... eine starke Verbindung

DECLARATION OF PERFORMANCE
DoP No. MKT-530 - en

1. Unique identification code of the product-type: **MKT Injection System VME**

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):
ETA-07/0299, Annex 1 and 5
Batch number: see packaging of the product.

3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:

generic type	post-installed rebar connection
for use in	cracked and non-cracked concrete C12/15 - C50/60 (EN 206)
option	EN 1992-1-1
loading	static or quasi-static
material	reinforcing bar (B500 B): covered sizes: Ø8, Ø10, Ø12, Ø14, Ø16, Ø20, Ø24, Ø25, Ø26, Ø28 stainless steel (marking A4): internal and external use without particular aggressive conditions covered sizes: ZA M12, ZA M16, ZA M20 highly corrosion resistant steel (marking HCR): internal and external use with particular aggressive conditions covered sizes: ZA M12, ZA M16, ZA M20
temperature range (if applicable)	-40 °C to +80 °C

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):

MKT Metall-Kunststoff-Technik GmbH & Co. KG
Auf dem Immel 2
D - 67685 Weilerbach

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2): --

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V: **System 1**

7. In case of the declaration of performance concerning a construction product covered by a harmonised standard: --

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

   Deutsches Institut für Bautechnik, Berlin

   issued

   ETA-07/0299

   on the basis of

   ETAG 001-5, TR 023

   The notified body 0756-CPD performed under system 1:

   (i) determination of the product type on the basis of type testing (including sampling), type calculation, tabulated values or descriptive documentation of the product;

   (ii) initial inspection of the manufacturing plant and of factory production control;

   (iii) continuous surveillance, assessment and evaluation of factory production control.

   and issued: certificate of conformity 0756-CPD-0205

9. Declared performance:

Essential Characteristics	**Design Method**	**Performance**	**Harmonized Technical Specification**
Design values of bond stress	EN 1992-1-1	ETA-07/0299, Annex 7	ETAG 001

   Where pursuant to Article 37 or 38 in the Specific Technical Documentation has been used, the requirements with which the product complies: --

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

    This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

    Signed for and on behalf of the manufacturer by:

Lore Weustenhagen
(General Manager)
Weilerbach, 30.06.2013

i.V.

Dipl.-Ing. Detlef Bigalke
(Head of product development)

Annex: Safety Data Sheet

Safety Data Sheet according to (EC) No 1907/2006 - ISO 11014-1

MKT injection adhesive VME

SDS no. : 340153
V001.0
Revision: 30.01.2009
printing date: 10.02.2009

1. Identification of the substance/preparation and of the company/undertaking

Trade name:
MKT injection adhesive VME, Comp. A

Intended use:
MKT injection system VME

Company name:
MKT Metall-Kunststoff-Technik GmbH & Co. KG
Auf dem Immel 2
D-67685 Weilerbach
Phone: +49 (0) 6374/9116-0
E-Mail: Responsible for the safety data sheet: mkt@mkt-duebel.de

Emergency information:
Advisory office in case of poisoning: +49 (0) 89/19240 (Munich)

2. Hazards identification

The product is classified as hazardous within the meaning of the valid (EU) preparation directive.
Xi - Irritant
N - Dangerous for the environment
R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persons suffering from allergic reactions to epoxides should avoid contact with the product.

3. Composition / information on ingredients

General chemical description:
Resin

Base substances of preparation:
Inorganic fillers
Epoxy resin

Declaration of ingredients according to (EC) No 1907/2006:

Hazardous components CAS-No.	EINECS	content	Classification
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6		>= 25 - < 50 %	Xi - Irritant; R36/38 R43 N - Dangerous for the environment; R51, R53
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5		>= 10 - < 20 %	Xi - Irritant; R36/38 Xi - Irritant; R43 N - Dangerous for the environment; R51/53
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	219-371-7	>= 10 - < 20 %	Xn - Harmful; R20/21 Xi - Irritant; R36/38 R43

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

4. First aid measures

General information:
In case of adverse health effects seek medical advice.
Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation:
Move to fresh air.

Skin contact:
Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:
Rinse immediately with plenty of running water, seek medical advice from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

5. Fire fighting measures

Suitable extinguishing media:
carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

Special protection equipment for firefighters:
Wear self-contained breathing apparatus.
Wear protective equipment.

Hazardous combustion products:
Carbon dioxide., carbon monoxide

Additional information:
Dispose of combustion residues and contaminated fire-fighting water in accordance with statutory regulations.

6. Accidental release measures

Personal precautions:
Avoid contact with skin and eyes.
Keep away from sources of ignition.
Ensure adequate ventilation.
Danger of slipping on spilled product.
Do not breathe solvent vapors.
Keep unprotected persons away.

