

**MM-metal SS-steelceramic • MM-metal SS-steel 382 • MM-metal SS-steel  
MM-metal SS-aluminium • MM-metal SS-brass • MM-metal SS-copper  
MM-metal SS-bronze • MM-metal oL-steelceramic**

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

Product information

Commercial product name: MM-metal SS-steelceramic (Prod-# 200)  
MM-metal SS-steel 382(Prod-# 217, 218)  
MM-metal SS-steel (Prod-# 201, 202)  
MM-metal SS-aluminium (Prod-# 205, 206)  
MM-metal SS-brass (Prod-# 207, 208)  
MM-metal SS-copper (Prod-# 209, 210)  
MM-metal SS-bronze (Prod-# 211, 212)  
MM-metal oL-steelceramic (Prod-# 2460, 246)

Company: MultiMetall  
Spenglerstraße 3  
D-41749 Viersen  
Telephone: +49 (0) 2162/97009-0  
Telefax: +49 (0) 2162/97009-11  
Emergency telephone number: +49 (0) 2162/97009-0

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature: modified epoxide resin on basis Bisphenol-A-Epichlorhydrinresin  
Components: Bisphenol-A-Epichlorhydrinresin and various metal powders + Al<sub>2</sub>O<sub>3</sub> + SiC  
CAS-Number: MG 25068-38  
Symbol(s): Xi, N  
R-phrase(s): 36/38-43  
concentration: > 85%

**3. HAZARDS IDENTIFICATION**

36/38 Irritating to eyes and skin  
43 May cause sensitization by inhalation

**4. FIRST AID MEASURES**

General advice: Move out of dangerous area. Victim to lie down in the recovery position, cover and keep him warm. Take off all contaminated clothing immediately. Wash with water and soap as precaution.  
Eye contact: Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.  
Skin contact: If you have skin contact, you must wash off with much water and soap and afterwards you take a cream for your skin.  
Inhalation: Move to fresh air. Victim to lie down in the recovery position, cover and keep him warm. Consult a physician after significant exposure.  
Ingestion: Prevent vomiting if possible. Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.

**5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media: water spray, foam, CO<sub>2</sub>, extinguishing powder  
Extinguishing media which must not be used  
for safety reasons: High volume water jet  
Protective equipment: Wear personal protective equipment.  
Additional information: Keep unprotected persons away. Extinguishing water is to be disposed in accordance with local authority regulations.

## **6. ACCIDENTAL RELEASE MEASURES**

Personal precautions:	Keep unprotected people away. Use personal protective equipment. Avoid contact with skin, eyes and clothing.
Environmental precautions:	Do not allow to reach sewage system or water bodies. Do not allow to enter the ground/soil.
Methods for cleaning up:	Soak up with inert absorbent material e.g. sand, silica gel, acid binder, universal binder, sawdust

## **7. HANDLING AND STORAGE**

Safe handling advice:	No special precautions necessary if used correctly
Advice on protection against fire and explosion:	No special precautions necessary if used correctly
Requirements for storage areas and containers:	No special precautions necessary if used correctly

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information on the lay-out of technical plant:	No special precautions necessary if used correctly
---	--

### Components with workplace control parameters

Components:	Bisphenol-A-Epichlorhydrinresin and various metal powders
CAS-Number:	MG 25068-38
Value:	< 700
Release notes:	
Basis:	

### Personal protection equipment

Hand protection:	solvent-resistant gloves
Eye protection:	safety glasses
Skin and body protection:	long sleeved clothing
Hygiene measures:	General industrial hygiene practice. Wash hands before breaks and the end of workday. Avoid contact with skin and eyes.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### Appearance

Appearance:	pasty (Prod-# 200, 217, 201, 205, 207, 209, 211, 2460, 246) liquid (Prod-# 218, 202, 206, 208, 210, 212)
Form:	
Colour:	
Odour:	almost odourless

### Other data

Boiling point/range:	< 200°C
Flash point:	> 200°C (DIN 53213)
Ignition temperature:	approx. 460°C
Upper explosion limit:	
Lower explosion limit:	
Vapour pressure:	at 20°C < 0,0001 hPa
Density:	2,6 g/cm <sup>3</sup> (Prod-# 200, 2460, 246) 3,3 g/cm <sup>3</sup> (Prod-# 215) 2,85 g/cm <sup>3</sup> (Prod-# 201, 202) 1,8 g/cm <sup>3</sup> (Prod-# 205, 206) 3 g/cm <sup>3</sup> (Prod-# 207, 208, 209, 210, 211, 212)
Water solubility:	< 0,1 g/l
Viscosity, dynamic:	25°C 35000 - 400000

## **10. STABILITY AND REACTIVITY**

Thermal decomposition:	No decomposition if stored and applied as directed.
Hazardous reactions:	No decomposition if stored and applied as directed. Exothermic reaction with ami-

Hazardous decomposition products:

nes and strong acids.

No decomposition if stored and applied as directed.

### **11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity: LD50 rat 11400 mg/kg  
Acute dermal toxicity: LD50 rat > 2000 mg/kg  
Skin irritation: Repeated or prolonged exposure may cause irritation to skin and mucous membranes  
Eye irritation: Irritant effect  
Sensitization: Sensitisation possible by skin contact

### **12. ECOLOGICAL INFORMATION**

Elimination information (persistence and degradability)

Biodegradability:

Physico-chemical removability: Most parts can be separated mechanically in a sewage plant.

Additional information: Do not allow to reach sewage system or water bodies. Do not allow to enter the ground/soil.

### **13. DISPOSAL CONSIDERATIONS**

Products: Remove according to local authority recommendations.  
Package not cleaned: Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

### **14. TRANSPORT INFORMATION**

Land transport: Not restricted article

Sea transport: Not restricted article

Air transport: Not restricted article

### **15. REGULATORY INFORMATION**

Labelling according to EEC Directive

Hazard-determining

components of labelling: Bisphenol-A-Epichlorhydrinresin and various metal powders

Symbol(s): Xi Irritant

N Environment

R-phrases: R 36/38 Irritation to eyes

R 43 May cause sensitisation by skin contact

S-phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advise

S 28 In case of contact with skin, rinse immediately with plenty of water and soap, seek medical advise

S 37/38 Wear suitable protective clothing, gloves and eye/face protection

### **16. OTHER INFORMATION**

These information are based on the present state of our knowledge and do therefore not guarantee certain properties. However, it shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.