

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING

Product name: MM-metal SS-steelceramic, pasty (Prod-# 200)
 MM-metal SS-steel 382, pasty (Prod-# 217)
 MM-metal SS-steel 382, liquid (Prod-# 218)
 MM-metal SS-steel, pasty (Prod-# 201)
 MM-metal SS-steel, liquid (Prod-# 202)
 MM-metal SS-aluminium, pasty (Prod-# 205)
 MM-metal SS-aluminium, liquid (Prod-# 206)
 MM-metal SS-copper, pasty (Prod-# 209)
 MM-metal SS-copper, liquid (Prod-# 210)
 MM-metal SS-bronze, pasty (Prod-# 211)
 MM-metal SS-bronze, liquid (Prod-# 212)
 MM-metal oL-steelceramic, pasty (Prod-# 2460, 246)

Purpose: Repair material

Manufacturer / Supplier: MultiMetall Reiner Schulze e.K.
 Spenglerstraße 3
 D-41749 Viersen
 Phone: +49 (0) 2162/97009-0
 Fax: +49 (0) 2162/97009-11
 Email: info@polymermetal.com

Responsibility Safety data sheet: Email: msds@polymermetal.com

Emergency contact number: Phone: +49 (0) 2162/97009-0

2. HAZARDS IDENTIFICATION

Information: The product has to be labelled due to the calculation procedure of the „General Classification guideline for preparations of the EU“.



Hazard description: Xi Irritant

N Dangerous for the environment

Information concerning particular hazards for human and environment:

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

Contains epoxy constituents. See information supplied by the manufacturer.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: Modified epoxy resin

Dangerous ingredients

Ingredient name:	Bisphenol-A-epichlorhydrin epoxy resin, molecular weight ≤ 700 Xi, N; R 36/38, 43, 51/53
CAS-number:	25068-38-6
EINECS:	500-033-5
Concentration:	10 – 28 %

Ingredient name:	Bisphenol-F-epichlorhydrin epoxy resin, molecular weight ≤ 700
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	Xi, N; R 36/38, 43, 51/53
CAS-number:	9003-36-5
EINECS:	500-006-8
Concentration:	4 – 10 %

Ingredient name:	1,6-bis(2,3-epoxypropoxy)hexane Xi; R 36/38, 43, 52/53
CAS-number:	16096-31-4
EINECS:	240-260-4
Concentration:	2 – 5 %

Additional information: For the wording of the listed risk phrases refer to chapter 16.

4. FIRST AID MEASURES

Inhalation: Plenty of fresh air and call on doctor as a precaution.

Skin contact: Instantly wash with water and soap and rinse thoroughly. Seek medical treatment after continuous skin irritation.

Eye contact: Flush open eye under running water for several minutes. Seek medical treatment immediately.

Ingestion: Rinse out mouth and then drink plenty of water. Instantly call for medical help. Do not induce vomiting.

5. FIREFIGHTING MEASURES

Suitable extinguishing agents: CO₂, extinguishing powder or water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

Special exposure hazards: Can be released in case of fire:
Carbon monoxide (CO)
Under certain fire conditions, traces of toxic substances cannot be excluded.

Special protective equipment: Wear full protective suit. Wear self-contained breathing apparatus.

Additional information: Collect contaminated fire fighting water separately. It must not enter drains. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Do not allow to enter drainage system, surface or ground water.
Do not allow to enter the ground/soil.

Measures for cleaning: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.

7. HANDLING AND STORAGE

Handling:

Information for safe handling: Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

No special measures required.

Storage:

Requirements for storage areas and containers:

Prevent any penetration into the ground. Store in cool, dry conditions in well sealed containers.

Clustering information:

Not required.

Storage class:

10 (flammable liquids; VCI-Concept)

Classification according to Plant safety regulations (BetrSichV):

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredients with limit values that require monitoring at the workplace:

No exposure limit value known.

Hygienic measures:

Take off immediately all contaminated clothing. Wash hands during breaks and at the end of work. Avoid contact with eyes and skin. Do not inhale gases / fumes / aerosols.

Breathing protection:

Not necessary if room is well-ventilated.

