



EMSEAL Safety Data Sheet  
Product Package

20H System



## EMSEAL Joint Systems, Ltd.

25 Bridle Lane, Westborough, MA 01581 USA

[www.emseal.com](http://www.emseal.com)

**Preparation Date** March 15, 2015    **Revision Date** March 14, 2019

# Safety Data Sheet

## EMSEAL 20H

### 1. Identification of the Substance / Preparation

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<b>Product identifier</b>	<b>20H</b>
<b>Other identifier or names</b>	All sizes of 20H Foam
<b>UN ID number</b>	None
<b>Manufacturer Address</b>	EMSEAL LLC 111 Royal Group Crescent Woodbridge, Ontario L4H 1X9 Canada
<b>Company Phone</b>	(508) 836-0280 M-F 9am - 5pm
<b>Emergency Phone</b>	CHEMTREC (800) 424-9300 (24 Hours)

### 2. Hazardous Identification

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<b>Hazardous Classification</b>	This product is not classified as hazardous when used as intended.
<b>Signal Word</b>	None
<b>Pictograms</b>	None
<b>Emergency Overview:</b>	No emergency requirements.

### 3. Composition / Information on Ingredients

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*EMSEAL 20H is composed of polyurethane foam (polyester type), flexible, impregnated with an asphalt and acrylic copolymer.*

These ingredients are not classified as hazardous as comprised in EMSEAL 20H.

### 4. First Aid Measures

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<b>4.1 EYES:</b>	Flush with water for at least 15 minutes, and call physician if problems persist.
<b>4.2 SKIN:</b>	Product may leave a sticky residue, and mild irritation if prolonged exposure. Scrub with soapy water until adhesive is removed.
<b>4.3 INGESTION:</b>	Do not eat – call physician if ingested.



## 5. Fire-fighting Measures

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<b>5.2 FLAMMABILITY:</b>	Slight. Material can support an open flame or smoldering ignition. The foam can melt while burning which can contribute fire to spread.
<b>5.2 FLASH POINT:</b>	Unknown.
<b>5.3 AUTO-IGNITION TEMPERATURE:</b>	Unknown.
<b>5.4 EXTINGUISHING MEDIA:</b>	Large volumes of water, or ABC chemical may be appropriate for initial control or small volumes of impregnated foam.
<b>5.5 HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Carbon di/mon oxides will be formed as well as other noxious and toxic fumes upon combustion – do not breath combustion products.

## 6. Accidental Release Measures

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If material is unusable pick up pieces and dispose of in accordance with local regulations; material and all components are non-toxic and normal landfill will most often be acceptable.

## 7. Handling and Storage

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Store in original packaging below 35°C. There are no special handling instructions.

## 8. Exposure Controls / Personal Protection

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<b>8.1 RESPIRATORY PROTECTION:</b>	Not required
<b>8.2 EYE PROTECTION:</b>	Not required
<b>8.3 SKIN PROTECTION:</b>	Gloves of any material are suitable if desired, but not required. No other protection is required.

## 9. Physical and Chemical Properties

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<b>9.1 APPEARANCE:</b>	Dark grey / charcoal colored foam reel supplied on a cardboard core.
<b>9.2 ODOR:</b>	Slight characteristic odor.
<b>9.3 PERCENT SOLIDS BY WEIGHT:</b>	100%
<b>9.4 PHYSICAL STATE:</b>	Solid
<b>9.5 PERCENT VOLATILE:</b>	<1% wt/wt
<b>9.6 DENSITY:</b>	0.4g/cm <sup>3</sup>
<b>9.7 DECOMPOSITION:</b>	> 300°C
<b>9.8 SOLUBILITY IN WATER:</b>	None



## **10. Stability and Reactivity**

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Stable under normal conditions – avoid temperatures in excess of 300°C, strong acids and bases, and open flame.

## **11. Toxicological Information**

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Unknown.

## **12. Ecological Information**

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Unknown

## **13. Disposal Considerations**

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No known hazard. Dispose of in accordance with local regulations; material and all components are non-toxic and disposal in normal landfill will most often be acceptable.

## **14. Transportation Information**

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Not hazardous – safe for non-hazardous shipping.

## **15. Regulatory Information**

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Unknown.

## **16. Other Information**

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No other information provided.

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## 1. Identification

Product name : Northern Manufacturing Construction Grade Epoxy Part A

Supplier : Northern Manufacturing  
111 Royal Group Crescent, Unit NM  
Woodbridge, ON L4H 1X9 Canada

Telephone : 416-740-2090 (8AM - 5PM EST) (M-F)

Emergency telephone : Chemtrec 1-800-424-9300 (24 Hours)

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

## 2. Hazards identification

### GHS Classification

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2A	H319: Causes serious eye irritation.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, Category 1A (Inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure.

### GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H350i May cause cancer by inhalation.  
H372 Causes damage to organs (Lungs) through prolonged or

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repeated exposure.

**Precautionary Statements**

- Prevention:**
  - P201 Obtain special instructions before use.
  - P202 Do not handle until all safety precautions have been read and understood.
  - P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
  - P264 Wash skin thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.
  - P271 Use only outdoors or in a well-ventilated area.
  - P272 Contaminated work clothing must not be allowed out of the workplace.
  - P280 Wear protective gloves/ eye protection/ face protection.
  - P281 Use personal protective equipment as required.
- Response:**
  - P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
  - P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P308 + P313 IF exposed or concerned: Get medical advice/ attention.
  - P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
  - P337 + P313 If eye irritation persists: Get medical advice/ attention.
  - P362 Take off contaminated clothing and wash before reuse.
- Storage:**
  - P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
  - P405 Store locked up.
- Disposal:**
  - P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.  
 There are no hazards not otherwise classified that have been identified during the classification process.  
 There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq 1\%$ .

### 3. Composition/information on ingredients

**Hazardous ingredients**

Chemical name	CAS-No.	Concentration (%)
Quartz (SiO <sub>2</sub> )	14808-60-7	$\geq 25 - < 50 \%$
bisphenol-A-(epichlorhydrin) epoxy resin	25068-38-6	$\geq 10 - < 20 \%$
oxirane, mono[(C12-14-alkyloxy)methyl]derivatives	68609-97-2	$\geq 5 - < 10 \%$

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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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**4. First aid measures**

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|---|--|
| If inhaled  | : Move to fresh air.<br>Consult a physician after significant exposure.  |
| In case of skin contact                                     | : Take off contaminated clothing and shoes immediately.<br>Wash off with soap and plenty of water.<br>If symptoms persist, call a physician.   |
| In case of eye contact                                      | : Immediately flush eye(s) with plenty of water.<br>Remove contact lenses.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.   |
| If swallowed  | : Clean mouth with water and drink afterwards plenty of water.<br>Do not induce vomiting without medical advice.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>Obtain medical attention.  |
| Most important symptoms and effects, both acute and delayed | : irritant effects<br>sensitizing effects<br>carcinogenic effects<br><br>Cough<br>Respiratory disorder<br>Allergic reactions<br>Excessive lachrymation<br>Erythema<br>Dermatitis<br>See Section 11 for more detailed information on health effects and symptoms.<br><br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause respiratory irritation.<br>May cause cancer by inhalation.<br>Causes damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders                                  | : Move out of dangerous area.<br>Consult a physician.<br>Show this material safety data sheet to the doctor in attendance.   |
| Notes to physician  | : Treat symptomatically.   |

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## 5. Fire-fighting measures

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

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## 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Deny access to unprotected persons.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

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## 7. Handling and storage

- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Follow standard hygiene measures when handling chemical products.
- Conditions for safe storage : Prevent unauthorized access.  
Store in original container.  
Keep in a well-ventilated place.  
Observe label precautions.  
Store in accordance with local regulations.
- Materials to avoid : No data available

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## 8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO2)	14808-60-7	OSHA Z-3	TWA	10 mg/m3 / %SiO2+2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO2+5 respirable
		OSHA P0	TWA	0.1 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

### \*\*Basis

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

### Engineering measures

: Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

### Personal protective equipment

#### Respiratory protection

: Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

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Hand protection Remarks	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Hygiene measures	: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.

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## 9. Physical and chemical properties

Appearance	: paste
Color	: white
Odor	: aromatic
Odor Threshold	: No data available
Flash point	: > 212 °F (> 100 °C)
Ignition temperature	: No data available
Decomposition temperature	: No data available
Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: Note: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: 0.01 mmHg (0.01 hpa)
Density	: 1.99 g/cm <sup>3</sup>

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Water solubility	:	Note: insoluble
Partition coefficient: n-octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm <sup>2</sup> /s
Relative vapor density	:	No data available
Evaporation rate	:	No data available
Burning rate	:	No data available
Volatile organic compounds (VOC) content	:	5 g/l A+B Combined

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## 10. Stability and reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available

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## 11. Toxicological information

### Acute toxicity

Not classified based on available information.

### Components:

#### bisphenol-A-(epichlorhydrin) epoxy resin:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 20,000 mg/kg

### Skin corrosion/irritation

Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

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**Germ cell mutagenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

Causes damage to organs (Lungs) through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Aspiration toxicity**

Not classified based on available information.

