyanide (HCN). Do not inhale explosion and combustion gases.

5.3 Advise for firefighters

Special protective equipment: Self-contained breathing apparatus, chemical resistant protective clothing

Additional information: Do not allow contaminated firefighting water to get into ground/sewers/ground water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe fumes. Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions

Do not allow product to reach sewage system, water bodies or ground/soil.

6.3 Methods and material for containment and cleaning up

Collect with chemical binders, if necessary dry sand and store in closed containers. Ensure adequate ventilation.

6.4 Reference to other sections

Disposal: Section 13. Personal protective equipment: Section 8 Safe Handling: Section 7.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Air extraction is required for spray processing. Wash hands before breaks and at the end of work. Use skin protection ointment. Immediately remove all contaminated clothing. Avoid contact with skin or eyes.

7.2 Conditions for safe storage, including any incompatibilities

Notes on fire and explosion protection:	No special actions required.
Requirements for storage rooms and containers:	Store in a cool, well ventilated place.
Storage compatibility:	Keep away from foodstuffs, beverages and food.
Additional information:	Keep container tightly sealed and store in a cool location.
Storage class:	10

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with community workplace exposure limits:

DNEL

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:

DNEL	Oral	Inhalation	Dermal
Worker Long-term systemic Effects	4 mg/kg	28 mg/m³	4 mg /kg

27306-78-1 Polyether-modified Trisiloxane:

DNEL	Oral	Inhalation	Dermal
Worker Long-term systemic Effects	-	53,4 mg/m³	333 mg /kg
Consumer Long-term systemic Effects	0,27 mg/kg	13,3 mg/m³	167 mg/kg

PNEC

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:

PNEC Freshwater	0,00013 mg/L
PNEC Marinewater	0,000013mg/L
PNEC Freshwater sed	0,21 mg/kg (Dry weight)
PNEC Marinewater sed	0,02 mg/kg (Dry weight)
PNEC Soil	0,1 mg/kg (Dry weight)
PNEC Wastewater treatment plant	31,1 mg/L
PNEC Oral	66,67 mg/kg (Food)

27306-78-1 Polyether-modified Trisiloxane:

PNEC Freshwater	0,002 mg/L
PNEC Marinewater	0,0002mg/L
PNEC Freshwater sed	1,7 mg/kg (Dry weight)
PNEC Marinewater sed	0,17 mg/kg (Dry weight)
PNEC Soil	0,083 mg/kg (Dry weight)
PNEC Wastewater treatment plant	10 mg/L
PNEC Oral	67 mg/kg (Food)

8.2 Exposure controls

General safety and hygiene measures:

Keep away from foodstuff, beverages and food.

Immediately remove contaminated clothing.

Wash hand thoroughly before breaks and at the end of work.

Avoid contact with skin and eyes.

Respiratory protection:

In case of insufficient ventilation at workplace or spray processing respiratory protection is required.

In case of hypersensitivity to the respiratory tract and the skin (asthma, chronic bronchitis, chronic skin disorders) the handling of the product is not recommended.

Combination-filter Type A-X (Carbon filter) and Type P (Particle filter)

Hand protection:

Only use chemical protective gloves with CE labelling of Category III according to EN 374.

Selection of the glove material on consideration of the permeation times, rates of diffusion and the degradation.

Glove material:

The selection of an adequate glove not only depends on the material, but also from different other quality characteristics and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Multi-layer-glove – PE/EVAL/PE.

Penetration time of glove material:

The exact break through time is to be learned from the manufacturer and must be maintained. The break through time is dependent of the activity and usage time

Eye protection:

Tightly sealed goggles

Body protection:

Protective clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:

Physical state:	Liquid
Colour:	Yellow, milky
Odour:	Characteristic
Odour threshold:	Not determined.

Safety relevant basic data:

Parameters		**Unit**	**Remark**
Density:	1,07	g/cm³	
Bulk density:			not determined
pH value:			not determined
Melting point/Melting range:	app. -2	°C	Aspartic acid
Boiling point/Boiling range:			not determined
Flash point:	app. 100	°C	Aspartic acid
Flammability (solid/gaseous)			not applicable
Explosion dangerousness:			not explosive[1]
lower Explosion limit:			not determined
upper Explosion limit:			not determined
Ignition temperature:	375	°C	Aspartic acid
Decomposition temperature:	234	°C	Aspartic acid
Oxidising potential:			not determined
Vapour pressure:			not determined
Rate of vaporization:			not determined
Water solubility:			not miscible
Liposolubilty:			not determined
Soluble in:			not determined
Distribution coefficient:			not determined
n-Octanol/Water:			not determined
Viscosity:	app. 350	mPas	dynamic [2]
Solvent separation test:			not determined

Solvent content: not determined

[1] Formation of explosive vapor / air mixtures is possible

[2] DIN 53019 20°C

9.2 Other information

No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

No further relevant information available.

