



# **Technol 403M**

## **Diesel Fuel Borne Catalyst**

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### **Product Description Sheet**

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Reliable Diesel Particulate Filter  
Regeneration – Lower Soot Oxidation  
Temperatures – Enhanced DPF  
Performance – Reduced Engine Out  
Emissions - Increased Power – Improved  
Detergency, Lubricity, and Stability -  
Water Shedding, and Corrosion protection.

**TECHNOL 403M Diesel Fuel Borne Catalyst** is an EPA-register, advanced multifunctional diesel additive containing a metallic combustion catalyst. This product provides for reliable regeneration performance of diesel particulate filters (DPF), while maintaining fuel efficiency.

**TECHNOL 403M Diesel Fuel Borne Catalyst** is formulated for direct application to either the bulk fuel supply, or the vehicle onboard fuel tank. Consistent and continued use of this product will enable the proper maintenance of diesel particulate emission control and system performance, improve power and fuel efficiency, reduce sludge and corrosion as well as improve lubricity.

**TECHNOL 403M Diesel Fuel Borne Catalyst** delivers an effective dosage of the combustion catalyst that reduces soot, smoke and gaseous emissions from engine exhaust, and is designed for application with all types of DPFs and oxidizers. This

product raises Cetane by **up to 5 numbers**. **TECHNOL 403M Diesel Fuel Borne Catalyst** contains active catalysts in a combustible hydrocarbon base. To maintain peak catalytic activity, it should not be contaminated with foreign matter or exposed to temperatures in excess of 40°C (104°F) or light for prolonged periods. Normal precautions should be taken as when handling any fuel additive, chemical, or industrial product. Please refer to the product's Material Safety Data Sheet for further information.

Look for this label:



Or contact your Technol Sales Representative for more information and details at  
Telephone (800) 645-4033  
Email [info@technol.com](mailto:info@technol.com)



# Technol 403M

## Diesel Fuel Borne Catalyst for Particulate Filters

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### **Bulleled Highlights**

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- Reduces engine-out particulate matter and gaseous emissions
- Raises fuel Cetane by up to 5 numbers
- Improves performance and durability of Diesel Particulate Filters (DPF)
- Maximizes diesel particulate filter regeneration
- Controls after treatment system back pressure
- Raises Cetane number improving combustion and overall engine performance
- Low NO<sub>2</sub> emission levels
- Improves lubricity of low / ultra-low sulfur diesel fuel by 12%
- Disperses sludge and cleans fuel system
- EPA-registered and approved

*Used By:*

***Diesel Fuel Generators ▲ Mining Operations ▲ Rail Operations***  
***EPA Approval #1642-20014 for both on-road and off-road use.***



# **Technol 403M**

## **Diesel Fuel Borne Catalyst**

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### **Technical Data Sheet**

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#### **BENEFITS**

TECHNOL 403M is an EPA-registered, advanced multifunctional diesel additive containing a metallic combustion catalyst. TECHNOL 403M fuel-borne catalyst provides for reliable regeneration performance of diesel particulate filters (DPF), while maintaining fuel efficiency. TECHNOL 403M is formulated for direct application to either the bulk fuel supply, or the vehicle onboard fuel tank. Use of TECHNOL 403M will enable the proper maintenance of diesel particulate emission control and system performance, improve power and fuel efficiency, reduce sludge and corrosion as well as improve lubricity. TECHNOL 403M delivers an effective dosage of the combustion catalyst that reduces soot, smoke and gaseous emissions from engine exhaust, and is designed for application with all types of DPFs and oxidizers and raises Cetane by **up to 5 numbers**.

#### **APPLICATION**

TECHNOL 403M is designed for direct application to bulk or onboard fuel tanks of vehicles equipped with diesel particulate filters. The product is generally compatible with other additives, diluents, and biofuels. For emission reduction and fuel economy improvement, the typical recommended dosage is 1 quart per 125 gallons of fuel. Double dosage for difficult, lower duty-cycle applications is safe and effective.

#### **STORAGE & HANDLING**

TECHNOL 403M contains active catalysts in a combustible hydrocarbon base. To maintain peak catalytic activity, it should not be contaminated with foreign matter or exposed to temperatures in excess of 40°C (104°F) or light for prolonged periods. Normal precautions should be taken as when handling any fuel additive or industrial product. Please refer to the MSDS for further information.

