



MEREKO

# Material Safety Data Sheet

acc. to OSHA HCS

Page 1/10

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

## 1 Identification of the substance/mixture and of the company/undertaking

### · Product identifier

- **Trade name:** **Metagel 166FRN Base Black**
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the preparation** Epoxy resin

### · Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:** Mereco Division  
Metachem Resins Corporation  
1505 Main Street  
West Warwick, RI 02893  
USA Phone +1 / 401 / 822-9300
- **Information department:** Technical department.  
email = [info@mereco.com](mailto:info@mereco.com)
- **Emergency telephone number:** Telephone: (401) 822-9300

## \* 2 Hazards identification

### · Classification of the substance or mixture

#### · Classification according to Directive 67/548/EEC or Directive 1999/45/EC

- Xn; Harmful
- R40: Limited evidence of a carcinogenic effect.
- Xi; Irritant
- R36/38-43: Irritating to eyes and skin. May cause sensitisation by skin contact.
- R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### · Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of international guidelines.

- **Classification system:** The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

### · Label elements

#### · Labelling according to EU guidelines:

The product has been classified and marked in accordance with directives on hazardous materials.

(Contd. on page 2)

— USA —

**Material Safety Data Sheet**

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

**Trade name: Metagel 166FRN Base Black**

(Contd. from page 1)

- **Code letter and hazard designation of product:** Xn Harmful
- **Hazard-determining components of labelling:** Bisphenol A Diglycidyl Ether  
Epoxy Resin  
antimony trioxide  
Diglycidyl ether Bisphenol-A epoxy resin  
reactive diluent
- **Risk phrases:** 36/38 Irritating to eyes and skin.  
40 Limited evidence of a carcinogenic effect.  
43 May cause sensitisation by skin contact.  
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:** 24 Avoid contact with skin.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
28 After contact with skin, wash immediately with plenty of soap and water.  
37/39 Wear suitable gloves and eye/face protection.  
60 This material and its container must be disposed of as hazardous waste.
- **Special labelling of certain preparations:** Contains epoxy constituents. See information supplied by the manufacturer.
- **Classification system:**
  - **NFPA ratings (scale 0 - 4)** Health = 2  
Fire = 1  
Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)** Health = 2  
Fire = 1  
Reactivity = 0
- **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

**\* 3 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
  - **Description:** Mixture of the substances listed below with non-hazardous additions.

· <b>Components:</b>	
Diglycidyl Ether Bisphenol-A epoxy resin	Xi R36/38-43

(Contd. on page 3)

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 2)

	Flame retardant	Xi R36/37/38; N R51
	Diglycidyl Ether Bisphenol-A epoxy resin	Xi R36/38-43; N R51/53
	Organic filler	Xi R36/37/38 R66
	Reactive diluent	Xi R38-43
1309-64-4	antimony trioxide	Xn R40 Carc. Cat. 3

· **Additional information:**

For the wording of the listed risk phrases refer to section 16.

This resin is a blended mixture of liquid resins and mineral, ceramic or organic fillers. These fillers do not pose airborne hazards to the user of this formulated product because they are completely encapsulated in the resin mass. If any of the specific fillers are hazardous in accordance with Section 313 of the Emergency Planning and Community Right-to-know Act (EPCRA) they are identified in section 15 of this MSDS (SARA Section 313).

---

\* **4 First aid measures**

· **Description of first aid measures**

- **After inhalation:** Supply fresh air. For added safety, call a doctor.  
In case of unconsciousness place patient in a stable side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

---

\* **5 Firefighting measures**

- **Extinguishing media**
  - **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 4)

— USA —

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

**Trade name: Metagel 166FRN Base Black**

(Contd. from page 3)

- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## \* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.
- **Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## \* 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.  
Use only in well ventilated areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 5)

— USA —

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 4)

- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:**

The lists that were valid during the creation were used as basis.
- **Exposure controls**
  - **Personal protective equipment:**
    - **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
    - **Breathing equipment:**

Not required.
    - **Protection of hands:**

Protective gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material is based on consideration of the penetration times, rates of diffusion and the degradation of the material.
    - **Material of gloves**

The selection of suitable gloves depends not only on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
    - **Penetration time of glove material**

The exact penetration time has to be determined by the glove manufacturer and has to be observed.
  - **Eye protection:**

Tightly sealed goggles

---

**\* 9 Physical and chemical properties**

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Viscous
· <b>Color:</b>	Black
· <b>Odor:</b>	Mild
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.

