

# PRODUCT DATA SHEET

## Metacaulk® 350i Firestopping Sealant

August 2009



Classified System Numbers CAJ 1541, CAJ 1542, CAJ 1543, CAJ 1544, CAJ 2550, CAJ 2551, CAJ 2552, CAJ 2553, CAJ 2554, CAJ 2555, CAJ 2556, CAJ 3256, CAJ 5296, CAJ 5297, CAJ 7112, CAJ 8175, FA 1070, FC 1138, FC 1139, FC 2326, FC 2327, FC 2329, FC 3092, FC 5074, FC 5075, FC 7038, FC 8039, WJ 1194, WJ 1195, WJ 2195, WJ 2196, WJ 2197, WJ 2198, WJ 5128, WJ 5129, WJ 5130, WJ 7078, WJ 7079, WL 1393, WL 1394, WL 1395, WL 1396, WL 2455, WL 2456, WL 2457, WL 2458, WL 3294, WL 5294, WL 5250, WL 5451, WL 5252, WL 7137, WL 7138



### 1. Product Description

Metacaulk® 350i is a one component, general purpose fire rated sealant and smoke seal for construction joints and through-penetrations. Metacaulk® 350i is a water based, extremely intumescent, non-sag caulking grade sealant that is easy to apply as well as to retrofit. It cures to an elastomeric seal that is suitable where dynamic movement is expected. In the event of a fire, Metacaulk® 350i will prevent the spread of flames, smoke, hot gases and water through joint openings and through-penetrations. No dilution or mixing is required for use. No special skills are necessary for installation. Metacaulk® 350i is applied with a conventional caulking gun, bulk loading gun or can be troweled from the pail. For large applications, it can be pumped directly from the pail. Metacaulk® 350i systems are rated for 1, 2 and 3 hours in accordance with the ASTM E814 (UL1479), UL 2079 and ULC-S115-95 test standards. **Metacaulk® 350i is protected in a wet stage as well as in a dry stage against mold growth with a combination of biocides.**

Use Metacaulk® 350i for various applications:

- Top of the Wall Construction Joints
- Deflection Track Wall Systems
- Up to 2" (51 mm) PVC (Open)
- Crosslinked Polyethylene (PEX) tubing
- Steel, Copper, Cast Iron and EMT Pipe
- Flexible Conduit
- Fiberglass Insulated Pipe
- Armaflex Insulated Pipe
- Telephone, Communication and Power Cables
- HVAC Ductwork

For a complete list of product applications or for additional technical information, call RECTORSEAL for the latest updated information.

### Metacaulk® 350i Features

- Highly Intumescent
- Water Based
- Excellent Freeze-Thaw
- Flexible Set
- Paintable
- VOC Compliant
- Safe and Easy to Use
- Minimum 2 Year Shelf Life
- Protected against mold growth

### 2. Material Properties

Asbestos Fillers	None
Solvents	None
Hazardous Ingredients	None

Application	Caulking Gun or Trowel
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Activation of Intumescence:

Expansion Begins	375° F (190°C)
Expansion Greatest	575° (302°) to 1100° F (593° C)

Color	Dark Red
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Fully Cured Time	3 to 4 weeks (at 77°F/ 25°C)
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Density	10.5 +/- 0.5 lbs./gal. 1.25 g/cc
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Elastomeric	Yes
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Freeze-Thaw	Excellent
Skin Over Time	30 min. (at 77° F/ 25°C)

pH Value	6.5 to 7
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Volume Coverage:

for 10.3 oz. tube (304ml)	18 cu. in. (295 cc)
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for 5 gallon (18.9 liter)	1155 cu. in. (5000 cu. cm/L)
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VOC	Negligible
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### ASTM E 84, UL 723 Tunnel Test

Flame Spread	5
Smoke Index	10

STC 53\*

\*Tested in a UL 411 wall assembly/section to ASTM E90.

### 3. Applications

Metacaulk® 350i can be used in interior applications as a general purpose fire rated sealant and smoke seal for construction joints on both vertical and horizontal surfaces. Metacaulk® 350i is also an excellent fire rated acoustical sealant and can be used in areas under constant vibration or movement. Metacaulk® 350i can also be used on various penetrations such as EMT, telephone & power cables, insulated pipes, etc. in concrete floors and walls, gypsum walls as well as wood floors. Use Metacaulk® 350i to prevent the spread of fire and smoke through joints in fire rated gypsum wallboard partitions, concrete block or concrete walls and/or concrete or corrugated steel deck floor/ceiling assemblies.

