



# **Technol<sup>®</sup>**

## **Metal Guard Plus**

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### **Product Description Sheet**

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Whether you own a car, pickup, boat, big rig, or dozer, keeping them in top running order for many years places high demands on the lubrication. Metal to metal internal moving surfaces produce friction, heat, and ultimately wear. This happens even when protected by a pressurized film of lubricating motor oil. Every crankshaft revolution is hampered by heat producing friction and wear which robs power and lessens service life.

**Technol Metal Guard Plus** is an “extreme pressure lubricant” that starts where motor oil along leaves off, by conditioning the metal of your engine, not the oil. This is accomplished by smoothing the microscopic irregularities, cracks, and points of uneven wear on the surface of bearings, pushrods, lifters, the crank, and cam shafts. All internal moving metal parts that oil is pumped to is conditioned. An oiled smoother surface is slipperier and creates less friction than a non-smooth oiled surface, the damaging amounts and effects of friction, heat build up, and wear are significantly reduced which extends component service life and lessens maintenance costs and down time.

To make matters worse, moving parts are further hindered by the build up of sludge, gum and varnish due to oil break down or a lack of maintenance.

**Technol Metal Guard Plus** breaks down this sludge build up so it can be drained during an oil change, any oil that comes out clean is not cleaning your engine. The dirty oil is being deposited as a sludge build up within the engine, and left unchecked can slow or clog oil returns and create sticky lifters.

**Technol Metal Guard Plus** is exclusively formulated to blend with petroleum and synthetic oils, gear lubes, transmission fluids and grease. It contains no solids to retard penetration, and will not cause any material build up or change even the finest of machine tolerances.

#### **Benefits**

- Eliminates “dry” starts.
- Prolongs the life of the engine, transmission, gear box, differential.
- Protects the moving metal parts against heat and friction.
- Increases acceleration, horsepower, torque and performance.
- Penetrates the metal surface to form a polished shield that reduces friction.
- Removes accumulated contaminants, frees-up sticky lifters.

#### **Usage Directions**

##### **Gas & Diesel Engines**

Apply 8ozs. to 4-6 quarts of engine oil at every scheduled oil change.

##### **Automotive Transmissions**

Apply 8ozs. every 12,000 driving miles.

##### **Boats**

Apply 1 8 ounce bottle to 4-6 quarts of engine oil at every oil change.

This product is not recommended for marine transmissions. For lubrication applications over 6 quarts please see our applications chart.



# Super Lubricant Anti-Friction Metal Conditioner

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## Features & Benefits

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- Increases acceleration and horsepower
- Decreases harmful exhaust emissions
- Prolongs engine and transmission life
- Increases fuel economy
- Eliminates “Dry Starts”
- Dissolves engine sludge and varnish build-up, frees up sticky lifters
- Contains no solids or harmful ingredients to void a manufacturer’s warranty
- Reduces heat and friction in engines, transmissions, gear boxes, and differentials

*Used by major industrial companies ▲ Tested by U.S. Government agencies*



# **Technol<sup>®</sup>**

## **Metal Guard Plus**

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### **Technical Data Sheet**

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#### **DESCRIPTION**

Technol Metal Guard Plus is a “super lubricant” that reduces friction by becoming completely absorbed by all metal surfaces and critical moving parts of the engine. Once it penetrates these surfaces, it forms a polished seal that smoothes microscopic cracks, breaks and points of uneven wear.

After cleaning the metal surfaces of accumulated contaminants such as lacquer, sludge and minute metal shavings, the metal pores are penetrated and polished creating a smooth surface seal that reduces friction.

#### **BENEFITS**

- ◆ Reduces friction and heat in engines and transmissions
- ◆ Increases RPM acceleration, torque and horsepower
- ◆ Decreases harmful exhaust emissions
- ◆ Prolongs engine / transmission life
- ◆ Increases fuel economy
- ◆ Eliminates “Dry Starts”
- ◆ Dissolves engine sludge and varnish build-up
- ◆ Contains no solids or harmful ingredients that would void a manufacturer’s warranty.

#### **COMPOSITION**

Technol Metal Guard Plus contains no solids to retard penetration. It will not cause any material to build up or change even the finest of machined tolerances.