(Contd. on page 6)

— USA —

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 5)

· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	201 °C
· <b>Flash point:</b>	252 °C
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	1.7 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

---

**\* 10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with amines.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

(Contd. on page 7)

— USA —

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 6)

- **Hazardous decomposition products:** Irritant gases/vapors
- 

## \* 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

<b>Brominated flame retardant</b>		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
<b>1309-64-4 antimony trioxide</b>		
Oral	LD50	>30000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
<b>1333-86-4 Carbon black</b>		
Oral	LD50	10000 mg/kg (rat)
<b>reactive diluent</b>		
Oral	LD50	19200 mg/kg (rat)
Dermal	LD50	> 4500 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:**

Irritant to skin and mucous membranes.

- **on the eye:**

Irritating effect.

- **Sensitization:**

Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

25085-99-8	Bisphenol A Diglycidyl Ether Epoxy Resin	3	40-60%
14807-96-6	Talc (Mg3H2(SiO3)4)	2B	20-40%
1309-64-4	antimony trioxide	2B	3-10%
1333-86-4	Carbon black	2B	1-3%

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

## \* 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

No further relevant information available.

(Contd. on page 8)

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 7)

- **Persistence and degradability** No further relevant information available.
  - **Behavior in environmental systems:**
    - **Bioaccumulative potential** No further relevant information available.
    - **Mobility in soil** No further relevant information available.
  - **Ecotoxicological effects:**
    - **Remark:** Harmful to fish
  - **Additional ecological information:**
    - **General notes:** Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Harmful to aquatic organisms
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **Other adverse effects** No further relevant information available.
- 

## 13 Disposal considerations

- **Waste treatment methods**
    - **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - **Uncleaned packagings:**
    - **Recommendation:** Disposal must be made according to official regulations.
- 

## \* 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	Not Applicable
· <b>UN proper shipping name</b>	
· <b>DOT</b>	Not Regulated
· <b>ADR, ADN, IMDG, IATA</b>	Not Applicable
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Not Applicable
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Not Applicable
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No

(Contd. on page 9)

— USA —



# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 8)

· <b>Special precautions for user</b>	Not applicable.
---------------------------------------	-----------------

· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
--	-----------------

---

## \* 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
 · **Sara**

· <b>Section 302 (extremely hazardous substances):</b>
--

None of the ingredients is listed.
------------------------------------

· <b>Section 313 (Specific toxic chemical listings):</b>
--

1309-64-4	antimony trioxide	3-10%
-----------	-------------------	-------

· <b>Sections 311/312 (Specific hazard chemical listings):</b>
--

25085-99-8	Bisphenol A Diglycidyl Ether Epoxy Resin
------------	---

	Brominated flame retardant
--	----------------------------

1333-86-4	Carbon black
-----------	--------------

	reactive diluent
--	------------------

· <b>Sections 311/312 Hazard Categorizations:</b>
---

25085-99-8	Bisphenol A Diglycidyl Ether Epoxy Resin	A = Acute Health Hazard	40-60%
------------	---	-------------------------	--------

	Brominated flame retardant	Category = C (Chronic Health Hazard)	10-20%
--	----------------------------	--------------------------------------	--------

1333-86-4	Carbon black	A = Acute; C = Chronic (Health Hazards)	1-3%
-----------	--------------	---	------

	reactive diluent	A = Acute, C = Chronic (health hazards)	1-3%
--	------------------	---	------

· **TSCA (Toxic Substances Control Act):**

This product contains a flame retardant that is covered by the Significant New Use Rule (SNUR) under TSCA. No regulatory reporting/record keeping is required by the user as long as the product is only being used for its flame-retardant properties.

All ingredients are listed.
-----------------------------

· **Proposition 65**

· <b>Chemicals known to cause cancer:</b>
---

1309-64-4	antimony trioxide	3-10%
-----------	-------------------	-------

1333-86-4	Carbon black	1-3%
-----------	--------------	------

· <b>Chemicals known to cause reproductive toxicity for females:</b>
--

None of the ingredients is listed.
------------------------------------

· <b>Chemicals known to cause reproductive toxicity for males:</b>
--

None of the ingredients is listed.
------------------------------------

(Contd. on page 10)

— USA —

# Material Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2013

Version 3

Reviewed on 01/21/2013

---

**Trade name: Metagel 166FRN Base Black**


---

(Contd. from page 9)

---

**· Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

---

**· Carcinogenic categories**


---

**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

---

**· TLV (Threshold Limit Value established by ACGIH)**

14807-96-6	Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	A4	20-40%
1309-64-4	antimony trioxide	A2	3-10%
1333-86-4	Carbon black	A4	1-3%

---

**· MAK (German Maximum Workplace Concentration)**

25085-99-8	Bisphenol A Diglycidyl Ether Epoxy Resin	3	40-60%
14807-96-6	Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	3B	20-40%
1309-64-4	antimony trioxide	2	3-10%
1333-86-4	Carbon black	3B	1-3%

---

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4	Carbon black	1-3%
-----------	--------------	------

---

**· OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

---

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
 

---



---

**\* 16 Other information**

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.

