

# MSDS Material Safety Data Sheet

THE PENRAY COMPANIES



PENRAY AIR BRAKE ANTIFREEZE 5601

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MSDS Number: 5601

Revision Date: 5/19/03

## 1 PRODUCT AND COMPANY IDENTIFICATION

### Manufacturer

The Penray Companies, Inc.

440 Denniston Ct.  
Wheeling, IL 60090

Contact: EH&S Manager  
Telephone Number: 847-459-5000  
FAX Number: 847-459-5043  
E-Mail:  
Web

Product Name: PENRAY AIR BRAKE ANTIFREEZE 5601  
Revision Date: 5/19/03  
MSDS Number: 5601  
Common Name: AIR BRAKE ANTI-FREEZE PRODUCT CONTAINING METHANOL  
EMERGENCY PHONE NUMBER (800) 752-7869

NFPA 704M RATING :

HEALTH:2 FIRE:4 REACTIVITY:0 SPECIAL:

0=INSIGNIFICANT 1=SLIGHT 2=MODERATE 3=HIGH 4=EXTREME

## 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NUMBER	PERCENT WEIGHT
METHANOL	67-56-1	>99%

## 3 HAZARDS IDENTIFICATION

**Route of Entry:** Skin absorption and inhalation  
**Target Organs:** Lungs, kidneys, liver and nervous system.  
**Inhalation:** Respiratory irritation and dizziness  
**Skin Contact:** Prolonged contact with skin can cause irritation. Repeated skin contact may cause persistent irritation and dermatitis Harmful if absorbed through skin.  
**Eye Contact:** Will cause severe irritation redness, tearing and blurred vision on contact  
**Ingestion:** Product may be harmful if swallowed and may cause nausea, vomiting and diarrhea.

CARCINOGENICITY: Product is not considered a carcinogen by OSHA, NTP or IARC.

MEDICAL CONDITIONS: Pre-existing eye or skin conditions may be aggravated by over-exposure to this product.

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## 4 FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention. Inhalation hazard unlikely due to low volatility of product.
- Skin Contact:** Wash area with soap and water. seek medical attention if irritation persists
- Eye Contact:** Immediately flush eyes with plenty of water for 15 minutes. Seek medical attention.
- Ingestion:** DO NOT induce vomiting. Only give CONSCIOUS victim two glasses of water and seek medical attention. NEVER give UNCONSCIOUS anything by mouth.

## 5 FIRE FIGHTING MEASURES

Flash Point: 53-55 degress F  
Flash Point Method: TCC

Other:

EXTINGUISHING MEDIA: Carbon Dioxide (CO<sub>2</sub>) Dry Chemical, Foam. UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and can collect in low areas. FIRE FIGHTING INSTRUCTIONS: Containers can build up pressure if exposed to fire. Containers should be cooled with water supply. FIRE FIGHTING EQUIPMENT: self-contained breathing apparatus with full face piece operated in positive pressure mode.

## 6 ACCIDENTAL RELEASE MEASURES

SPILL/LEAK PROCEDURES: Notify safety personnel ,evacuate all unnecessary personnel and provide adequate ventilation. If feasible, and without risk, clean-up personnel should stop leak. All clean up personnel should wear proper personal protective equipment.

SMALL SPILLS: Clean with inert absorbent and place in recovery drums for disposal.

LARGE SPILLS: Dike to prevent further migration of material. DO NOT release into waterways or sewers. Follow applicable federal and state regulations.

## 7 HANDLING AND STORAGE

- Handling Precautions:** Wash thoroughly after handling. Do not get into eyes, on skin or on clothing.. Do not smoke while using this product. Do not use near excessive heat, sparks, or open flame.
- Storage Requirements:** Store in clean, dry locations away from excessive heat. Store in areas designated for the storage of flammable liquids according to NFPA 30 ( Flammable and Combustible Liquids Code)

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls:** Eye wash station and safety shower.  
Strong general ventilation or local exhaust.
- Protective Equipment:** EYE: Chemical splash goggles with indirect or no ventilation.  
SKIN :Chemical resistant gloves, such as nitrile.  
RESPIRATORY: Organic vapor air purifying respirator if vapors are a nuisance or if the concentrations are above PEL or TLV.