**Carcinogenicity**

May cause cancer by inhalation.

<b>IARC</b>	Group 1: Carcinogenic to humans	
	Quartz (SiO2)	14808-60-7
	Group 2B: Possibly carcinogenic to humans	
	titanium dioxide	13463-67-7
<b>NTP</b>	Known to be human carcinogen	
	Quartz (SiO2)	14808-60-7
	Titanium dioxide (13463-67-7)	

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that cause lung cancer. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

**12. Ecological information**

Other information Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Component:**

bisphenol-A-(epichlorhydrin) epoxy	25068-38-6	<u>Toxicity to fish:</u> LC50
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resin

Species: Oncorhynchus mykiss (rainbow trout)  
Dose: 2 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:  
EC50  
Species: Daphnia magna (Water flea)  
Dose: 1.8 mg/l  
Exposure time: 48 h

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## 13. Disposal considerations

### Disposal methods

- Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## 14. Transport information

### DOT

Not dangerous goods

### IATA

Not dangerous goods

### IMDG

Not dangerous goods

### Special precautions for user

No data available

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

Not applicable

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## 15. Regulatory information

### TSCA list

- : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

### EPCRA - Emergency Planning and Community Right-to-Know

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

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**SARA304 Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Chronic Health Hazard  
 Skin corrosion or irritation  
 Serious eye damage or eye irritation  
 Respiratory or skin sensitization  
 Carcinogenicity  
 Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

**Ozone-Depletion Potential** This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).  
 This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

**California Prop 65**  **WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**16. Other information**

**HMIS Classification**

<b>Health</b>	*	3
<b>Flammability</b>		1
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		x

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

**Notes to Reader**

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Material number: 577437

## Northern Manufacturing Construction Grade Epoxy Part B

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**1. Identification**

Product name : Northern Manufacturing Construction Grade Epoxy Part B

Supplier : Northern Manufacturing  
111 Royal Group Crescent, Unit NM  
Woodbridge, ON L4H 1X9 Canada

Telephone : 416-740-2090 (8AM - 5PM EST) (M-F)

Emergency telephone : Chemtrec 1-800-424-9300 (24 Hours)

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

**2. Hazards identification****GHS Classification**

Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, Category 1A (Inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure.

**GHS label elements**

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H350i May cause cancer by inhalation.  
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure.

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Precautionary Statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P281 Use personal protective equipment as required.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P310 Immediately call a POISON CENTER/doctor.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

Warning : Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain,liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

See Section 11 for more detailed information on health effects and symptoms.  
There are no hazards not otherwise classified that have been identified during the classification process.  
There are no ingredients with unknown acute toxicity used in a mixture at a concentration  $\geq$  1%.

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### 3. Composition/information on ingredients

#### Hazardous ingredients

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Chemical name	CAS-No.	Concentration (%)
Quartz (SiO <sub>2</sub> )	14808-60-7	>= 25 - < 50 %
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	10563-29-8	>= 3 - < 5 %
m-phenylenebis(methylamine)	1477-55-0	>= 1 - < 2 %
Benzyl alcohol	100-51-6	>= 1 - < 2 %
salicylic acid	69-72-7	>= 1 - < 2 %
triethylenetetramine	112-24-3	>= 0.1 - < 1 %

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

#### 4. First aid measures

- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not induce vomiting without medical advice.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Health injuries may be delayed.  
corrosive effects  
irritant effects  
sensitizing effects  
carcinogenic effects
- Cough  
Respiratory disorder  
Allergic reactions  
Dermatitis  
See Section 11 for more detailed information on health effects and symptoms.
- May cause an allergic skin reaction.  
Causes serious eye damage.

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May cause respiratory irritation.  
May cause cancer by inhalation.  
Causes damage to organs through prolonged or repeated exposure.  
Causes severe burns.

Protection of first-aiders : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.

Notes to physician : Treat symptomatically.

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**5. Fire-fighting measures**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

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**6. Accidental release measures**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Deny access to unprotected persons.

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

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**7. Handling and storage**

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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Smoking, eating and drinking should be prohibited in the application area.  
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Prevent unauthorized access.  
Store in original container.  
Keep in a well-ventilated place.  
Observe label precautions.  
Store in accordance with local regulations.