---

**· Relevant phrases**

R36/37/38 Irritating to eyes, respiratory system and skin.  
 R36/38 Irritating to eyes and skin.  
 R38 Irritating to skin.  
 R40 Limited evidence of a carcinogenic effect.  
 R43 May cause sensitisation by skin contact.  
 R51 Toxic to aquatic organisms.  
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R66 Repeated exposure may cause skin dryness or cracking.

---

**· Department issuing MSDS:** Technical department

**· Contact:** Dr. John F. Plummer

---

**· \* Data compared to the previous version altered.**



MERECO

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

## 1 Identification of the substance/mixture and of the company/undertaking

### · Product identifier

· Trade name: **Metagel 166FRN Activator**

· Application of the substance / the preparation  
Epoxy curing agent

### · Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Mereco Division  
Metachem Resins Corporation  
1505 Main Street  
West Warwick, RI 02893  
USA  
Phone +1 / 401 / 822-9300

· Information department: Technical department.  
email = [info@mereco.com](mailto:info@mereco.com)

· Emergency telephone number: Telephone: (800) 424-9300 (Chemtrec)  
Call this number in the event of an accident resulting in a spill, leak or fire. Call this number in the event of exposure to the chemicals.

## \* 2 Composition/information on ingredients

### · Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with non-hazardous additions.

### · Components:

	aliphatic polyamine	C R34; Xn R21/22-48/20-65
	inorganic filler	Xi R36/37
112-24-3	3,6-diazaoctanethylenediamin	C R34; Xn R21; Xi R43 R52/53

### · Additional information:

For the wording of the listed risk phrases refer to section 16.  
This material is a blend of liquid curing agents and mineral or ceramic powders. The powders do not pose airborne hazards to the user of this formulated product because they are completely encapsulated in the liquid materials. If any of the specific powdered ingredients are hazardous in accordance with Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) they are identified in Section 15 of the MSDS (SARA Section 313).

## \* 3 Hazards identification

### · Classification of the substance or mixture

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C; Corrosive  
R34: Causes burns.

(Contd. on page 2)

USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

**Trade name: Metagel 166FRN Activator**

(Contd. from page 1)

Xn; Harmful

R21/22-48/20: Harmful in contact with skin and if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.

· **Classification system:** The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Code letter and hazard designation of product:**

C Corrosive

· **Hazard-determining components of labelling:**

polyoxypropylene diamine

· **Risk phrases:**

21/22 Harmful in contact with skin and if swallowed.  
 34 Causes burns.  
 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

· **Safety phrases:**

1/2 Keep locked up and out of the reach of children.  
 13 Keep away from food, drink and animal feedingstuffs.  
 20 When using do not eat or drink.  
 25 Avoid contact with eyes.  
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.  
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
 56 Dispose of this material and its container to hazardous or special waste collection point.  
 60 This material and its container must be disposed of as hazardous waste.  
 64 If swallowed, rinse mouth with water (only if the person is conscious).

(Contd. on page 3)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

**Trade name: Metagel 166FRN Activator**

(Contd. from page 2)

- **Special labelling of certain preparations:** Contains 3,6-diazaoctanethylenediamin. May produce an allergic reaction.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**
  - Health = 3
  - Fire = 1
  - Reactivity = 0
- **HMS-ratings (scale 0 - 4)**
  - Health = \*3
  - Fire = 1
  - Reactivity = 0

## 4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation is necessary for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient in a stable side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Immediately call a doctor. Drink copious amounts of water and provide fresh air. Immediately call a doctor.

## \* 5 Firefighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

## \* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Use neutralizing agent. Dispose of contaminated material as waste according to item 13. Pick up mechanically. Ensure adequate ventilation.

(Contd. on page 4)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

---

**Trade name: Metagel 166FRN Activator**


---

(Contd. from page 3)

- **Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- 

## \* 7 Handling and storage

- **Handling:**
    - **Precautions for safe handling** Thorough dedusting.  
Store in cool, dry place in tightly closed receptacles.  
Use only in well ventilated areas.
    - **Information about protection against explosions and fires:** No special measures required.
  - **Storage:**
    - **Requirements to be met by storerooms and receptacles:** No special requirements.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** Keep receptacle tightly sealed.
    - **Specific end use(s)** No further relevant information available.
- 

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.  
The lists that were valid during the creation were used as basis.
- **Additional information:**
- **Personal protective equipment:**
  - **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
  - **Breathing equipment:** Not required.
  - **Protection of hands:** Protective gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 5)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

---

**Trade name: Metagel 166FRN Activator**


---

(Contd. from page 4)

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material is based on consideration of the penetration times, rates of diffusion and the degradation of the material.

