I. IDENTIFICATION

PRODUCT NAME PRESTONE® Super Starting Fluid

TYPE Automotive Engine Starting Fluid (Aerosol)

STOCK AS236A

FORMULA 11958-28

II. PHYSICAL DATA

BOILING POINT, 760 mm Hg 95°F

FREEZING POINT less than -30°F

DENSITY (at 68°F) 6.4 lbs/gal

VAPOR DENSITY (Air = 1) 2.6

VAPOR PRESSURE (at 68°F) 305 mm Hg

VOLATILES BY VOLUME 99%

SOLUBILITY IN WATER, by Wgt. 4.5%

EVAPORATION RATE (Butyl Acetate = 1) 23

APPEARANCE AND ODOR Clear liquid, ether odor
## III. HAZARDOUS INGREDIENTS

(includes IARC, NTP, OSHA and ACGIH listed carcinogens greater than 0.1%)

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>%</th>
<th>CAS #</th>
<th>EXPOSURE LIMIT</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl ether</td>
<td>40-60</td>
<td>60-29-7</td>
<td>400 ppm TWA</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500 ppm STEL</td>
<td>(3)</td>
</tr>
<tr>
<td>n-heptane</td>
<td>15-30</td>
<td>142-82-5</td>
<td>400 ppm TWA</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500 ppm STEL</td>
<td>(3)</td>
</tr>
<tr>
<td>Methylcyclohexane</td>
<td>15-30</td>
<td>108-87-2</td>
<td>400 ppm TWA</td>
<td>(3)</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>5-10</td>
<td>124-38-9</td>
<td>10000 ppm TWA</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5000 ppm TWA</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30000 ppm STEL</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**NON-HAZARDOUS INGREDIENTS > 1%**

None

None of the other ingredients is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

The source for exposure limits listed above are:

(1) OSHA Permissible Exposure Limit (effective 9/89)
(2) ACGIH Threshold Limit Value (1988-89 Edition)
(3) Both the OSHA PEL and ACGIH TLV
(4) Recommended by the Manufacturer

## IV. FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT**

Tag Open Cup: Not determined
Pensky-Martens Closed Cup: -49°F

**AEROSOL FLAME EXTENSION**

Greater than 18 inches

**FLASHBACK**

Yes
AEROSOL FIRE PROTECTION LEVEL
   Level 3 Aerosol (NFPA 30B)

FLAMMABLE LIMITS IN AIR, % BY VOLUME
   LOWER:   1.9
   UPPER:   36.0

AUTOIGNITION TEMPERATURE
   320°C

EXTINGUISHING MEDIA
   Foam, alcohol foam, carbon dioxide, and dry chemical. Water may be unsuitable except as cooling medium.

SPECIAL FIRE FIGHTING PROCEDURES
   Use self-contained breathing apparatus. Toxic fumes may be emitted.

UNUSUAL FIRE AND EXPLOSION HAZARDS
   Extremely flammable contents, pressurized containers. Vapors are heavier than air and may travel or be moved by air currents and be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point.

V. HEALTH HAZARD DATA

EFFECTS OF SINGLE OVEREXPOSURE

SWALLOWING
   May cause signs and symptoms of systemic intoxication, with incooordination, blurred vision, headache, analgesia, unconsciousness and respiratory failure due to depression of the central nervous system. Due to high volatility, may rapidly distend the stomach, causing discomfort and may make breathing difficult. May also cause pneumonitis if aspirated.

SKIN ABSORPTION
   Significant absorption not expected.

INHALATION
   Acts as a narcotic or general anesthetic. May cause irritation of the respiratory tract with cough and also signs and symptoms of intoxication, with incoordination, blurred vision, headache, analgesia, unconsciousness, cardiac irregularities, and respiratory failure due to depression of the central nervous system. Breathing high vapor concentrations may cause heart rate irregularities, possibly fatal, particularly in persons with heart disease.