Materials to avoid : No data available

**8. Exposure controls/personal protection**

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO2)	14808-60-7	OSHA Z-3	TWA	10 mg/m3 / %SiO2+2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO2+5 respirable
		OSHA P0	TWA	0.1 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust
m-phenylenebis(methylamine)	1477-55-0	ACGIH	C	0.1 mg/m3
		OSHA P0	C	0.1 mg/m3

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**\*\*Basis**

ACGIH. Threshold Limit Values (TLV)  
OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)  
OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant  
OSHA P2. Permissible Exposure Limits (PEL), Table Z-2  
OSHA Z3. Table Z-3, Mineral Dust

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**Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Personal protective equipment**

**Respiratory protection** : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

**Hand protection**  
**Remarks** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

**Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**Hygiene measures** : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Wash thoroughly after handling.

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**9. Physical and chemical properties**

- Appearance : paste
- Color : dark gray
- Odor : amine-like
- Odor Threshold : No data available
- Flash point : > 212 °F (> 100 °C)
- Ignition temperature : No data available
- Decomposition temperature : No data available

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Lower explosion limit (Vol%)	: No data available
Upper explosion limit (Vol%)	: No data available
Flammability (solid, gas)	: No data available
Oxidizing properties	: No data available
pH	: Note: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: 0.01 mmHg (0.01 hpa)
Density	: 2.01 g/cm3
Water solubility	: Note: slightly soluble
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm2/s
Relative vapor density	: No data available
Evaporation rate	: No data available
Burning rate	: No data available
Volatile organic compounds (VOC) content	: 5 g/l A+B Combined

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**10. Stability and reactivity**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: No data available
Incompatible materials	: No data available

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**11. Toxicological information****Acute toxicity**

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Not classified based on available information.

**Components:****m-phenylenebis(methylamine):**

Acute oral toxicity : LD50 Oral (Rat): 930 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1.34 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 3,100 mg/kg

**Benzyl alcohol:**

Acute oral toxicity : LD50 Oral (Rat): 1,620 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4.178 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

**salicylic acid:**

Acute oral toxicity : LD50 Oral (Rat): 891 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg

**triethylenetetramine:**

Acute oral toxicity : LD50 Oral (Rat): 1,716 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 1,465 mg/kg

**Skin corrosion/irritation**

Causes severe burns.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory or skin sensitization**

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

Causes damage to organs (Lungs) through prolonged or repeated exposure.

Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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**Aspiration toxicity**

Not classified based on available information.

**Carcinogenicity**

May cause cancer by inhalation.

**IARC**

Group 1: Carcinogenic to humans

**NTP**Quartz (SiO<sub>2</sub>) 14808-60-7  
Known to be human carcinogenQuartz (SiO<sub>2</sub>) 14808-60-7**12. Ecological information**

## Other information

Do not empty into drains; dispose of this material and its container in a safe way.  
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.**Component:**m-phenylenebis(methylamine)  
1477-55-0Toxicity to fish:

LC50

Species: Oryzias latipes (Japanese medaka)

Dose: &gt; 10 - 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50

Species: Daphnia magna (Water flea)

Dose: &gt; 10 - 100 mg/l

Exposure time: 48 h

Benzyl alcohol 100-51-6

Toxicity to fish:

LC50

Species: Fish

Dose: &gt; 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50

Species: Daphnia magna (Water flea)

Dose: &gt; 100 mg/l

Exposure time: 48 h

triethylenetetramine 112-24-3

Toxicity to fish:

LC50

Species: Pimephales promelas (fathead minnow)

Dose: &gt; 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50

Species: Daphnia

Dose: 10 - 100 mg/l

Exposure time: 48 h

Toxicity to algae:

EC50

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Species: Pseudokirchneriella subcapitata (green algae)  
 Dose: 10 - 100 mg/l  
 Exposure time: 72 h

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**13. Disposal considerations**
**Disposal methods**

- Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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**14. Transport information**
**DOT**

UN number	1760
Description of the goods	Corrosive liquids, n.o.s. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, m-phenylenebis(methylamine))
Class	8
Packing group	III
Labels	8
Emergency Response Guidebook Number	154

**IATA**

UN number	1760
Description of the goods	Corrosive liquid, n.o.s. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, m-phenylenebis(methylamine))
Class	8
Packing group	III
Labels	8
Packing instruction (cargo aircraft)	856
Packing instruction (passenger aircraft)	852
Packing instruction (passenger aircraft)	Y841

**IMDG**

UN number	1760
Description of the goods	CORROSIVE LIQUID, N.O.S. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, m-phenylenebis(methylamine))

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Class	8
Packing group	III
Labels	8
EmS Number 1	F-A
EmS Number 2	S-B

Marine pollutant	no
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DOT: For Limited Quantity exceptions reference 49 CFR 173.154 (b)

IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

**Special precautions for user**

No data available

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

Not applicable

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**15. Regulatory information**

**TSCA list** : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA304 Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Chronic Health Hazard  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization  
Carcinogenicity  
Specific target organ toxicity (single or repeated exposure)

