



***Technol*[®] 050**

Cold Flow Improver

Prevents & Melts Gelled Fuel and Ice

Technol 050 is a highly concentrated, unique severe cold climate distillate Cold Flow Improver. Cold Filter Plug Point (CFPP) is lowered by up to 30°F, and the Pour Point by up to 50°F. **Technol 050** when used proactively, before the onset of cold weather at the ratio of 1:2,000 will keep fuel flowing by preventing the formation of gelled fuel and ice blockages.

If you are presently experiencing these blockages apply **Technol 050** at the ratio of 1:200 to melt gelled fuel and ice, once melted **Technol 050** will act as an “anti-freeze” preventing both the fuel and water from re-gelling and re-freezing. Be sure to protect your fuel and fuel system every time it is refueled by applying **Technol 050** until warm temperatures arrive. Anti-gel agents permit fuel to flow smoothly even under the most extreme cold climate conditions. Anti-gel agents (Cold Flow Improvers) are wax crystal modifiers that limit the size and modify the shape of wax crystals formed at temperatures far below the cloud point. These wax crystals are both smaller and less cohesive than the larger crystals that form an impervious mass that cause fuel blockages in unconditioned fuel.

These conditions permit the operation of vehicles, equipment, and boilers at substantially lower ambient temperatures.

Usage Directions

For complete directions see the Technical Data Sheet.

To prevent gelling fuel and ice.

Initial Application;

32oz for up to 250 gallons.

1 gallon for every 1,000 gallons of fuel.

Maintenance Application;

16oz for up to 250 gallons.

1 gallon for every 2,000 gallons of fuel.

To melt gelled fuel and ice.

Drop the filter, remove any ice and gel, add 50/50 mix of fuel & 050 replace filter, or replace the filter with a new one.

Apply to fuel tank at the ratio of
1:200 gallons.

Wait 15-20 minutes for melting to occur
before starting.

*Can be used @ 1:100 in
extreme conditions.*

Technol 050 may be applied directly to bulk storage or fuel tanks before the onset of cold weather. It is recommended to apply before refueling to ensure proper mixing and distribution.

Technol 050 is readily available in:

32oz Bottles packed 12 per case

5-gallon Closed-Head Steel Pails

54-gallon Closed-Head Steel Drums

275- & 330-gallon Totes for bulk applications



Technol 050

Anti-Gel, Anti-Ice Cold Flow Improver

Bulleted Highlights

- Lowers Cold Filter Plug Point by up to 30°F
- Lowers Pour Point by up to 50°F
- Compatible with all Distillate fuels
- Permits smooth-flowing fuel under the most extreme cold climate conditions
- Melts and prevents gelled fuel and ice in tanks, fuel lines, and filter
- Reducing the fuel's tendency to plug lines and filters
- Eliminates the need to blend with expensive Kerosene

Homeowners ▲ Fuel Oil Dealers ▲ Conditions up to 2,000 Gallons

EPA-approved for On-road and Off-road consumption



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Technical Data Sheet

For best results to PREVENT gelled fuel and ice.

For fuel system induced cold flow problems.

- Before cold temperatures arrive, check for and remove any free water layer at the bottom of your tank and dispose of properly.
- Replace the fuel filter. A new filter will not contain any water or sludge from the previous heating season which may lead to cold flow problems.
- Apply **Technol 050** as described below.

For Cold Flow issues inherit in fuel.

- Apply proactively, pour **Technol 050** directly into the tank before the onset of cold weather and then refuel the tank to insure proper mixing and distribution.
- If your not going to add fuel to your tank but want Cold Flow Protection, pour directly into the tank before the onset of cold weather , **Technol 050** will mix with the fuel on its own but will take longer to so do.

Usage ratios

Initial applications

apply at the ratio of
32ozs to every 250 gallons of fuel,
or
One gallon to every 1,000 gallons of fuel.

Maintenance applications

apply at the ratio of
16ozs to every 250 gallons of fuel,
or
one gallon to every 2,000 gallons of fuel.

Steps recommended to MELT gelled fuel and ice.

- If your fuel filter is outside, drop the filter, add a 50/50 mix of **Technol 050** and fuel replace the filter and wait 15-20 minutes for melting to occur, or replace with a new filter.
- Pour **Technol 050** directly into the fuel tank at the ratio of *32ozs to every 50 gallons of fuel*, or one gallon of **Technol 050** to every 200 gallons of fuel. Wait 15-20 minutes for melting to occur. The time may vary depending on the amount of the gelled fuel and/or ice. This is why being proactive is so important in preventing downtime.

Technol 050 BENEFITS

- **Melts** gelled fuel and ice @1:200
- **Prevents** gelled fuel and ice @1:2000
- Lowers fuel Pour Point by up to 50°F
- Lowers fuel Cold Filter Plug Point (CFPP) by as much as 30°F
- Permits smooth flowing fuel under the most extreme cold-climate conditions.

PHYSICAL & CHEMICAL PROPERTIES

Flash Point: 135°F Open cup
Appearance: Thin, Amber Liquid
Special precautions: Combustible Liquid
Specific Gravity @25°C (77°F): 0.90



050 Cold Flow Improver

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Rules & Regulations

Revision: 08/07/2015 Issued: 01/01/1993 Supersedes: 03/01/2006

SECTION 1.