#### 4. Installation Data

Install Metacaulk® 350i using standard caulking techniques or trowel from pails. Metacaulk® 350i may also be pumped from the pails. When damming materials are needed, use only materials approved for the specific application. Consult UL Directory for complete instructions and system listings.

#### 5. Testing Data

For specific test criteria, refer to the UL's Fire Resistance Directory or Warnock Hersey International Listing Directory or call RECTORSEAL

Metacaulk® 350i was tested at positive pressure with a minimum 0.01 (2.5 Pa) inches water and in accordance with ASTM E814 (UL 1479), UL 2079 and ULC-S115-95.

Complies to UL Required Environmental Exposure Testing of Accelerated Aging and High Humidity for intumescent materials as per UL 1479 Fire Test of Through-Penetration Firestops.



FGG/BM/CZ™ System Compatible\* indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® pipe and fittings. FlowGuard Gold®, BlazeMaster® and Corzan® are

licensed trademarks of the Lubrizol corporation.

#### 6. Storage & Handling

Metacaulk® 350i should be stored between 35°F (2°C) and 120° F (49° C). to obtain a minimum 2 year shelf life. NOTE: Do not dilute, no mixing is required. Best if protected

from freezing. If freezing occurs, thaw completely before using. Keep products stored under protective cover in original containers.

#### 7. Availability

Metacaulk® 350i is available in 10.3 oz. (304 ml), 30 oz. (887 ml) caulking tubes and 20.2 oz. (597 ml) sausage pack and in 5 gallon (18.9 L) pails.

#### 8. Limitations

Metacaulk® 350i is not designed to be used in areas under continuous immersion or in areas which would be continuously wet. Metacaulk® 350i should not be used against hot uninsulated surfaces above 300° F (149° C).

#### 9. Cautions

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC-DAY OR NIGHT 1-800-424-9300.**

**PRECAUTIONS:** Do not take internally. May be harmful if swallowed. May cause eye and skin irritation if prolonged or repeated contact occurs. Wash after handling. **FIRST AID:** For any overexposure, get immediate medical attention after first aid is given. **Eyes-** Flush 15 minutes with clean water. **Skin-** Wash with soap and water. **Inhalation-** Remove to fresh air. **Ingestion-** Only if conscious, give large amounts of water and INDUCE VOMITING. **FIRE AND SPILLS:** Use water fog, CO<sub>2</sub>, foam, or dry chemicals. Wipe up spills to prevent footing hazard. Clean up with scrapers and water. **STORAGE AND HANDLING:** Store away from heat sources. Keep container closed. Do not reuse empty container. **KEEP OUT OF REACH OF CHILDREN.**

For additional information, refer to Material Safety Data Sheet.

**For additional technical service,  
call: 1-800-231-3345  
fax: 1-800-452-2824  
www.rectorseal.com  
www.metacaulk.com**

RECTORSEAL  
2601 Spenwick Drive  
HOUSTON, TEXAS 77055, USA  
WWW.RECTORSEAL.COM  
WWW.METACAULK.COM

#### 10. LIMITED WARRANTY

RectorSeal makes the Limited Express Warranty that when the instructions for storage and handling of our products are followed we warrant our products to be free from defects. THIS LIMITED EXPRESS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY OTHER OBLIGATION ON THE PART OF RECTORSEAL. The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and RectorSeal shall not be liable for incidental or consequential damages.

Suggestions and recommendations covering the use of our products are based on our past experience and laboratory findings. However, as we have no control as to the methods and conditions of application, we only assume responsibility for the uniformity of our products within manufacturing tolerances.

