



# MATERIAL SAFETY DATA SHEET

**CHROMATE INDUSTRIAL CORPORATION®**  
5250-A Naiman Parkway, Solon, OH 44139 • 888-567-2206 • www.chromate.com

**FOR CHEMICAL  
EMERGENCY**

Call ChemTrec day/night:  
**1-800-424-9300**

## SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M Fire Barrier Foam FIP 1-Step, **PART A**

**DATE PREPARED:** April 3, 2014

**PART NUMBER:** 74588

**CHROMATE INDUSTRIAL CORPORATION**

**PRODUCT TYPE:** Foam-In-Place Firestop

**5250-A Naiman Parkway, Solon, OH 44139 • (888) 567-2206**

## SECTION 2 – INGREDIENTS

INGREDIENT	C.A.S. NO.	% BY WT
Polymer NJTSRN 04499600-6935	Trade Secret	30 - 60
Non-Halogen Flame Retardant NJTSRN 04499600-6939	Trade Secret	10 - 30
Phosphate NJTSRN 04499600-6938	Trade Secret	10 - 30
Wax NJTSRN 04499600-6936	Trade Secret	1 - 10
Smoke Suppressant NJTSRN 04499600-6941	Trade Secret	1 - 10
Water	7732-18-5	< 5
Siloxanes NJTSRN 04499600-6937	Trade Secret	< 5
Catalyst NJTSRN 04499600-6940	Trade Secret	< 5

## SECTION 3 – HAZARDS IDENTIFICATION

### 3.1 EMERGENCY OVERVIEW

**ODOR, COLOR, GRADE:** Red-brown with earthy odor

**GENERAL PHYSICAL FORM:** Liquid

**Immediate health, physical, and environmental hazards:**

### 3.2 POTENTIAL HEALTH EFFECTS

**Eye Contact:**

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

**Skin Contact:**

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

**Inhalation:**

Vapors released during curing may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

## SECTION 4 – FIRST AID MEASURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

**Inhalation:** If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5 – FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

**Flash Point:** No flash point.

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** No unusual fire or explosion hazards are anticipated.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### 6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Avoid contact with water.

### 6.2. ENVIRONMENTAL PRECAUTIONS

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

#### Clean-up methods:

Observe precautions from other sections. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7 – HANDLING AND STORAGE

### 7.1 HANDLING

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid eye contact with vapors, mists, or spray. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid contact with water. Avoid contact with oxidizing agents. Keep out of the reach of children.

### 7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from oxidizing agents. Store away from strong bases.

**SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 ENGINEERING CONTROLS**

Use in a well-ventilated area. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**8.2.1 Eye/Face Protection**

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles

**8.2.2 Skin Protection**

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber, Nitrile Rubber, Polymer laminate

**8.2.3 Respiratory Protection**

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Avoid breathing of vapors created during cure cycle.

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

**8.2.4 Prevention of Swallowing**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

**8.3 EXPOSURE GUIDELINES**

Ingredient	Authority	Type	Limit	Additional Information
Aluminum, insoluble compounds	ACGIH	TWA, respirable fraction	1 mg/m3	

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Odor, Color, Grade:</b>	Red-brown with earthy odor
<b>General Physical Form:</b>	Liquid
<b>Flash Point:</b>	No flash point
<b>Specific Gravity:</b>	1.3
<b>pH:</b>	6 - 8 [ @ 20 ]
<b>Solubility in Water:</b>	Negligible
<b>Volatile Organic Compounds:</b>	< 1
<b>VOC Less H2O &amp; Exempt Solvents:</b>	< 10 g/l
<b>Viscosity</b>	250 - 350 MPa-s

**SECTION 10 – STABILITY AND REACTIVITY**

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 CONDITIONS TO AVOID**

Heat

**10.2 MATERIALS TO AVOID**

Alcohols  
Amines  
Strong acids  
Strong bases  
Strong oxidizing agents  
Water

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Hazardous Decomposition or By-Products**

<b>Substance</b>	<b>Condition</b>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Ammonia	During Combustion

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Contact 3M Building and Commercial Services Division, 3M Center, St. Paul, MN 55144-1000.

**Emergency Phone:** 1-800-364-3577 or (651) 737-6501 (24 hrs.).

**SECTION 12 – ECOLOGICAL INFORMATION**

**Ecotoxicological Information:** Not determined.

**Chemical Fate Information:** Not determined.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Cure (harden, set, or react) the product according to product instructions.

Dispose of completely cured (or polymerized) wastes in a sanitary landfill.

**EPA Hazardous Waste Number (RCRA):** Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

**SECTION 14 – TRANSPORT INFORMATION**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

**SECTION 15 – REGULATORY INFORMATION****US FEDERAL REGULATIONS**

Contact 3M for more information.

**STATE REGULATIONS**

Contact 3M for more information.

**CHEMICAL INVENTORIES**

Contact 3M for more information.

**INTERNATIONAL REGULATIONS**

Contact 3M for more information.

**This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

**SECTION 16 – OTHER INFORMATION**

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. CHROMATE INDUSTRIAL CORPORATION (CIC) MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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**3M USA MSDSs are available at [www.3M.com](http://www.3M.com).**



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## SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M Fire Barrier Foam FIP 1-Step, **PART B**

**DATE PREPARED:** April 3, 2014

**PART NUMBER:** 74588

**CHROMATE INDUSTRIAL CORPORATION**  
5250-A Naiman Parkway, Solon, OH 44139 • (888) 567-2206

**PRODUCT TYPE:** Foam-In-Place Firestop

## SECTION 2 – INGREDIENTS

INGREDIENT	C.A.S. NO.	% BY WT
POLYMETHYLENE POLYPHENYLENE ISOCYANATE	9016-87-9	60 - 100 (TYPICALLY 100)

## SECTION 3 – HAZARDS IDENTIFICATION

### 3.1 EMERGENCY OVERVIEW

**ODOR, COLOR, GRADE:** Brown with earthy odor

**GENERAL PHYSICAL FORM:** Liquid

**IMMEDIATE HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS:** Hazardous polymerization may occur. May cause severe eye irritation. May cause severe skin irritation. May cause allergic skin reaction. May cause allergic respiratory reaction. May cause target organ effects.