Technol Metal Guard Plus is exclusively formulated to blend with petroleum or synthetic oils and lubes. Technol Metal Guard Plus has been tested for quality performance, it is not intended to cure mechanical failures.

#### **APPLICATION**

Technol Metal Guard Plus may be applied directly to engine oil, automatic or manual transmissions, differentials, oil and hydraulic tanks. Normal precautions in the handling of industrial chemicals should be exercised. Skin and eye contact should be avoided. Use only in well-ventilated areas. Keep this and all other chemical products away from children and animals.

#### **PHYSICAL & CHEMICAL PROPERTIES**

##### **Technol Metal Guard Plus:**

MATERIAL IS: Liquid  
APPEARANCE: Amber  
D.O.T.CLASS: Combustible  
FLASH POINT: 140°F (Typical)  
SPEC GRAVITY H<sub>2</sub>O=1): 0.9958 @ 80°F  
POUNDS PER GALLON: 8.295

#### **AVAILABILITY**

Technol Metal Guard Plus is available in;  
  
8 oz bottles,  
5-gallon pails,  
55-gallon drums,  
330-gallon bulk totes, and tank cars.



# Metal Guard Plus

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Rules & Regulations  
Revision: 06/30/2017 Issued: 06/01/2000 Supersedes: 03/01/2006

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT FORM: Liquid Substance  
TRADE NAME: **TECHNOL METAL GUARD PLUS**  
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: NONE - Not applied to fuel  
EMERGENCY PHONE: Chemtrec: 1.800.424.9300 - within USA and Canada  
Chemtrec: 1.703.527.3887 - outside USA and Canada

### SECTION 2. HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

#### GHS Classification in Accordance with 29 CFR 1910 ( OSHA HCS):

Physical, Flammable Liquids, 4  
Health, Specific target organ toxicity– Single exposure, 3  
Health, Skin corrosion/irritation, 2  
Health, Aspiration hazard, 1  
Environmental, Hazards to the aquatic environment—Chronic, 1

#### GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

#### GHS HAZARD PICTOGRAMS:



#### GHS Hazardous Statements:

H227-Combustible liquid  
H315-Causes skin irritation  
H336-May cause drowsiness or dizziness  
H304-May be fatal if swallowed and enters airways  
H410-Very toxic to aquatic life with long lasting effects

#### GHS Precautionary Statements:

P210-Keep away from heat/sparks/open flames/hot surfaces. NO SMOKING  
P261-Avoid breathing dust/fume/gas/mist/vapors/spray.  
P273-Avoid release to the environment.  
P302 + P352 –IF ON SKIN: Wash with soap and water  
P304 + 340- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P308+313-IF exposed or concerned: Get medical advice/attention.



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### SECTION 3.

### COMPOSITION AND INGREDIENTS INFORMATION

#### INGREDIENTS:

Cas #	%	Chemical Name
63449-39-8	45-55%	Alkanes, C14-16, chloro
64741-65-7	30-40%	Naphtha, petroleum, heavy alkylate

### 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. **DO NOT INDUCE VOMITING.** Deploy artificial respiration if not breathing. Get immediate medical attention.

Note to Physician: Activated charcoal may be administered

### 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.



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### 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.

### 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:	Amber Liquid	Odor:	Hydrocarbon Characteristic
Boiling Point:	Not Determined	Density at 25°C (gm/cm <sup>3</sup> ):	0.90 Typical
Vapor Pressure:	Not Determined	Vapor density (Air = 1):	< 1
Solubility in Water:	Not Soluble	Solubility in Organic Solvents:	Soluble
pH:	Not Applicable	Flash point, COC (ASTM D-93):	140°F (60°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)	Not Applicable



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### 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.

### 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.

### 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.





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## 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:

IMDG & IATA: UN3082, Environmentally hazardous substance, liquid, nos, (petroleum naphtha, Alkanes C14-16 chloro).  
Marine Pollutant

### ICAO Classification:

Proper Shipping Name:	Flammable liquid, NOS, Petroleum distillates
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 \_\_\_\_\_





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Revision: 06/30/2017 Issued: 06/01/2000 Supersedes: 03/01/2006

### 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 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/dcs/osp/statestandards.html>.

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