#### **TYPICAL PROPERTIES**

##### **Appearance:**

Thin amber liquid with solvent odor

Specific Gravity (25°C):

0.88 typical

Flash Point:

142°F Min

Pour Point:

-40°F Typical

Active Catalyst @ 1:500:

15 PPM

#### **AVAILABILITY**

TECHNOL 403M is available in:

- Quart bottles packed 12 per case (treats up to 1,500 gallons of Diesel Fuel)
- 54-gallon steel drums (treats up to 27,000 gallons of Diesel Fuel).

*Please note: This product is in full compliance with mandated Low Sulfur requirements and will not contribute towards fuel Sulfur content.*



# 403M Diesel Fuel Borne Catalyst Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Rules & Regulations  
Revision: 08/03/2015 Issued: 04/01/2012 Supersedes: 04/01/2014

## SECTION 1.

### PRODUCT AND COMPANY IDENTIFICATION

PRODUCT FORM: Liquid Substance  
 TRADE NAME: **Technol 403M Diesel Borne Catalyst**  
 CHEMICAL NAME: Proprietary mixture of petroleum distillates  
 COMPANY: Technol Fuel Conditioners, Inc.  
 145 Wyckoff Road  
 Eatontown, NJ 07724  
 Phone: 1.800.645.4033

EPA REGISTRATION: #1642-20014 - Approved for On-Road and Off-Road Fuel Consumption  
 EMERGENCY PHONE: Chemtrec: 1.800.424.9300 - within USA and Canada  
 Chemtrec: 1.703.527.3887 - outside USA and Canada

## SECTION 2.

### HAZARDS IDENTIFICATION

GHS SIGNAL WORD: **WARNING!**

GHS HAZARD PICTOGRAMS:



GHS CLASSIFICATIONS:

PHYSICAL: H227: Combustible liquid  
 HEALTH: H302: Harmful if swallowed  
 H312: Harmful in contact with skin  
 H320: Can cause eye irritation  
 H336: May cause drowsiness or dizziness  
 H373: May cause damage to organs through prolonged or repeated exposure  
 ENVIRONMENTAL: H402: Harmful to aquatic life

GHS PRECAUTIONARY STATEMENTS:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233: Keep container tightly closed.  
 P261: Avoid breathing dust/fumes/gas/mist/vapors/spray [As modified by IV ATP].  
 P262: Do not get in eyes, on skin, or on clothing.  
 P273: Avoid release into the environment.  
 P301+P331: IF SWALLOWED, Do NOT induce vomiting.  
 P410+P411: Protect from sunlight. Store at temperatures between 45°F [7.2°C] and 85°F [29.4°C].

## SECTION 3.

### COMPOSITION AND INGREDIENTS INFORMATION

Chemical Name	Hazard Date	% By Weight	CAS Number	SARA 311	SARA 312	SARA 313
Aromatic Naphtha	Not Available	15% - 30%	64742-94-5	No	No	No
Kerosene	Not Available	60% - 80%	8008-20-6	No	No	No



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### SECTION 4.

### FIRST AID MEASURES

- INHALATION:** Overexposure can cause dizziness, lack of coordination, and breathing complications, unlikely to occur under normal usage conditions. Handlers should always wear a self-contained breathing apparatus in the positive mode with a full face-piece due to the likelihood of fumes, smoke, and hazardous component decomposition. Remove to fresh air and deploy artificial respiration if not breathing. Get medical attention.
- SKIN CONTACT:** Can cause irritation of exposed skin due to defatting of skin tissue. Handlers should always wear rubber gloves. Wash exposed skin vigorously with general soap and water. Get medical attention if skin irritation persists.
- EYE CONTACT:** Can cause irritation of exposed eye tissue. Handlers should always wear splash-proof goggles. Rinse eyes with cool flowing water for at least 15 minutes and get immediate medical attention.
- INGESTION:** Can cause irritation of the gastrointestinal tract and possible fatal kidney liver damage. DO NOT INDUCE VOMITING. Deploy artificial respiration if not breathing. Get immediate medical attention.

### SECTION 5.

### FIREFIGHTING MEASURES

Special Hazards and Procedures:

This product poses no unusual fire fighting problems. It will burn if involved in a fire. Oxides of sulfur (SO<sub>2</sub>) will be given off while burning. Combustion may produce oxides of carbon and oxides of calcium. Water may be used to cool fire-exposed containers and structures but is not a suitable extinguishing media.