Environmental precautions:
Do not empty into drains / surface water / ground water.

Clean-up methods:
Remove mechanically.
Dispose of contaminated material as waste according to item 13.

7. Handling and storage

Handling:

Avoid skin and eye contact.
Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.

Storage:

Store in sealed original container protected against moisture.
Store in a cool, dry place.
Storage at 5 to 25°C is recommended.
Keep container in a well ventilated place.
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

8. Exposure controls / personal protection

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Hand protection:

For shorttime contact (e.g. as protection against splashes) protective gloves made from butyl rubber are recommended according to EN 374.
material thickness > 0.7 mm
Perforation time > 60 minutes
In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:

Goggles which can be tightly sealed.

Skin protection:

suitable protective clothing

General protection and hygiene measures:

Wash off any dirt that gets onto the skin with lots of soap and water, skin care.
Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.

9. Physical and chemical properties

General characteristics:

Appearance	Paste pasty light beige
Odor:	Characteristic

Phys./chem. properties:

Density (23 °C (73.4 °F))	1,55 g/cm3
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble

10. Stability and reactivity

Conditions to avoid:
No decomposition if used according to specifications.

Materials to avoid:
Reacts with strong oxidants.
Reaction with amines
Reaction with alcohols
Reaction with strong bases
Reaction with strong acids.

Hazardous decomposition products:
None if used for intended purpose.

11. Toxicological information

General toxicological information:
Persons suffering from allergic reactions to epoxides should avoid contact with the product.

Skin irritation:
Primary skin irritation: irritating

Eye irritation:
Primary eye irritation: irritating

Sensitizing:
May cause sensitization by skin contact.

12. Ecological information

Persistence and degradability:
Ultimate biodegradation:
The total of the organic components contained in the product achieve values below 60% BOD/COD or CO2 liberation, or below 70% DOC reduction in tests for ease of degradability. Threshold values for 'readily degradable' (e.g. to OECD method 301) are not reached.

General ecological information:
Do not empty into drains, soil or bodies of water.

13. Disposal considerations

Product disposal:
Dispose of waste and residues in accordance with local authority requirements.
After curing with component B :
Can be added to household waste in small quantities.
The valid EEC waste code numbers are not product-related but are largely source-related. The manufacturer is therefore unable to specify EEC waste codes for the articles or products used in the various sectors. These can be requested from the manufacturer.

Disposal of uncleaned packages:
Use packages for recycling only when totally empty.

14. Transport information

Road transport ADR:

Class:	9
Packaging group:	III
Classification code:	M7
Hazard ident. number:	90
UN no.:	3077
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol-A Epichlorhydrine resin,Bisphenol-F Epichlorhydrine resin)

Railroad transport RID:

Class:	9
Packaging group:	III
Classification code:	M7
Hazard ident. number:	90
UN no.:	3077
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol-A Epichlorhydrine resin,Bisphenol-F Epichlorhydrine resin)

Inland water transport ADN:

Class:	9
Packaging group:	III
Classification code:	M7
Hazard ident. number:	
UN no.:	3077
Label:	9
Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol-A Epichlorhydrine resin,Bisphenol-F Epichlorhydrine resin)

Marine transport IMDG:

Class:	9
Packaging group:	III
UN no.:	3077
Label:	9
EmS:	F-A ,S-F
Seawater pollutant:	Marine pollutant
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol-A Epichlorhydrine resin,Bisphenol-F Epichlorhydrine resin)

Air transport IATA:

Class:	9
Packaging group:	III
Packaging instructions (passenger)	911
Packaging instructions (cargo)	911
UN no.:	3077
Label:	9
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s. (Bisphenol-A Epichlorhydrine resin,Bisphenol-F Epichlorhydrine resin)

15. Regulations - classification and identification

Indication of danger:

Xi - Irritant

N - Dangerous for the environment

Contains

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700),
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700),
1,4-Bis(2,3-epoxypropoxy)butane

Risk phrases:

R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S51 Use only in well-ventilated areas.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

Contains epoxy constituents. See information supplied by the manufacturer.

16. Other information

The labelling of the product is indicated in Section 15. The full text of the R-phrases indicted by codes in this safety data sheet are as follows:

R20/21 Harmful by inhalation and in contact with skin.
R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R51 Toxic to aquatic organisms.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 May cause long-term adverse effects in the aquatic environment.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
The product is intended for industrial use.