10.3 Possible hazardous reactions

No hazardous reactions when stored and handled correctly.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity:

Relevant LD/LC50 Values:

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:	Oral Dermal Inhalation	LD50 (Rat) > 2000 mg/kg (OECD 423) LD50 (Rat) > 2000 mg/kg LC50 (Rat) > 4,224 mg/L / 4h (OECD 403)
152637-10-0 Aspartic Ester:	Oral Dermal Inhalation	LD50 (Rat) > 2000 mg/kg (OECD 423) LD50 (Rat) > 2000 mg/kg LC50 (Rat) > 4,224 mg/L / 4h (OECD 403)

Irritation to the skin: May cause an allergic skin reaction.

Serious eye damage/irritation: No irritant effect.

Respiratory or skin sensitisation: Sensitisation possible through skin contact.

Aspiration hazard: Based on available data the classification criteria are not met.

CMR effects:

- Carcinogenicity: Based on available data the classification criteria are not met.
- Germ cell mutagenicity: Based on available data the classification criteria are not met.
- Reproductive toxicity: Based on available data the classification criteria are not met.

Other information:

Specific Target Organ Toxicity:

- Single exposure: Based on available data the classification criteria are not met.
- Repeated exposure: Based on available data the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic Toxicity:

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:	LC50 (Danio rerio): 66 mg/L / 96 h (OECD 203) EC50 (Daphnia magna): 88,6 mg/L / 48 h (67/548/EWG; V, C.2.) ErC50 (Scenedemus subspicatus): 113 mg/L / 72 h (67/548/EWG; V, C.3.) EC50 (Activated sludge): 3110 mg/L / 3 h (EG-RL 88/302/EEC)
152637-10-0 Aspartic Ester:	LC50 (Danio rerio): 66 mg/L / 96 h (OECD 203) EC50 (Daphnia magna): >100 mg/L / 48 h (OECD 202) ErC50 (Scenedemus subspicatus): >100 mg/L / 72 h (OECD 201) EC50 (Activated sludge): >1000 mg/L / 3 h (OECD 209)

12.2 Persistence and degradability

Biodegradability:

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:	OECD 301 F	Biodegradation: 13%, 23d; Not easily degradable
	OECD 302 C	Biodegradation: 0%, 23d; Not potentially degradable
152637-10-0 Aspartic Ester:	OECD 301 D	Biodegradation: 23%, 23d; Not easily degradable
	OECD 302 C	Biodegradation: 0%, 23d; Not potentially degradable

Stability in water:

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:	OECD 111	Half-life time: 655 h at 25 °C (pH 4) Half-life time: 25,4 h at 25 °C (pH 7) Half-life time: 16,8 h at 25 °C (pH 9)
152637-10-0 Aspartic Ester:	OECD 111	Half-life time: 655 h at 25 °C (pH 4) Half-life time: 25,4 h at 25 °C (pH 7) Half-life time: 16,8 h at 25 °C (pH 9)

Volatility (Henry's law constant):

136210-30-5 Aspartic Acid, N,N'-(methylendi-4,1-cyclohexandiyl)bis-1,1',4,4'-tetraethyl ester:	Calculated value = 0.01 Pa * m³ / mol
152637-10-0 Aspartic Ester:	Calculated value = 0.01 Pa * m³ / mol

The product is classified as biologically not readily degradable, with low degradability potential. It is classified as non-volatile from water.

12.3 Bioaccumulative potential

Enrichment in water organisms is not to be expected.

12.4 Mobility in Soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

The PBT/vPvB criteria of REACH are not applicable for this substance.

12.6 Other adverse effects

Ecotoxic effects: The product is classified as low water hazard.

General information: Do not allow product to reach ground water, sewers or into the sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods for the product:

Dispose according to national regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue:

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 02 00	Wastes from MFSU of other coatings (including ceramic materials)
08 02 99	Wastes NOS

Disposal methods for used packing:

Perform recycling in accordance with applicable regulations.

Only fully emptied packaging is recyclable.

SECTION 14: TRANSPORT INFORMATION

14.1 UN-Number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

No hazardous material. Protect from moisture. Keep away from food, beverages, acids and alkalis

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

Not applicable.

SECTION 15: REGULATORY INFROMATION

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

Directive 2012/18/EU

REACH Regulation 1907/2006/EC

Regulation (EU) 2015/830

Regulation (EU) 453/2010

National regulations:

Other regulations, limitations and prohibitive regulations

Water hazardous class:

1 (self-classification) slightly water endangering

Substances of very high concern (SVHC) according to REACH, Article 57:

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: OTHER INFORMATION

Additional details:

Classification was made based on the data on the content of hazardous substances using the calculation method based on the guidelines of regulation 1272/2008/EC (CLP).

Relevant Phrases:

H302	Harmful if swallowed
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled
H411	Toxic to aquatic life with long-lasting effects.
H412	Harmful to aquatic life with long-lasting effects.

Safety Data Sheet issuing person:	Pascal Konrad
Safety Data Sheet issued on:	10.11.2016