Protective Equipment:

As in any fire, firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained goggled breathing apparatus, protective gloves and clothing.

Extinguishing Media:

Dry chemical, CO<sub>2</sub> and foam are suitable. Water jets or any water-based fluid are not suitable. Closed containers may be cooled with water. Treat large fires as an oil fire. Oil will float on water and can cause fire to spread. Heat from fire can generate flammable vapor.

### SECTION 6.

### ACCIDENTAL RELEASE PRECAUTIONS

- PERSONAL:** Wearing suitable protective equipment, eliminate sources of ignition and open nearby windows to ventilate the problem area.
- ENVIRONMENTAL:** Product has very low solubility in water. Prevent from entering sewer system, surface water or soil.
- FOR SPILL CLEAN-UP:** Shut off leak and dike up large spills. Absorb with an inert material such as sand, soil or vermiculite. Sweep up absorbent and dispose in accordance with regulatory requirements.

### SECTION 7.

### PRODUCT HANDLING & STORAGE

- HANDLING:** This product is best stored in its original container. Steel or HDPE containers are recommended replacements and electrically bond and ground all containers and equipment. Avoid contact with eyes, skin and clothing. Avoid breathing vapors, aerosol and mists. Use with adequate ventilation and wash thoroughly after handling. Never use pressure to empty drums.
- STORAGE:** Full or partially-filled containers should always be kept upright and away from strong oxidizing agents. This product will pump down to 10°F [-12.2°C]. Nonetheless, it is recommended that full or partially-filled containers be stored in a cool dry place between 45° - 85°F [7.2° - 29.4°C]. Store in original container if possible, and keep all chemical containers away from direct sunlight and tightly closed when not in use.



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### SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**VENTILATION:** None normally required. Use additional ventilation if needed to control vapor concentrations particularly if a mist is generated or fumes from hot material are present.

**RESPIRATORY:** None required if area adequately ventilated. Use appropriate respiratory protection if used in confined areas. If used in an application where a mist may be generated, observe a TWA/PEL of 5 mg/m<sup>3</sup> (OSHA, ACGIH) for a mineral oil mist. Use a respirator with dual organic vapor/mist and particulates cartridge if vapor concentration exceeds permissible exposure limit.

**SKIN PROTECTION:** Use neoprene-type gloves and apron.

**EYE PROTECTION:** Wear chemical safety goggles or a full-plate face shield. Contact lenses should not be worn.

### SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Thin Amber Liquid	Odor:	Solvent Characteristic
Boiling Point:	< 300°F [ $< 148.9^{\circ}\text{C}$ ]	Density at 25°C (gm/cm <sup>3</sup> ):	0.88 Typical
Vapor Pressure:	< 1 @ 20°C (mm Hg)	Vapor density (Air = 1):	< 1
Solubility in Water:	Negligible	Solubility in Organic Solvents:	Soluble
pH:	Not Applicable	Flash point, COC (ASTM D-93):	142°F
Pounds per Gallon:	7.3	Evaporation Rate:	< 1 (Butyl Acetate =1)
Freeze Point:	10°F (-12.2°C)	Volatiles By Volume @ 68°F (20°C):	Not Applicable
Viscosity 80°F:	< 200 SSU	Melting Point:	-40°F typical

### SECTION 10. STABILITY AND REACTIVITY

This product is stable and not subject to hazardous polymerization.

Hazardous Decomposition Products: Oxides of carbon (carbon monoxide and carbon dioxide), oxides of hydrogen (contaminated and hazardous water), and oxides of Nitrogen can occur when exposed to heat at 350°F (176.7°C).

Incompatible materials: Strong oxidizers such as hydrogen peroxide, oxidizing chlorine, and bromine compounds (e.g. chlorine bleach) and chromic acid should be avoided.

Conditions to avoid: Extreme heat and sources of fire or ignition. Decomposition can occur at 350°F.

### SECTION 11. TOXICOLOGICAL INFORMATION

**ROUTES OF EXPOSURE:** Eye contact, skin contact, inhalation of vapors, and ingestion.

**ACUTE TOXICITY:** The handling procedures and safety precautions in this SDS should be followed to minimize employee exposure.