Never eat, drink or smoke in work area

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## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	colorless	<b>Boiling Point:</b>	180 F
<b>Physical State:</b>	liquid	<b>Freezing/Melting Pt.:</b>	
<b>Odor:</b>	strong alcohol odor	<b>Solubility:</b>	Completely soluble in water
<b>pH:</b>		<b>Spec Grav./Density:</b>	0.789
<b>Vapor Pressure:</b>	33 mmHG		
<b>Vapor Density:</b>	2		
<b>VOC:</b>	100%		
<b>Evap. Rate:</b>	7.7		

## 10 STABILITY AND REACTIVITY

<b>Stability:</b>	Material is stable.
<b>Conditions to avoid:</b>	Excessive heat and open flame.
<b>Materials to avoid (incompatibility):</b>	Strong oxidizing agents.
<b>Hazardous Decomposition products:</b>	Carbon Monoxide and Carbon Dioxide
<b>Hazardous Polymerization:</b>	Cannot occur.

## 11 TOXICOLOGICAL INFORMATION

LD50  
METHANOL 5.6 g/km (oral), 15.8 g/kg (dermal)

## 12 ECOLOGICAL INFORMATION

No data.

## 13 DISPOSAL CONSIDERATIONS

As a waste, this product in its raw form DOES MEET the criteria of a hazardous waste as defined by RCRA (40CFR361). As a waste this product can be fuel blended at a fuel blending facility. Dispose of in accordance with all applicable state, federal and local regulations.

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## 14 TRANSPORT INFORMATION

DOMESTIC:  
5632: CONSUMER COMMODITY ORM-D  
5601/5655: METHANOL SOLUTION, CLASS 3, UN1230, PGII

EXPORT:  
5632 METHANOL SOLUTION CLASS 3, UN1230, PGII, FP53F, LIMITED QUANTITY  
5601/5655 METHANOL SOLUTION CLASS 3, UN1230, PGII, FP53F, LIMITED QUANTITY

## 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS  
OSHA: Considered to be a hazardous material as defined by 29CFR1910.1200

EPA SARA TITLE III

Section 311-312 (40CFR370): If stored in excess of the threshold quantities, this product should be reported as a(n):

IMMEDIATE (acute) HEALTH HAZARD  
DELAYED (chronic) HEALTH HAZARD  
FIRE HAZARD

Section 313(40CFR372) This product contains ingredients which are subject to the reporting requirements of SARA 313:  
METHANOL

## 16 OTHER INFORMATION

CALIFORNIA PROPOSITION 65: This product does not contain ingredients which are on the current Proposition 65 list.

Notes:  
NG= NOT GIVEN  
BT= BETWEEN  
<= LESS THAN  
>= GREATER THAN

USERS RESPONSIBILITY; This MSDS provides environmental, health and safety information. This product is to be used in applications consistent with our product literature and container label. Individuals handling this product should be informed to the recommended safety precautions and have access to this MSDS. Please contact your local sales representative or our EH&S Department for further information.

END OF MSDS

END OF MSDS DOCUMENT



## MATERIAL SAFETY DATA SHEET

IDENTITY (As used on label and list): **POLAR STARTING FLUID**

PRODUCT CODE: POSF0081, POSF0082

NFPA Hazard Identification      0 - Least      1 - Slight      2 - Moderate      3 - High      4 - Extreme

Health: 1

Fire: 4

Reactivity: 0

### Section I - General Information

Warren Distribution, Inc.  
 2849 River Road  
 Council Bluffs, IA 51501  
 Information. (402) 341-9397

Emergency (402) 677-1331

Chemtrec (800) 424-9300

Revised: 04/29/03

### Section II - Hazardous Ingredients

COMPONENT NAME	%	CAS	OSHA PEL	ACGIH TLV	
Carbon Dioxide	1-10	124-38-9	10000ppm	5000ppm	30000ppmSTEL
Heptane	55-70	142-82-5	400ppm	400ppm	500ppmSTEL
Diethyl Ether	17-30	60-29-7	400ppm	400ppm	

### Section III - Hazards Identification

**EYE CONTACT:** May cause severe irritation, redness, tearing, blurred vision

**SKIN CONTACT:** Prolonged or repeated contact can cause moderate irritation, defatting, and/or dermatitis.

**INHALATION:** Excessive inhalation of vapors can cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache, and possible unconsciousness, and even asphyxiation.

**INGESTION:** can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Aspiration of material into the lungs may cause chemical pneumonia, which may be fatal.