- **Material of gloves**

The selection of suitable gloves depends not only on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact penetration time has to be determined by the glove manufacturer and has to be observed.

- **Eye protection:**

Tightly sealed goggles

---

\* **9 Physical and chemical properties**

· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Viscous
· <b>Color:</b>	Light yellow
· <b>Odor:</b>	Ammonia-like
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	260°C
· <b>Flash point:</b>	121°C
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	370°C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20°C:</b>	1 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.

(Contd. on page 6)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

---

**Trade name: Metagel 166FRN Activator**


---

(Contd. from page 5)

· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Insoluble.
· <b>Segregation coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

---

## \* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **Possibility of hazardous reactions**
    - Reacts with acids.
    - Reacts with strong acids.
  - **Conditions to avoid** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:**
    - Nitrogen oxides
    - Irritant gases/vapors
- 

## \* 11 Toxicological information

- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>7631-86-9 silicon dioxide, chemically prepared</b>		
Oral	LD50	10000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
  - The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Corrosive
  - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

(Contd. on page 7)

— USA —



# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

---

**Trade name: Metagel 166FRN Activator**


---

(Contd. from page 6)

- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>		
7631-86-9	silicon dioxide, chemically prepared	3   3-10%

· <b>NTP (National Toxicology Program)</b>		
None of the ingredients is listed.		

---

## \* 12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.
  - **Behavior in environmental systems:**
    - **Bioaccumulative potential** No further relevant information available.
  - **Additional ecological information:**
    - **General notes:** Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Danger to drinking water if even small quantities leak into the ground.
- 

## 13 Disposal considerations

- **Waste treatment methods**
    - **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - **Uncleaned packagings:**
    - **Recommendation:** Disposal must be made according to official regulations.
- 

## \* 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, ADR, IMDG, IATA</b>	UN1759
· <b>UN proper shipping name</b>	
· <b>DOT, IMDG, IATA</b>	CORROSIVE SOLID, N.O.S. (POLYOXYPROPYLENE DIAMINE)
· <b>ADR</b>	1759 CORROSIVE SOLID, N.O.S. (POLYOXYPROPYLENE DIAMINE)
· <b>Transport hazard class(es)</b>	
· <b>DOT, IMDG, IATA</b>	
· <b>Class</b>	8 Corrosive substances.

(Contd. on page 8)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

Trade name: Metagel 166FRN Activator

(Contd. from page 7)

· <b>Label</b>	8
· <b>ADR</b>	
· <b>Class</b>	8 (C10) Corrosive substances
· <b>Label</b>	8
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	III
· <b>ADR</b>	C10
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Danger code (Kemler):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Alkalis
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.

## \* 15 Regulatory information

### · Sara

· <b>Section 302 (extremely hazardous substances):</b>		
None of the ingredients is listed.		
· <b>Section 313 (Specific toxic chemical listings):</b>		
None of the ingredients is listed by CAS number.		
· <b>Sections 311/312 (Specific hazard chemical listings):</b>		
9046-10-0	polyoxypropylene diamine	
· <b>Sections 311/312 Hazard Categorizations:</b>		
9046-10-0	polyoxypropylene diamine	Category = A (Acute health hazard) >60%
· <b>TSCA (Toxic Substances Control Act):</b>		
All ingredients are listed.		
· <b>Proposition 65</b>		
· <b>Chemicals known to cause cancer:</b>		
None of the ingredients is listed.		
· <b>Chemicals known to cause reproductive toxicity for females:</b>		
None of the ingredients is listed.		
· <b>Chemicals known to cause reproductive toxicity for males:</b>		
None of the ingredients is listed.		

(Contd. on page 9)

— USA —

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/10/2012

Version 3

Reviewed on 05/10/2012

---

**Trade name: Metagel 166FRN Activator**


---

(Contd. from page 8)

· <b>Chemicals known to cause developmental toxicity:</b>
None of the ingredients is listed.
· <b>Carcinogenic categories</b>
· <b>EPA (Environmental Protection Agency)</b>
None of the ingredients is listed.
· <b>TLV (Threshold Limit Value established by ACGIH)</b>
None of the ingredients is listed.
· <b>MAK (German Maximum Workplace Concentration)</b>
None of the ingredients is listed.
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

## \* 16 Other information

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.

- **Relevant phrases**
  - R21 Harmful in contact with skin.
  - R21/22 Harmful in contact with skin and if swallowed.
  - R34 Causes burns.
  - R36/37 Irritating to eyes and respiratory system.
  - R43 May cause sensitisation by skin contact.
  - R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
  - R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R65 Harmful: may cause lung damage if swallowed.
- **Department issuing MSDS:** Technical department
- **Contact:** Dr. John F. Plummer
  - \* **Data compared to the previous version altered.**