Hands protection:

Plastic gloves (EN 374)
Material of gloves: Butyl rubber, nitrile rubber
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed safety glasses (EN 166)

Body protection:

Protective work clothing (EN 340)

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:

pasty

Colour:

grey

Odour:

weak

Change in condition

Boiling point/boiling range:

> 200 °C

Flash point:

> 150 °C (ISO 2719)

Vapour pressure at 20°C:

< 1 hPa

Density at 20 °C:

2,6 g/cm³ (Prod-# 200, 2460, 246)

2,85 g/cm³ (Prod-# 217, 201)

1,8 g/cm³ (Prod-# 205)

3 g/cm³ (Prod-# 209, 211)

Solubility in / Miscibility with water:

not or slightly soluble

Viscosity:

pasty

10. STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Dangerous reactions: Partly very strong reaction with bases as well as numerous organic substances like alcohols and amines.

Dangerous products of decomposition: Irritating gases / vapours

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Classifying relevant LD/LC50 values:	25068-38-6 Bisphenol-A-epichlorhydrin epoxy resin, molecular weight \leq 700
Oral:	LD50 (rat) 11400 mg/kg
Dermal:	LD50 (rabbit) > 2000 mg/kg
Inhalative:	

Classifying relevant LD/LC50 values:	9003-36-5 Bisphenol-F-epichlorhydrin epoxy resin, molecular weight \leq 700
Oral:	LD50 (rat) 23800 mg/kg
Dermal:	LD50 (rabbit) > 2000 mg/kg
Inhalative:	

Classifying relevant LD/LC50 values:	16096-31-4 1,6-Bis(2,3-epoxypropoxy)hexane
Oral:	LD50 (rat) 2900 - 8500 mg/kg
Dermal:	LD50 (rat) > 2000 mg/kg
Inhalative:	

Primary irritant effect:
 on the skin: Irritates the skin and the mucous membranes.
 on the eye: Irritant effect.

Sensitisation: Sensitisation possible by skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicological effects:

Acquatic toxicity:	Bisphenol-A-epichlorhydrin epoxy resin, molecular weight \leq 700
LC50/96h	1,5 – 7,7 mg/l (rainbow trout)
EC50/24h	1,1 – 3,6 mg/l (daphnia)
EC50/96h	220 mg/l (algae)

General information: Do not allow product to reach underground or surface water or sewage system.

13. DISPOSAL CONSIDERATIONS

Product:

Recommendation: Remove according to local authority recommendations, e.g. convey to a suitable incinerator.

European waste catalogue: The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

Land transport
(ADR/RID/GGVSE): Proper shipping name: not restricted according to ADR
Class:
Classification code:
Hazard label:
Danger Code (Kemler No.):
UN Number.:
Packaging group:
Special regulations:


Maritime transport
(IMDG-Code/GGVSee): Proper shipping name: not restricted according to IMDG
Class:
UN Number.:
Packaging group:
EmS:
Marine Pollutant:
Special regulations:

Air transport
(ICAO-IATA/DGR): Proper shipping name: not restricted according to IATA
Class:
UN Number.:
Packaging group:
Special regulations:

15. REGULATORY INFORMATION

Labelling according to EU guidelines: According to EU guidelines, hazardous labelling of the product is required.

Code letter and hazard designation
of product:  Xi Irritant

 N Dangerous for the environment

Hazard-determining components
of labelling: Bisphenol-A-epichlorhydrin epoxy resin, molecular weight ≤ 700
Bisphenol-F-epichlorhydrin epoxy resin, molecular weight ≤ 700
1,6-Bis(2,3-epoxypropoxy)hexane

Risk phrases:
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
24 Avoid contact with skin.
28 After contact with skin, wash immediately with plenty of water and soap.
37/39 Wear suitable gloves and eye/face protection.
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/safety data sheet.

Special labelling of certain
preparations: Contains epoxy constituents. See information supplied by the manufacturer.

National regulations:

Plant safety regulations: -
Technical instructions (air): -
Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water

16. OTHER INFORMATION

Relevant R-phrases:

These R-phrases refer to section 3: "Dangerous Components"

36/38	Irritating to eyes and skin.
43	May cause sensitisation by skin contact.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
52/53	Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Product use: Industrial applications

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.