**CARCINOGENICITY:** n/a

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** As above

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Not determined

**OTHER HEALTH INFORMATION:** Primary route of entry is skin.

### Section IV - First Aid Procedures

**EYE CONTACT:** Flush with large amounts of water, lifting upper and lower lids occasionally. Get medical attention.

**SKIN CONTACT:** Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

**INHALATION:** If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm and quiet, and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

#### Section V - Fire and Explosion Hazard Data

Flash Point (deg F): -49 Method Used: TCC  
Flammable or Explosive Limits (approximate % by volume in air) LEL: 1.85 UEL: 48.0

**EXTINGUISHING MEDIA:** Regular foam, carbon dioxide, and dry chemical.

**SPECIAL FIRE FIGHTING PROCEDURES:** Handle as extremely flammable liquid. Cool container exposed to heat with water. Use air-supplied breathing equipment for enclosed areas

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Contents under pressure

#### Section VI - Accidental Release Measures

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Ventilate area. Extinguish all ignition sources (flares, electric sparks, and flames, including pilot lights). Persons not wearing protective equipment should be excluded from area of spill until leak has been repaired. Apply absorbent material to spill area.

#### Section VII - Handling and Storage

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in this datasheet must be observed. Never store product in area above 120 F.

**OTHER PRECAUTIONS:** Do not puncture or incinerate

#### Section VIII - Exposure Controls/Personal Protection

**RESPIRATORY PROTECTION:** If workplace exposure limits of product or any component is exceeded a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposure.

**VENTILATION:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

**PROTECTIVE GLOVES:** None under normal conditions of use

**EYE PROTECTION:** None under normal conditions of use

**OTHER PROTECTIVE EQUIPMENT:** None under normal conditions of use.

**Section IX - Physical/Chemical Characteristics**

Boiling Point (deg F): 95      Specific Gravity (H<sub>2</sub>O=1): .713      Vapor Pressure (mm Hg): 537.0  
Melting Point (deg F): -177      Vapor Density (Air=1): >2.55      Solubility in Water : Slight  
Evaporation Rate (n-butyl Acetate=1): 37.55

APPEARANCE AND ODOR: Clear, ether smell

**Section X - Reactivity Data**

STABILITY: Stable

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: May form toxic materials, carbon dioxide, carbon monoxide, various hydrocarbons, etc.

HAZARDOUS POLYMERIZATION: Cannot occur

CONDITIONS TO AVOID: n/a

**Section XI - Toxicological Information**

Not determined.

**Section XII - Ecological Information**

Not determined.

**Section XIII - Disposal Considerations**

WASTE DISPOSAL METHOD: Dispose of product in accordance with all local, state, and federal regulations.

**Section XIV - Transport Information**

U.S. DOT hazard classification

Proper shipping name:

Consumer Commodity, ORM-D,

Limited Quantity

Technical name: None

UN Number: None

Hazard Class/ Packaging Group: None

Labels required: None

**Section XV - Regulatory Information**

EPA SARA 313: This product contains 17-30% diethyl ether, CAS 60-29-7.

This material safety data sheet and the information it contains are offered to you in good faith as accurate. We have reviewed any information contained in the data sheet, which we received from sources outside our company and we believe that information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied

## M A T E R I A L   S A F E T Y   D A T A   S H E E T

SFK - Premium Starting Fluid  
Part #SFK

Gold Eagle Company  
4400 S. Kildare Blvd.  
Chicago, IL 60632-0432  
(773) 376-4400

\*\*\*\*\* HMIS RATINGS \*\*\*\*\*  
Health: 2   Flammability: 4   Reactivity: 0   Pers. Prot. Index: B

\*\*\*\*\* NFPA RATINGS \*\*\*\*\*  
Health: 2   Fire: 4   Reactivity: 0   Specific Hazard: None

## SECTION I   PRODUCT IDENTITY

Product/Trade Name(s): SFK - Premium Starting Fluid  
Part Number: SFK  
MSDS Date: 03/17/97  
CAS #: N/A  
Category: Aerosol  
Distributor: N/A  
Chemical Name: N/A  
Formula: N/A  
Brief Description: N/A