**CHRONIC EFFECTS:** Can cause eye, skin and gastrointestinal irritation. Irritation of tissue, defatting of skin, gastrointestinal irritation, Kidney and Liver damage.

**SYMPTOMS:** Irritation of exposed tissue and organs, blurriness of vision, dizziness, fainting, and lack of physical coordination.

**LD50:** Not Established.

**NTP/IARC/OSHA:** This product and none of its components are listed as a carcinogens, mutagens, or teratogens.

### SECTION 12. ECOLOGICAL INFORMATION

No specific aquatic data is available. This product should be kept away from all bodies of water, and prevented from entering sewer streams. It may be necessary to extract soil where large spills have occurred. No specific Bioaccumulation data is available. No specific Terrain Migration data is available.



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## SECTION 13. DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** This product should be incinerated as a waste oil, at a certified and registered waste disposal site, in compliance with all federal, state and local regulations and requirements.

**RCRA STATUS OF UNUSED PRODUCT:** Dispose of this product in permitted hazardous wastes sites. Keep this product away lakes, streams, rivers, ponds, sewer systems, and any other body of water.

## SECTION 14. TRANSPORTATION INFORMATION

### US DOT Classification:



**NA 1993, Combustible Liquid, NOS** (placard required on ground carriers): not regulated if shipped or transported in containers less than 450 liters (119 Gallons US).

Proper Shipping Name: Proprietary mixture of petroleum derivatives  
Shipping Class: 65 (regardless of package or container size)  
Packing Group: III (regardless of package or container size)  
NMFC Rating: 155250-02



**UN 1993, Flammable Liquid, NOS:** If shipped in containers of 450 liters or more (120 Gallons US or more), by air or by sea.

Proper Shipping Name: Petroleum Distillates, NOS  
Shipping Class: 65 (regardless of package or container size)  
Packing Group: III (regardless of package or container size)

### IMDG Classification:

This product is not known to be a marine pollutant according to the International Marine Dangerous Goods Codes, however it can cause harm to aquatic life.

### ICAO Classification:

Proper Shipping Name: Petroleum Distillates, NOS  
Class: 3  
UN/NA ID #: NA 1993  
Packing Group: III

### IBC Classification:

Guidance on transporting this product in bulk by ocean freight can be obtained from Annex II of Marpol 73/78 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

### All Transportation Methods:

Keep packages and containers upright and tightly sealed at all time during transportation. Do not expose packages and containers to direct sunlight, extreme heat, or any source of ignition. All product should be transported in their original packaging and containers. Rubber, plastic or other lined containers should not be used.

## SECTION 15. REGULATORY INFORMATION

There are no other national and/or regional statutes or information on this product, including OSHA, Department of Transportation, Environmental Protection Agency, Consumer Product Safety Commission, and Right-To-Know Act not previously addressed in this document.

Chemical Name \_\_\_\_\_ CAS # \_\_\_\_\_ NJ TS Number \_\_\_\_\_

None



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### SECTION 16.

### OTHER INFORMATION

This product has not been tested in long term, chronic exposure, therefore, the handling procedures and safety precautions in the SDS should be followed to minimize employee exposure.

Label Information for the United States: CAUTION: May cause skin and eye irritation. Do not swallow. Avoid eye and skin contact. Wash thoroughly after handling. Avoid contact with clothing. Wash clothing before reuse. Keep out of reach of children. Keep containers tightly closed when not in use. Avoid breathing mists or sprays of this product or its solutions.

#### EMPLOYER RESPONSIBILITY

Employers must ensure that these Material Safety Data Sheets are readily accessible and available to all their employees responsible for the storage, handling, and manipulation of this product. This can be done in many ways, such as organizing all chemicals SDS in freely available binders kept in areas where the chemicals are stored, or on computers the handling employees have access to without the inconvenience of leaving the work or storage area. We strongly recommend the binder method which keeps them available in the event of a power outage or other emergency inhibiting computer use. Employers may want to consider designating two persons (primary and backup) responsible for obtaining and maintaining SDS records. If the employer does not have a particular SDS for a chemical commodity, the employer or responsible designate should contact the chemical manufacturer to obtain one prior to product use.

#### REFERENCES

OSHA, 29 CFR 1910.1200(g) and Appendix D.

United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 3rd Revised Edition, United Nations, 2009. These references and other information related to the revised Hazard Communication Standard can be found on OSHA's Hazard Communication Safety and Health Topics web site at: <http://www.osha.gov/dsg/hazcom/index.html>.