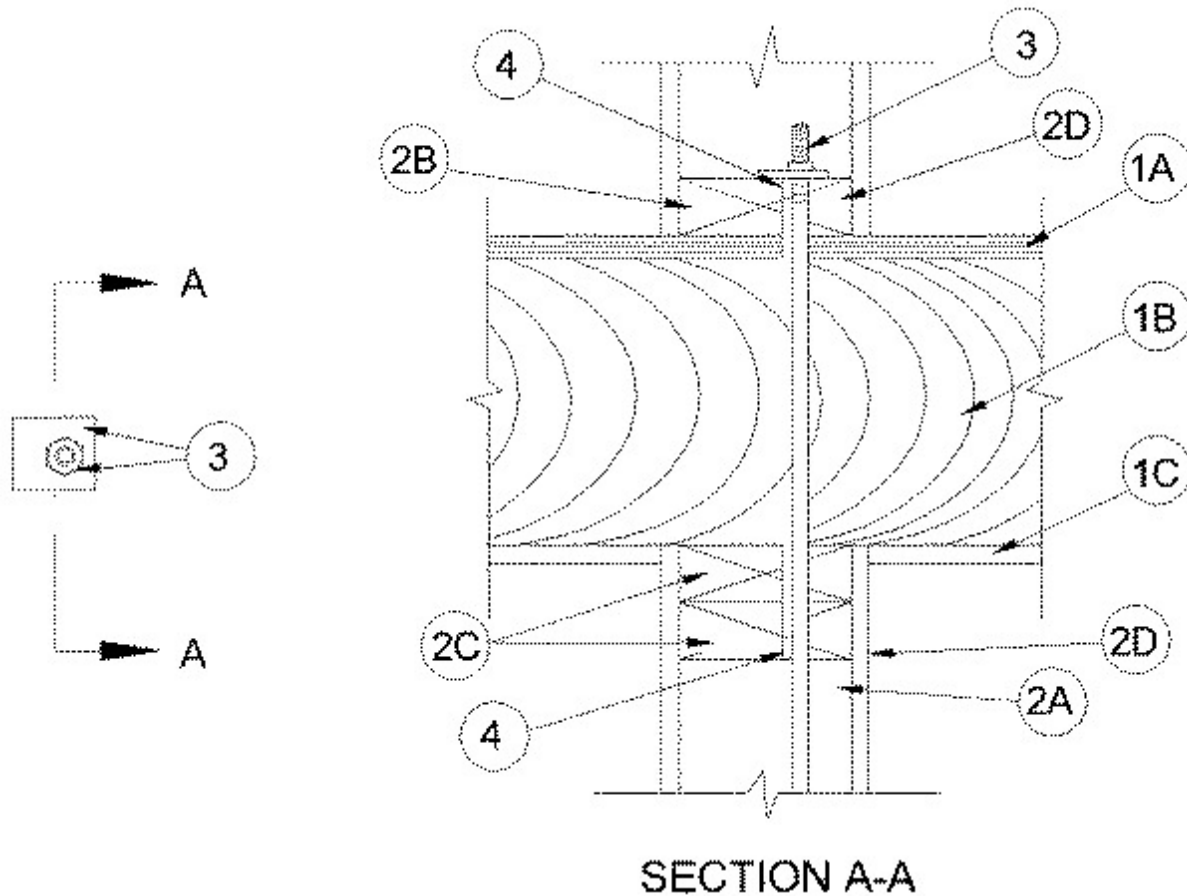


### System No. F-C-7040

December 05, 2005

F Rating — 1 Hr

T Rating — 1 Hr



1. **Floor-Ceiling Assembly** — The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory, as summarized below:

A. **Flooring System** — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture\*** as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 1 in. (25 mm).

B. **Wood Joists** — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members\*** with bridging as required and with ends firestopped.

C. **Gypsum Board\*** — Nom 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to joists as specified in the individual Floor-Ceiling Design.

2. **Chase Wall** — The through penetrant (Item 3) shall be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum board chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Nom 2 by 6 in. (51 by 152 mm) lumber or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

**B. Sole Plate** — Nom 2 by 6 in. (51 by 152 mm) lumber or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 1 in. (25 mm).

**C. Top Plate** — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) lumber plates or two sets of nom 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 1 in. (25 mm).

**D. Gypsum Board\*** — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

**3. Through Penetrant** — One min 1/4 in. (6 mm) diam galvanized wire rope to be installed either concentrically or eccentrically within the firestop system. The wire rope shall be coupled to a min 1/2 in. (13 mm) diam threaded steel rod penetrating the sole plate on the top side of the floor-ceiling assembly or the top side of the top plate at the top of the wall. The annular space shall be 0 in. (point contact) to max 1/2 in. (13 mm). The threaded rod is secured to the sole plate or top plate with a steel nut in conjunction with a min 3 by 3 in. (76 by 76 mm) by 1/4 in. (6 mm) thick steel plate.

**4. Fill, Void or Cavity Material\* - Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within annulus, flush with top surface of sole plate. Min 1/2 in. (13 mm) thickness of fill material applied within annulus flush with bottom surface of lower top plate.