SKIN CONTACT
   May cause mild irritation, experienced as local redness.
EYE CONTACT

Exposure to liquid or high concentrations of vapor may cause irritation, experienced as redness, excess tearing, and possible swelling of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE

Repeated skin exposure can cause cracking and drying. Repeated inhalation may cause loss of appetite, exhaustion, headaches, drowsiness, dizziness, cardiac arrhythmia, central nervous system excitability, and psychic disturbances.

OTHER EFFECTS OF OVEREXPOSURE

May cause albuminuria and polycythemia.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

Because of its irritating and defatting properties, this material may aggravate an existing dermatitis. Existing cardiac conditions may be aggravated if inhaled in high concentrations and may be fatal as a result of serious arrhythmia and cardiac decompensation.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARDS

None currently known.

EMERGENCY AND FIRST AID PROCEDURES

SWALLOWING

Give at least 2 glasses of milk or water if the patient is conscious. Do not induce vomiting. Call a physician immediately.

SKIN

Wash with soap and water.

INHALATION

Remove to fresh air. Give artificial respiration if not breathing. CPR may be required if cardiac arrest occurs. Oxygen may be given if necessary. Call a physician.

EYES

Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention, preferably an ophthalmologist.

NOTES TO PHYSICIAN

May produce arrhythmia, especially in a person with an irritable myocardium. Because of possible arrhythmogenic effects, sympathomimetics should be used with caution. Avoid the use of epinephrine.
There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition. Artificial ventilation may be required if coma is deep and breathing shallow.

VI. REACTIVITY DATA

STABILITY Stable.

HAZARDOUS POLYMERIZATION Will not occur.

CONDITIONS TO AVOID Heat, sparks and open flames.

INCOMPATIBILITY (Materials to Avoid) Strong oxidizing agents.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS Extremely flammable. Will burn to form carbon dioxide, carbon monoxide. May form oxides of nitrogen.

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED Wear appropriate personal protective equipment and remove all sources of ignition. Contain spill using absorbent material and collect material for disposal in a container suitable for flammable waste. See Section IV, "Unusual Fire and Explosion Hazards."

WASTE DISPOSAL METHOD Waste material is a RCRA hazardous waste due to ignitability if discarded in its purchased form. Incineration, treatment or landfilling should be carried out in accordance with applicable RCRA Federal, State, and Local regulations.
VIII. SPECIAL PROTECTION INFORMATION
(for manufacturing and bulk spill cleanup)

RESPIRATORY PROTECTION
Use NIOSH/MSHA approved chemical cartridge respirator for operations which may result in employee exposure above the Permissible Exposure Limit (PEL).

VENTILATION
Use local exhaust ventilation for operations which may result in employee exposure above the PEL.

PROTECTIVE GLOVES
None required under normal use. PVA (polyvinyl alcohol) gloves are recommended for operations which may result in repeated skin contact.

EYE PROTECTION
Safety glasses are considered adequate for normal use.

OTHER PROTECTIVE EQUIPMENT
None required

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
• DANGER: Extremely flammable. Do not store near heat, sparks or open flame.
• Do not inhale vapors; use in well ventilated area.
• Avoid eye and prolonged skin contact.
• Do not drink or swallow contents.
• Contents under pressure; do not store at temperatures above 120°F.

OTHER PRECAUTIONS
Observe all requirements of plant, company or government regulations.

KEEP OUT OF REACH OF CHILDREN.
X. DEPARTMENT OF TRANSPORTATION

HAZARDOUS MATERIALS
Engine Starting Fluid

HAZARD CLASSIFICATION
Flammable Gas

IDENTIFICATION NUMBER
UN1960

LABEL(S) REQUIRED
Flammable Gas

XI. ENVIRONMENTAL DATA

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW INFORMATION

This product contains the following chemicals subject to SARA TITLE III, Section 313 reporting:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This MSDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While First Brands Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which First Brands Corporation assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact:

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