**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

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**Ozone-Depletion Potential**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

**California Prop 65**

 **WARNING:** Cancer – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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**16. Other information**

**HMIS Classification**

<b>Health</b>	*	3
<b>Flammability</b>		1
<b>Physical Hazard</b>		0
<b>Personal Protection</b>		X

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

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Revision Date 12/05/2019

Material number: 579211



**EMSEAL Joint Systems, Ltd.**  
25 Bridle Lane, Westborough, MA 01581 USA  
[www.emseal.com](http://www.emseal.com)

# Safety Data Sheet

## Top Coat 200

**Preparation Date** March 15, 2015    **Revision Date** March 14, 2019

### 1. Identification of the Substance / Preparation

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<b>Product identifier</b>	<b>Top Coat 200</b>
Other identifier or names	None
UN ID number	None
Manufacturer Address	EMSEAL LLC 111 Royal Group Crescent Woodbridge, ON L4H 1X9 Canada
Company Phone	(508) 836-0280 M-F 9am - 5pm
Emergency Phone	CHEMTREC (800) 424-9300 (24 Hours)

### 2. Hazardous Identification

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<b>Hazardous Classification</b>	This product is not classified as hazardous when used as intended.
<b>Signal Word</b>	None
<b>Pictograms</b>	None
<b>Emergency Overview:</b>	No emergency requirements.

### 3. Composition / Information on Ingredients

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***Top Coat 200 is composed of polymer modified rubberized asphalt emulsion.***

These ingredients are not classified as hazardous as comprised in Top Coat 200.

### 4. First Aid Measures

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<b>4.1 EYES:</b>	Flush with water for at least 15 minutes, and call physician if problems persist.
<b>4.2 SKIN:</b>	Product may leave a sticky residue, and mild irritation if prolonged exposure. Scrub with soapy water until adhesive is removed.
<b>4.3 INGESTION:</b>	Do not eat. If victim is conscious give two glasses of water and induce vomiting. Call physician.



## 5. Fire-fighting Measures

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<b>5.2 FLAMMABILITY:</b>	Not flammable
<b>5.2 FLASH POINT:</b>	Unknown.
<b>5.3 AUTO-IGNITION TEMPERATURE:</b>	Unknown.
<b>5.4 EXTINGUISHING MEDIA:</b>	Not applicable
<b>5.5 HAZARDOUS DECOMPOSITION PRODUCTS:</b>	On burning dry film, some SO <sub>2</sub> and carbon di/mon oxides will be formed as well as other noxious and toxic fumes upon combustion -- do not breath compustion byproducts.

## 6. Accidental Release Measures

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If material is wet, scrape into disposal containers. If material is dry pick up pieces and dispose of in accordance with local regulations; material and all components are non-toxic and normal landfill will most often be acceptable.

## 7. Handling and Storage

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Store in original packaging below 35°C. Protect from freezing. There are no special handling instructions.

## 8. Exposure Controls / Personal Protection

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<b>8.1 RESPIRATORY PROTECTION:</b>	Not required
<b>8.2 EYE PROTECTION:</b>	Safety goggles to protect against splashing.
<b>8.3 SKIN PROTECTION:</b>	Gloves are suggested when handling.

## 9. Physical and Chemical Properties

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<b>9.1 APPEARANCE:</b>	High viscosity dark brown liquid.
<b>9.2 ODOR:</b>	Slight characteristic odor.
<b>9.3 PERCENT SOLIDS BY WEIGHT:</b>	67%
<b>9.4 PHYSICAL STATE:</b>	Solid
<b>9.5 PERCENT VOLATILE:</b>	<1% wt/wt
<b>9.6 DENSITY:</b>	1.03g/cm <sup>3</sup>
<b>9.7 DECOMPOSITION:</b>	> 100°C
<b>9.8 SOLUBILITY IN WATER:</b>	Miscible in water as supplied. Insoluble when dry.



## **10. Stability and Reactivity**

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Stable under normal conditions – avoid temperatures in excess of 100°C, temperatures below 0°C, strong acids and bases.

## **11. Toxicological Information**

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Will cause eye irritation if not washed immediately. Could also cause gastro-intestinal problems if ingested in large quantity.

## **12. Ecological Information**

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Unknown

## **13. Disposal Considerations**

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No known hazard. When dry dispose of in accordance with local regulations; material and all components are non-toxic and disposal in normal landfill will most often be acceptable.

## **14. Transportation Information**

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Not hazardous – safe for non-hazardous shipping.

## **15. Regulatory Information**

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Unknown.

## **16. Other Information**

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No other information provided.