Safety Data Sheet according to (EC) No 1907/2006 - ISO 11014-1

MKT injection adhesive VME

SDS no. : 340153
V001.0
Revision: 30.01.2009
printing date: 10.02.2009

1. Identification of the substance/preparation and of the company/undertaking

Trade name:
MKT injection adhesive VME, Comp. B

Intended use:
MKT injection system VME

Company name:
MKT Metall-Kunststoff-Technik GmbH & Co. KG
Auf dem Immel 2
D-67685 Weilerbach
Phone: +49 (0) 6374/9116-0
E-Mail: Responsible for the safety data sheet: mkt@mkt-duebel.de

Emergency information:
Advisory office in case of poisoning: +49 (0) 89/19240 (Munich)

2. Hazards identification

The product is classified as hazardous within the meaning of the valid (EU) preparation directive.
C - Corrosive
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R43 May cause sensitization by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.
Persons suffering from allergic reactions to amines should avoid contact with the product.

3. Composition / information on ingredients

General chemical description:
Hardener
Base substances of preparation:
Inorganic fillers

Declaration of ingredients according to (EC) No 1907/2006:

Hazardous components CAS-No.	EINECS	content	Classification
3-Aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	220-666-8	> 10 - < 25 %	Xn - Harmful; R21/22 C - Corrosive; R34 R43 R52, R53
Benzyl alcohol 100-51-6	202-859-9	> 1 - < 10 %	Xn - Harmful; R20/22
2,2'-Iminodi(ethylamine) 111-40-0	203-865-4	> 1 - < 10 %	C - Corrosive; R34 Xn - Harmful; R21/22 R43
2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2	202-013-9	> 1 - < 10 %	Xn - Harmful; R22 Xi - Irritant; R36/38
m-Phenylenebis(methylamine) 1477-55-0	216-032-5	> 1 - < 5 %	C - Corrosive; R34 Xn - Harmful; R20/22 Xi - Irritant; R43 R52/53
Phenol 108-95-2	203-632-7	> 1 - < 5 %	Mutagen category 3.; R68 T - Toxic; R23/24/25 Xn - Harmful; R48/20/21/22 C - Corrosive; R34

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

4. First aid measures

General information:
In case of adverse health effects seek medical advice.
Remove casualty immediately from danger zone. Take off immediately all contaminated clothing.

Inhalation:
Move to fresh air, consult doctor if complaint persists.
If unconscious keep patient in stable recovery position (lying on one side) for transport.
Delayed effects possible after inhalation.

Skin contact:
Immediately rinse with copious amounts of running water (for 10 minutes). Remove contaminated clothes. Put on a bandage with sterile gauze, seek medical attention in hospital.

Eye contact:
Rinse immediately with plenty of running water, seek medical advice from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

5. Fire fighting measures

Suitable extinguishing media:
carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

Special protection equipment for firefighters:
Wear self-contained breathing apparatus.
Wear protective equipment.

Hazardous combustion products:
Carbon dioxide., carbon monoxide, nitrogen oxides

Additional information:
In case of fire, keep containers cool with water spray.

6. Accidental release measures

Personal precautions:
Avoid contact with skin and eyes.
Ensure adequate ventilation.
Do not breathe solvent vapors.
Keep unprotected persons away.

Environmental precautions:
Do not empty into drains / surface water / ground water.

Clean-up methods:
Remove with liquid-absorbing material.
Dispose of contaminated material as waste according to item 13.

7. Handling and storage

Handling:
Avoid skin and eye contact.
Ensure that workrooms are adequately ventilated.

Storage:
Store in sealed original container protected against moisture.
Store in a cool, dry place.
Storage at 5 to 25°C is recommended.
Keep container in a well ventilated place.
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

8. Exposure controls / personal protection

Components with specific control parameters for workplace:
Valid for
Great Britain
Basis
UK EH40 WELs

Ingredient	ppm	mg/m³	Type	Category	Remarks
PHENOL 108-95-2				Listed.	EH40 WEL
PHENOL 108-95-2				Listed.	EU-2000/39/EC
PHENOL 108-95-2	2	7,8	Time Weighted Average (TWA).		EU-2000/39/EC
PHENOL 108-95-2			Skin designation:	Can be absorbed through the skin.	EU-2000/39/EC
PHENOL 108-95-2	2		Time Weighted Average (TWA).		EH40 WEL
PHENOL 108-95-2			Skin designation:	Can be absorbed through the skin.	EH40 WEL
2,2'-IMINODI(ETHYLAMINE) 111-40-0			Skin designation:	Can be absorbed through the skin.	EH40 WEL
2,2'-IMINODI(ETHYLAMINE) 111-40-0	1	4,3	Time Weighted Average (TWA).		EH40 WEL

Engineering controls:
No further information, see section 7.

