



MATERIAL SAFETY DATA SHEET

P-F401 (HIGH TEMP. FLUID-LOSS POWDER)

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Substance key: 000000010973
Version : 1 - 1 / USA

Revision Date: 11/10/2004
Date of printing :07/29/2005

Section 01 - Product Information

Identification of the company: PETROCHEM USA, INC.
4111-D N.W. 132 Street
Opa-Locka, FL. 33054 USA
Telephone No.: 305-685-8282

EMERGENCY CONTACT: CHEMTREC
1-800-424-9300 (International 1-703-527-3887 – Collect Calls accepted)

Trade name: P-F401
Synonyms: Product Has No Synonyms
Primary product use: Borehole cementing
Chemical family: Proprietary Blend

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Particulates Not Otherwise Regulated (PNOR)		> 1 %
Tert-Butanol	75-65-0	< 4 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation: yes
Skin contact: yes
Eye contact: yes
Ingestion: no
Skin absorption: no

Health effects of exposure:

Particulates Not Otherwise Regulated (PNOR)
This product is considered as Particulates Not Otherwise Regulated (PNOR). May cause local irritation of eyes, nose, throat, and lungs.

Tert-butanol (75-65-0)
Excessive exposure may cause irritation to eyes, skin, and throat, headache, nausea, fatigue, and dizziness.

Known effects on other illnesses: No known effects on other illnesses for this product.

Listed carcinogen: IARC: No



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NTP: No
OSHA: No
Other: No

HMIS:

Health: 1

Flammability: 1

Reactivity: 0

Personal protection: D

Section 04 - First aid measures

After inhalation:

If irritation of nose or throat develops from exposure to fumes, move away from source of exposure and into fresh air. If irritation develops, get medical attention.

After contact with skin:

Remove contaminated clothing without delay. Immediately wash the skin with soap and water for at least 15 minutes under a safety shower. If redness or skin irritation occurs, seek medical attention.

After contact with eyes:

Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:

If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:

None known.

Section 05 - Fire fighting measures

Flashpoint: Not applicable

Lower explosion limit: Not applicable

Upper explosion limit: Not applicable

Self ignition: not determined

Ignition temperature: Not applicable

Hazardous combustion products:

In case of fires, hazardous combustion gases are formed:
Nitrogen oxides (NO_x)
Sulphur dioxide (SO₂)

Extinguishing media: water spray jet
foam
sand
carbon dioxide
dry powder

Special fire fighting procedure:

Wear positive pressure self-contained breathing apparatus (SCBA) and full protective equipment.

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Unusual fire and explosion hazards:

Emits toxic and corrosive fumes under fire conditions. Fine powder may present dust explosion hazard. Maintain good housekeeping for control of dust. Ground all containers when transferring to avoid static charges.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

sweep or vacuum spilled material. place in a disposable container. use care to avoid dust generation. eliminate ignition sources. wet material will become very slippery and form swollen granules.

Section 07 - Handling and storage

Advice on safe handling:

Keep containers closed when not in use. Avoid getting on skin or in eyes when handling product. Avoid breathing dust. Use with adequate ventilation. Store in a dry area.

Further info on storage conditions:

Store in original container.
Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		5 mg/m3
PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		15 mg/m3
PARTICLES (INSOLUBLE OR POORLY SOLUBLE) NOT OTHERWISE SPECIFIED, RESPIRABLE PARTICLES		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		3 mg/m3
PARTICLES (INSOLUBLE OR POORLY SOLUBLE) NOT OTHERWISE SPECIFIED, INHALABLE PARTICLES		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		10 mg/m3
TERT-BUTANOL	75-65-0	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):	100 ppm	
TERT-BUTYL ALCOHOL	75-65-0	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):	100 ppm	300 mg/m3
TERT-BUTYL ALCOHOL	75-65-0	US OSHA Table Z-	Short Term	150 ppm	450 mg/m3

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		1-A Data	Exposure Limit (STEL):		
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Respiratory protection:	If airborne concentrations pose a health hazard, become irritating or exceed recommended limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements under 29 CFR 1910.134
Hand protection:	Butyl Rubber.
Eye protection:	Safety glasses or chemical splash goggles.
Other protective equipment:	Protective clothing to minimize skin contact should be worn. Chemically resistant safety shoes. Wash contaminated clothing with soap and water and dry before reuse. Safety showers and eyewash stations should be provided in all areas where this material is handled.
Advice on system design:	Local ventilation recommended - mechanical ventilation may be used.
IDLH:	Not Determined

Section 09 - Physical and chemical properties

Form:	solid
Color:	white to light yellow
Odor:	slight, original odor
pH:	6 - 8 (20 °C, 10 g/l)
Solubility in water:	> 200 g/l (20 °C)
Soluble in ... :	fat
Density:	not determined
Melting point :	not determined
Boiling temperature :	not determined
Vapor pressure:	not determined
Bulk density:	300 - 400 kg/m ³
Relative vapor density:	Not applicable
Partitioning coef. octanol/water:	not determined
Viscosity / (kinematic):	not determined
Further information:	The product is hygroscopic.

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Section 10 - Stability and reactivity

Thermal decomposition:	No decomposition up to 260 °C.
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	None known.

Section 11 - Toxicological information

Product information:	
Acute oral toxicity:	LD50 > 2,000 mg/kg (rat) Method: OECD 401
Acute inhalation toxicity:	not determined
Acute dermal toxicity:	LD50 > 2,000 mg/kg (rat) Source: Analogy
Skin irritation:	Non-irritating (rabbit)
Eye irritation:	Non-irritating (rabbit)

Section 12 - Ecological information

Product information:	
Biodegradation:	< 10 % Method: OECD 301 B
Fish toxicity:	LC50 > 100 mg/l (96 h, zebra fish) Method: OECD 203
Daphnia toxicity:	EC50 > 1,000 mg/l (48 h, Artemia salina) Source: Analogy
Algae toxicity:	EC50 830 mg/l (72 h, Skeletonema costatum)
Bacteria toxicity:	> 1,000 mg/l (Ps. putida growth) Source: Analogy
Dissolved organic carbon (DOC):	454 mg/g
Chemical oxygen demand (COD):	1,337 mg/g

Section 13 - Disposal considerations

Waste disposal information:
Recommended disposal is by incineration in approved facilities.



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RCRA hazardous waste:

No -- Not as sold.
RCRA number: NONE

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	no

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Component	CAS-no. (Trade secret no.)	Concentration
Tert-Butanol	75-65-0	< 4 %

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Remarks: Not Available

FDA:

This product is not registered with the FDA.



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Section 16 - Other information

Other precautions:

Store away from heat, sparks and flame. Avoid contact with eyes, skin, and clothing. Avoid breathing dust or vapor. Do not take internally. Keep container closed when not in use. Always use with adequate ventilation. Wash thoroughly after handling.

Label information:

CAUTION!

MAY CAUSE IRRITATION TO EYES AND SKIN MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT.

Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wear proper protective equipment. Keep container closed when not in use. Use with ventilation and/or respiratory protection to keep exposure to a minimum. Wash thoroughly after handling.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and seek medical attention.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.