#### DISCLAIMER

This brief provides a general overview of the Material Safety Data Sheet requirements as mandated by the Hazard Communication Standard 29 CFR 1910.1200(g) and Appendix D of 29 CFR 1910.1200. It does not alter or determine compliance responsibilities in the standard or the Occupational Safety and Health Act of 1970. Since interpretations and enforcement policy may change over time, the reader should consult current OSHA interpretations, decisions by the Occupational Safety and Health Review Commission, and the courts for additional guidance on OSHA compliance requirement. Please note that states with OSHA-approved state plans may have additional requirements for chemical safety data sheets, outside of those outlined above. For more information on those standards, please visit: <http://www.osha.gov/dcsp/osp/statestandards.html>.

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# 403M Diesel Fuel Borne Catalyst Application Chart

This chart specifies the number of containers or ounces needed for the amount of fuel to be conditioned. Container volumes are maximized in accordance with a 40"x40" skid. To determine ounces needed when container factors are shown, multiply the factor times the Container Ozs.

Container Ozs:	8oz. = 8	Quart = 32	Gal. = 128	Pail = 640	Drum = 6,912	Tote = 35,200			
Sizes / Skid Max:	→	YES 480	→	YES 20	YES 216	YES 275			
Application:	Initial Maintain	Initial Maintain	Initial Maintain	Initial Maintain	Initial Maintain	Initial Maintain			
Ratio:	1: 250 500	250 500	250 500	250 500	250 500	250 500			
		<u>Bottles Needed</u>		<u>Pails Needed</u>		<u>Drums Needed</u>		<u>Totes Needed</u>	
G 50		0.2	←	←	←	←	←	←	←
A 100		0.4	←	←	←	←	←	←	←
L 200		0.8	←	←	←	←	←	←	←
L 500		2	1	0.4	0.2	←	←	←	←
L 1,000		4	2	0.8	0.4	←	←	←	←
O 2,000		8	4	1.6	0.8	←	←	←	←
N 3,000		12	6	2.4	1.2	0.2	←	←	←
S 4,000		16	8	3.2	1.6	0.3	←	←	←
O 5,000		20	10	4	2.0	0.4	←	←	←
O 7,500		30	15	6	3.0	0.6	0.3	←	←
F 8,000		32	16	6	3.2	0.6	0.3	←	←
F 9,000		36	18	7	3.6	0.7	0.3	←	←
F 10,000		40	20	8	4	0.7	0.4	←	←
U 12,000		48	24	10	5	0.9	0.4	←	←
E 14,000		56	28	11	6	1.0	0.5	0.2	←
L 15,000		60	30	12	6	1.1	0.6	0.2	←
L 20,000		80	40	16	8	1.5	0.7	0.3	←
T 25,000		100	50	20	10	1.9	0.9	0.4	←
O 45,000		180	90	→	18	3	2	0.7	0.3
O 75,000		300	150	→	→	6	3	1.1	0.5
B 80,000		320	160	→	→	6	3	1.2	0.6
E 85,000		340	170	→	→	6	3	1.2	0.6
O 89,990		360	180	→	→	7	3	1.3	0.7
C 98,000		392	196	→	→	7	4	1.4	0.7
O 100,000		400	200	→	→	7	4	1.5	0.7
N 110,000		440	220	→	→	8	4	1.6	0.8
D 115,000		460	230	→	→	9	4	1.7	0.8
I 119,900		480	240	→	→	9	4	1.7	0.9
T 135,000		→	270	→	→	10	5	2	1.0
I 159,500		→	319	→	→	12	6	2	1.2
O 200,000		→	400	→	→	15	7	3	1.5
N 240,000		→	480	→	→	18	9	3	1.7
E 320,000		→	→	→	→	24	12	5	2
D 520,000		→	→	→	→	39	19	8	4
1,000,000		→	→	→	→	→	37	15	7

**Packaging & Shipping** : 12 8oz bottles/case (where available) 60 cases per skid; 12 quart bottles/case (where available) 40 cases per skid, 4 gallons/case (where available) 40 cases per skid, 20 pails/skid, 4 drums/skid, one 275-gallon HDPE tote bin per skid. All containers and skids are non-returnable. Please recycle in accordance with local statutes. When seeing the arrow (→) we recommend the next larger size container.