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT FORM: Liquid Substance
 TRADE NAME: **Technol 050 Cold Flow Improver**
 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: #1642-0003 - 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 | 20% - 50% | 64742-94-5 | NO | NO | NOT AVAILABLE |
| Naphthalene | May, 1986 | 2% - 4% | 91-20-3 | NO | NO | YES |
| Pseudocumene | October, 1986 | 0% - 1% | 95-63-6 | NO | NO | YES |
| Glycol Ether | August, 1992 | 30% - 50% | 111-76-2 | NO | NO | YES |



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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. <u>DO NOT INDUCE VOMITING.</u> 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 (SO₂) 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, CO₂ 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/m³ (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: | Camphor Characteristic |
| Boiling Point: | 350°F [176.6°C] | Density at 25°C (gm/cm ³): | 0.90 Typical |
| Vapor Pressure: | 10mm @ 20°C (mm Hg) | Vapor density (Air = 1): | 5.2 (Estimated) |
| Solubility in Water: | Negligible | Solubility in Organic Solvents: | Soluble |
| pH: | Not Applicable | Flash point, COC (ASTM D-93): | 135°F (57.2°C) |
| Pounds per Gallon: | 7.5 | Evaporation Rate: | < 1 (Butyl Acetate =1) |
| Freeze Point: | 10°F (-12.2°C) | Volatiles By Volume @ 68°F (20°C): | Nil |

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 (176.6°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.

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 (placard required on ground carriers): 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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050 Cold Flow Improver 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 less than 1, 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: 1000 2,000 | 1,000 2,000 | 1,000 2,000 | 1,000 2,000 | 1,000 2,000 | 1,000 2,000 | | | |
| | | Bottles Needed | | Pails Needed | | Drums Needed | | Totes Needed | |
| G | 50 | ← | ← | ← | ← | ← | ← | ← | ← |
| A | 100 | ← | ← | ← | ← | ← | ← | ← | ← |
| L | 200 | 0.8 | ← | ← | ← | ← | ← | ← | ← |
| L | 500 | 2 | 1 | ← | ← | ← | ← | ← | ← |
| O | 1,000 | 4 | 2 | 0.2 | ← | ← | ← | ← | ← |
| N | 2,000 | 8 | 4 | 0.4 | 0.2 | ← | ← | ← | ← |
| S | 3,000 | 12 | 6 | 0.6 | 0.3 | ← | ← | ← | ← |
| O | 4,000 | 16 | 8 | 0.8 | 0.4 | ← | ← | ← | ← |
| O | 5,000 | 20 | 10 | 1 | 0.5 | ← | ← | ← | ← |
| F | 7,500 | 30 | 15 | 2 | 0.8 | ← | ← | ← | ← |
| F | 8,000 | 32 | 16 | 2 | 0.8 | ← | ← | ← | ← |
| F | 9,000 | 36 | 18 | 2 | 0.9 | ← | ← | ← | ← |
| U | 10,000 | 40 | 20 | 2 | 1 | ← | ← | ← | ← |
| E | 12,000 | 48 | 24 | 2 | 1 | 0.2 | ← | ← | ← |
| L | 14,000 | 56 | 28 | 3 | 1 | 0.3 | ← | ← | ← |
| L | 15,000 | 60 | 30 | 3 | 2 | 0.3 | ← | ← | ← |
| T | 20,000 | 80 | 40 | 4 | 2 | 0.4 | ← | ← | ← |
| O | 25,000 | 100 | 50 | 5 | 3 | 0.5 | 0.2 | ← | ← |
| O | 45,000 | 180 | 90 | 9 | 5 | 0.8 | 0.4 | ← | ← |
| B | 75,000 | 300 | 150 | 15 | 8 | 1 | 0.7 | 0.3 | ← |
| E | 80,000 | 320 | 160 | 16 | 8 | 1 | 0.7 | 0.3 | ← |
| E | 85,000 | 340 | 170 | 17 | 9 | 2 | 0.8 | 0.3 | ← |
| C | 89,990 | 360 | 180 | 18 | 9 | 2 | 0.8 | 0.3 | ← |
| O | 98,000 | 392 | 196 | 20 | 10 | 2 | 0.9 | 0.4 | ← |
| O | 100,000 | 400 | 200 | 20 | 10 | 2 | 0.9 | 0.4 | ← |
| N | 110,000 | 440 | 220 | → | 11 | 2 | 1 | 0.4 | ← |
| D | 115,000 | 460 | 230 | → | 12 | 2 | 1 | 0.4 | 0.2 |
| I | 119,900 | 480 | 240 | → | 12 | 2 | 1 | 0.4 | 0.2 |
| T | 135,000 | → | 270 | → | 14 | 3 | 1 | 0.5 | 0.2 |
| I | 159,500 | → | 319 | → | 16 | 3 | 1 | 0.6 | 0.2 |
| O | 200,000 | → | 400 | → | 20 | 4 | 2 | 0.7 | 0.3 |
| N | 240,000 | → | 480 | → | → | 4 | 2 | 0.9 | 0.4 |
| E | 320,000 | → | → | → | → | 6 | 3 | 1 | 0.4 |
| D | 520,000 | → | → | → | → | 10 | 5 | 2 | 0.6 |
| | 1,000,000 | → | → | → | → | 19 | 9 | 4 | 0.9 |

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.