## SECTION II   HAZARDOUS INGREDIENTS &amp; EXPOSURE LIMITS

CHEMICAL NAME	CAS #	%	LIMIT VALUES	
CARBON DIOXIDE	124-38-9	5.00	PEL	5,000 ppm
			PEL	9,000 mg/m <sup>3</sup>
DIETHYL ETHER	60-29-7	50.00	PEL	400 ppm
			PEL	1,200 mg/m <sup>3</sup>
HEPTANE	142-82-5	44.00	PEL	500 ppm
			PEL	2,000 mg/m <sup>3</sup>

## SECTION III   PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: N/A  
Vapor Pressure (mm Hg.): N/A  
Vapor Density (AIR = 1): N/A  
Solubility in Water: Negligible  
% Volatile / Volume: 94.5  
Appearance and Odor: Aerosol  
pH: N/A  
Specific Gravity (H<sub>2</sub>O = 1): N/A

## Miscellaneous Information

Extremely flammable compressed gas aerosol. Vapors accumulation can flash or explode. Keep product away from sources of ignition, oxidizing materials and temperatures exceeding 120 F.. Empty containers contain product



SFK - Premium Starting Fluid  
Part #SFK

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**SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS (cont.)**

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**Miscellaneous Information (cont.)**

residues, assume empty containers to have the same hazards as full containers.

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**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

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**Flash Point:** -156 F. (-104.4 C.)

**Flammable Limits:** 1.8 to 48.0

**Lower Explosive Limit (LEL):** 1.8

**Upper Explosive Limit (UEL):** 48.0

**Extinguishing Media**

Carbon dioxide, dry chemical, foam and water fog.

**Special Fire Fighting Procedures**

Use SCBA apparatus operated in pressure demand or other positive pressure mode.

**Unusual Fire and Explosion Hazards**

Water spray may be ineffective, water may be used to cool containers to prevent pressure build up and explosion when containers are exposed to extreme heat. Product is extremely flammable at all times. Avoid inadvertent ignition sources, including static spark.

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**SECTION V REACTIVITY DATA**

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**Stable:** Yes

**Hazardous Polymerization May Occur:** No

**Conditions to Avoid**

Extreme heat (storage) above 120 F., exposure to extreme heat and application to hot surfaces.

**Incompatibility (Material to Avoid)**

Oxidizing agents.

**Hazardous Decomposition or Byproducts**

May produce fumes when heated to decomposition, fumes may contain carbon monoxide.

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**SECTION VI HEALTH HAZARD DATA**

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**Effects on Eyes**

Irritant

**Effects on Skin**

Irritant.

**Effects Due to Ingestion**

Not a likely source of entry or exposure, seek immediate medical attention.

**Effects Due to Inhalation**

Respiratory irritation and coughing, headache, nausea, fatigue, drowsiness and impaired coordination. (Note product is a strong anesthesia causing dizziness, intoxication and unconsciousness.)

**First Aid Procedures for Eyes**

If the product contacts the eyes, immediately wash the eyes with large quantities of room temperature water for at least 15 minutes, occasionally lifting the lower and upper lids. Get medical attention immediately. A follow up visit to an ophthalmologist should be made. Contact lenses should

**SFK - Premium Starting Fluid  
Part #SFK**

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**SECTION VI HEALTH HAZARD DATA (cont.)**

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**First Aid Procedures for Eyes (cont.)**

not be worn when working with this chemical.

**First Aid Procedures for Skin**

If the product contacts the skin, promptly wash the contaminated skin with soap and water for at least 15 minutes. Get medical attention as required.

**First Aid Procedures for Ingestion**

Get medical attention immediately. Proper treatment is dependent on the condition of the person and amount ingested.

**First Aid Procedures for Inhalation**

Move the exposed person to fresh air at once and call emergency medical care. If breathing has stopped, give artificial respiration. If breathing is difficult, give humidified oxygen.

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**SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE**

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**Steps to Be Taken in Case Material is Released or Spilled**

**SMALL SPILLS:** Remove sources of heat or ignition, provide adequate ventilation, contain leak using absorbent, inert, non-combustible material.

**LARGE SPILLS:** Contain spill, transfer to secure containers. In the event of an uncontrolled material release, the user should determine if release is reportable under applicable laws and regulations.

**Waste Disposal Method**

Dispose of product in accordance with local, state, and federal regulations. Before attempting clean up, refer to other sections of MSDS for hazard warning information.

**Precautions to Be Taken in Handling and Storing**

See other sections of MSDS.

**Other Precautions**

None

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**SECTION VIII CONTROL MEASURES**

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**Local Exhaust:** Provide local ventilation to maintain exposure levels below any recommended limits.