Respiratory protection:
Suitable breathing mask when there is inadequate ventilation.

Hand protection:
For shorttime contact (e.g. as protection against splashes) protective gloves made from butyl rubber are recommended according to EN 374.
material thickness > 0.7 mm
Perforation time > 60 minutes
In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Eye protection:
Goggles which can be tightly sealed.

Skin protection:
suitable protective clothing

General protection and hygiene measures:
Wash off any dirt that gets onto the skin with lots of soap and water, skin care.
Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
When using the product avoid alcohol consumption.

9. Physical and chemical properties

General characteristics:

Appearance	Paste pasty Black
Odor:	Amine-like

Phys./chem. properties:

Density (20 °C (68 °F))	1,09 g/cm3
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Partially miscible
Explosion limit	
lower [vol%]	1,0 %(V)
upper [vol%]	13 %(V)

10. Stability and reactivity

Conditions to avoid:
No decomposition if used according to specifications.

Materials to avoid:
Reacts with strong oxidants.
Reaction with strong acids.

Hazardous decomposition products:
None known

11. Toxicological information

General toxicological information:
Danger of serious damage to health by prolonged exposure.
Persons suffering from allergic reactions to amines should avoid contact with the product.

Oral toxicity:
Harmful if swallowed.

Inhalative toxicity:
Harmful by inhalation.

Dermal toxicity:
Harmful in contact with skin.

Skin irritation:
Primary skin irritation: corrosive

Eye irritation:
Primary eye irritation: corrosive

Sensitizing:
May cause sensitization by skin contact.
Cross-reactions with other amine compounds are possible.

12. Ecological information

Persistence and degradability:
Ultimate biodegradation:
The total of the organic components contained in the product achieve values below 60% BOD/COD or CO2 liberation, or below 70% DOC reduction in tests for ease of degradability. Threshold values for 'readily degradable' (e.g. to OECD method 301) are not reached.

General ecological information:
Do not empty into drains, soil or bodies of water.

13. Disposal considerations

Product disposal:
Dispose of waste and residues in accordance with local authority requirements.
After curing with component A :
Can be added to household waste in small quantities.
The valid EEC waste code numbers are not product-related but are largely source-related. The manufacturer is therefore unable to specify EEC waste codes for the articles or products used in the various sectors. These can be requested from the manufacturer.

Disposal of uncleaned packages:
Only well-emptied containers with dried or cured product residues and without solvent vapors can be recycled.

14. Transport information

Road transport ADR:

Class:	8
Packaging group:	III
Classification code:	C8
Hazard ident. number:	80
UN no.:	3259
Label:	8
Technical name:	AMINES, SOLID, CORROSIVE, N.O.S. (Isophoronediamine,Diethylenetriamine)

Railroad transport RID:

Class:	8
Packaging group:	III
Classification code:	C8
Hazard ident. number:	80
UN no.:	3259
Label:	8
Technical name:	AMINES, SOLID, CORROSIVE, N.O.S. (Isophoronediamine,Diethylenetriamine)

Inland water transport ADN:

Class:	8
Packaging group:	III
Classification code:	C8
Hazard ident. number:	
UN no.:	3259
Label:	8
Technical name:	AMINES, SOLID, CORROSIVE, N.O.S. (Isophoronediamine,Diethylenetriamine)

Marine transport IMDG:

Class:	8
Packaging group:	III
UN no.:	3259
Label:	8
EmS:	F-A ,S-B
Seawater pollutant:	
Proper shipping name:	AMINES, SOLID, CORROSIVE, N.O.S. (Isophoronediamine,Diethylenetriamine)

Air transport IATA:

Class:	8
Packaging group:	III
Packaging instructions (passenger)	822
Packaging instructions (cargo)	823
UN no.:	3259
Label:	8
Proper shipping name:	Amines, solid, corrosive, n.o.s. (Isophoronediamine,Diethylenetriamine)

15. Regulations - classification and identification

Indication of danger:

C - Corrosive

Contains

3-Aminomethyl-3,5,5-trimethylcyclohexylamine,
m-Phenylenebis(methylamine),
2,2'-Iminodi(ethylamine),
Phenol

Risk phrases:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R43 May cause sensitization by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.

Safety phrases:

S23 Do not breathe vapour.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S51 Use only in well-ventilated areas.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

16. Other information

The labelling of the product is indicated in Section 15. The full text of the R-phrases indicted by codes in this safety data sheet are as follows:

R20/22 Harmful by inhalation and if swallowed.
R21/22 Harmful in contact with skin and if swallowed.
R22 Harmful if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R52 Harmful to aquatic organisms.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 May cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
The product is intended for industrial use.