### 3.2 POTENTIAL HEALTH EFFECTS

**EYE CONTACT:** Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**SKIN CONTACT:** Severe Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**INHALATION:** May be harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

**INGESTION:** Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**TARGET ORGAN EFFECTS:** Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

## SECTION 4 – FIRST AID MEASURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**EYE CONTACT:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

**SKIN CONTACT:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**INHALATION:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**IF SWALLOWED:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5 – FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

**AUTOIGNITION TEMPERATURE:** No Data Available

**FLASH POINT:**  $\geq 220$  °C [Test Method: Closed Cup]

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**SPECIAL FIRE FIGHTING PROCEDURES:** Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Closed containers exposed to heat from fire may build pressure and explode.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.



**SECTION 6 – ACCIDENTAL RELEASE MEASURES****6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Avoid contact with water. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

**6.2. ENVIRONMENTAL PRECAUTIONS**

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

**CLEAN-UP METHODS**

Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

**SECTION 7 – HANDLING AND STORAGE****7.1 HANDLING**

Avoid breathing of vapors created during cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors. Do not get on skin or on clothing. Avoid eye contact with vapors, mists, or spray. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid contact with water.

**7.2 STORAGE**

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from strong bases.

**SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 ENGINEERING CONTROLS**

Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**8.2.1 EYE/FACE PROTECTION**

Avoid eye contact with vapors, mists, or spray.  
The following eye protection(s) are recommended: Indirect Vented Goggles

**8.2.2 SKIN PROTECTION**

Do not get on skin or on clothing.  
Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.  
Gloves made from the following material(s) are recommended: Butyl Rubber, Nitrile Rubber, Polymer Laminate  
The following protective clothing material(s) are recommended: Apron - polymer laminate

**8.2.3 RESPIRATORY PROTECTION**

Avoid breathing of vapors created during cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapors.  
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure: Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates  
For questions about suitability for a specific application, consult with your respirator manufacturer.

**8.2.4 PREVENTION OF SWALLOWING**

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

**8.3 EXPOSURE GUIDELINES**

Ingredient	Authority	Type	Limit	Additional Information
Benzene, 1,1'-methylenebis[4-isocyanato- Benzene, 1,1'-methylenebis[4-isocyanato- FREE ISOCYANATES	ACGIH	TWA	0.005 ppm	
	OSHA	CEIL	0.2 mg/m3	
	Manufacturer determined	TWA	0.005 ppm	
FREE ISOCYANATES	Manufacturer determined	STEL	0.02 ppm	

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>ODOR, COLOR, GRADE:</b>	Brown with earthy odor
<b>GENERAL PHYSICAL FORM:</b>	Liquid
<b>AUTOIGNITION TEMPERATURE:</b>	No Data Available
<b>FLASH POINT:</b>	>=220 °C [Test Method: Closed Cup]
<b>BOILING POINT:</b>	330 °C
<b>SPECIFIC GRAVITY:</b>	1.22 [Ref Std: WATER=1]
<b>pH:</b>	Not Applicable
<b>SOLUBILITY IN WATER:</b>	Negligible
<b>VOLATILE ORGANIC COMPOUNDS:</b>	< 1 % weight
<b>VOC LESS H2O &amp; EXEMPT SOLVENTS:</b>	< 1 g/l

**SECTION 10 – STABILITY AND REACTIVITY**

**STABILITY:** Stable.

**MATERIALS AND CONDITIONS TO AVOID:**

**10.1 CONDITIONS TO AVOID:** Heat

**10.2 MATERIALS TO AVOID:** Alcohols, Amines, Strong acids, Strong bases, Water

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization may occur.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS**

<b>SUBSTANCE</b>	<b>CONDITION</b>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Cyanide	During Combustion
Oxides of Nitrogen	During Combustion

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Contact 3M Building and Commercial Services Division, 3M Center, St. Paul, MN 55144-1000.

**Emergency Phone:** 1-800-364-3577 or (651) 737-6501 (24 hrs.).

**SECTION 12 – ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:** Not determined.

**CHEMICAL FATE INFORMATION:** Not determined.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** Cure (harden, set, or react) the product according to product instructions. Dispose of completely cured (or polymerized) wastes in a sanitary landfill.

**EPA HAZARDOUS WASTE NUMBER (RCRA):** D003 (Reactive)

Since regulations vary, consult applicable regulations or authorities before disposal.

**SECTION 14 – TRANSPORT INFORMATION**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

**SECTION 15 – REGULATORY INFORMATION****US FEDERAL REGULATIONS**

Contact 3M for more information.

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

<b>INGREDIENT</b>	<b>C.A.S. NO</b>	<b>% BY WT</b>
POLYMETHYLENE POLYPHENYLENE ISOCYANATE	9016-87-9	60 - 100 (typically 100)

**STATE REGULATIONS**

Contact 3M for more information.

**CHEMICAL INVENTORIES**

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**INTERNATIONAL REGULATIONS**

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This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**SECTION 16 – OTHER INFORMATION**

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