**RECTORSEAL** — Metacaulk 150, 150+, 1000 or 1200

\*Bearing the UL Classification Mark

## MATERIAL SAFETY DATA SHEET

MSDS 0626

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 Section 1 -- PRODUCT AND COMPANY IDENTIFICATION  
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	HMIS CODES	
PRODUCT NAME	Health	1
Metacaulk 350i	Flammability	0
	Reactivity	0
PRODUCT CODES	PPI	B
66610, 66611, 66612, 66613		
CHEMICAL FAMILY:		
Organic/Inorganic		
USE		
Firestopping Sealant		
MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.	
The RectorSeal Corporation	Chemtrec 24 Hours	
2601 Spenwick Drive	(800) 424-9300	
Houston, Texas 77055 USA		
DATE OF PREPARATION	TECHNICAL SERVICE TELEPHONE NO.	
May 20, 2005	(800) 231-3345	

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 Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS  
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% by WT	CAS No.	INGREDIENT	UNITS
None as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200.			

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 Section 3 -- HAZARDS IDENTIFICATION  
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## SUMMARY OF ACUTE HAZARDS

May cause skin irritation.

## ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

## INHALATION

Not a respiratory irritant.

## EYE CONTACT

Contact may cause eye irritation.

## SKIN CONTACT

Contact may cause skin irritation.

## INGESTION

Possible irritation to mucous membranes of the mouth, throat, and stomach.

## SUMMARY OF CHRONIC HAZARDS

None known.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Persons with pre-existing skin conditions or chemical allergies may be more susceptible to contact effects of the cured elastomer.

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 Section 4 -- FIRST AID MEASURES  
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If INHALED: Not a respiratory irritant.

If on SKIN: Wash with soap and water. If irritation occurs, seek medical attention.

If in EYES: Immediately flush with large amounts of water. If irritation occurs, seek medical attention.

If SWALLOWED: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

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 Section 5 -- FIRE FIGHTING MEASURES  
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FLASH POINT	LEL	UEL
None	N/D	N/D

## EXTINGUISHING MEDIA

Foam, dry chemical, carbon dioxide or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat may build up and rupture closed containers.

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 Section 6 -- ACCIDENTAL RELEASE MEASURES  
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wipe up spills to prevent footing hazard. Avoid flushing into sewers, drains, waterways and soil. Wear protective clothing during clean up.

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 Section 7 -- HANDLING AND STORAGE  
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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use. To prevent freezing and possible rupture of container, do not store below 40 F.

OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues and vapors; treat as if full and observe all product precautions. Do not reuse empty containers. KEEP OUT OF REACH OF CHILDREN.

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 Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION  
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RESPIRATORY PROTECTION (SPECIFY TYPE): None required.

VENTILATION - LOCAL EXHAUST: Acceptable

SPECIAL: N/A

MECHANICAL (GENERAL): Preferable

OTHER: N/A

PROTECTIVE GLOVES: Wear rubber gloves.

EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent)

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.

WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

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 Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES  
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BOILING POINT: 212 F (100 C) @ 760mm Hg

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.25

VAPOR PRESSURE (mm Hg): 17 @ 68 F (20 C)

MELTING POINT: N/A

VAPOR DENSITY (AIR = 1): N/A

EVAPORATION RATE (ETHYL ACETATE = 1): >1

APPEARANCE/ODOR: Red Paste/Mild Odor

SOLUBILITY IN WATER: Soluble

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 Section 10 -- STABILITY AND REACTIVITY  
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STABILITY: Stable

CONDITIONS TO AVOID: None

INCOMPATIBILITY (MATERIALS TO AVOID): None known.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub> and fragmented hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

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 Section 11 -- TOXICOLOGY INFORMATION  
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CHRONIC HEALTH HAZARDSNo ingredients in this product is an IARC, NTP or OSHA listed carcinogen.  
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## TOXICOLOGY DATA

Ingredient Name  
-----None  
=====Section 12 -- Ecological Information  
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## ECOLOGICAL DATA

Ingredient Name  
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None

Food Chain Concentration Potential	N/A
WATERFOWL TOXICITY	N/A
BOD	N/A
AQUATIC TOXICITY	N/A

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Section 13 -- DISPOSAL CONSIDERATIONS
  
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Waste Classification: Non-regulated solid waste

Disposal Method: Approved landfill

Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.  
=====Section 14 -- TRANSPORTATION INFORMATION  
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DOT: Non-Regulated

OCEAN (IMDG): Non-Regulated

AIR (IATA): Non-Regulated

WHMIS (CANADA): Non-Regulated  
=====Section 15 -- REGULATORY INFORMATION  
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## REGULATORY DATA

Ingredient Name  
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None

SARA 313	N/A
TSCA Inventory	All components listed
CERCLA RQ	N/A
RCRA Code	N/A

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Section 16 -- OTHER INFORMATION
  
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This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001