**Mechanical (General):** In confined spaces, mechanical ventilation may be required.

**Special Ventilation:** N/A

**Other Ventilation:** N/A

**Protective Gloves:** Use natural rubber or neoprene gloves as required.

**Eye Protection:** Use splash proof chemical, safety goggles or appropriate full-face shield.

**Other Protective Clothing or Equipment**

If there is a possibility of exposure of an individual's body to the product, wear body covering clothes to avoid prolonged or repeated exposure.

**Work/Hygienic Practices**

Use normal hygiene practices.

**Respiratory Protection (Specify Type)**

Normally not required. A NIOSH approved respirator approved for organic vapors and mists may be used after determining airborne levels of organic vapors in the workplace.

SFK - Premium Starting Fluid  
Part #SFK

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SECTION VIII CONTROL MEASURES (cont.)

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Respiratory Protection (Specify Type) (cont.)

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SECTION IX ADDITIONAL INFORMATION

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Additional Information

SHIPPING INFORMATION (CFR 49 AND IMDG):

-PROPER SHIPPING NAME: Fluid, Engine Starting

-DOT HAZARD CLASS : Engine Starting Fluid, 2.1, UN1960,  
Flammable Gas.

-IMDG SHIPPING NAME : Aerosols (<1000cm<sup>3</sup>), Dangerous Goods in  
Limited Quantities of Class 2 (UN1950).

SARA TITLE III:

-Section 302: None

-Section 304: None

-Section 311: None

-Section 313: None

CERCLA:

Section 311 (b) (4): Requires discharges of crude oil and petroleum products in any kind of form to waters must be reported to the National Response Center at (800) 424-8802.

DISCLAIMER: Information presented herein is believed to be factual, as it has been derived from the works and opinions of persons believed to be qualified experts. However, nothing contained in this information is to be taken as warranty or representation for which the Gold Eagle Co. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Prepared by: Mike Profetto

Date : 3/17/97

The information and recommendations set forth herein are believed to be accurate as of the MSDS date, Corbus, a division of Compliance Management Systems, Inc., makes no warranties expressed or implied of fitness for a particular purpose with respect hereto and disclaims all liability from reliance thereon.

**MATERIAL SAFETY DATA SHEET**

**PRODUCT NAME:** STARTING FLUID **PRODUCT CODE:** 11/1172/2/8 2182

**SECTION I MANUFACTURER & PHONE NUMBERS**

**TRADCO CORPORATION**  
 1081 ROSEMARY BLVD  
 AKRON, OHIO 44306

**EMERGENCY PHONE #** 1-800-255-3924  
**INFORMATION #** 330-773-7669  
**DATE PREPARED** 7/17/86

**SECTION II HAZARDOUS INGREDIENTS, IDENTITY INFORMATION**

HAZARDOUS COMPONENTS	EAS NUMBER
HEPTANE	142-82-5
ETHER	60-29-7
CARBON DIOXIDE	34-38-9

<b>RATING</b>	<b>HMS HAZARD RATINGS</b>
LEAST = 0	HEALTH & HAZARD 2
SLIGHT = 1	FLAMMABILITY HAZARD 4
MODERATE = 2	REACTIVITY HAZARD 1
HIGH = 3	MAX PERSONAL PROTECTION
SEVERE = 4	

**SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS**

<b>BOILING POINT</b>	156 F	<b>SPECIFIC GRAVITY</b>	0.880
<b>VAPOR PRESSURE (mm Hg)</b>	68 F	<b>MELTING POINT</b>	N/A
<b>VAPOR DENSITY (AIR =1)</b>	3.0	<b>EVAPORATION RATE</b>	9.0
<b>SOLUBILITY IN WATER</b>	100%		

**APPEARANCE AND ODOR**  
 CLEAR MILKY IN COLOR WITH VERY STRONG ODOR FROM ETHER

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT** -10 F **FLAMMABLE LIMITS LEL** 1.0% **UEL**

**EXTINGUISHING MEDIA**  
 REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

**SPECIAL FIRE FIGHTING PROCEDURES**  
 WEAR SELF CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**  
 MATERIALS ARE SLIGHTLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, SPARKS, HEATERS, SMOKING, ELECTRIC MOTOR, STATIC DISCHARGE, OR OTHER IGNITION SOURCES.

PRODUCT NAME: STARTING FLUID PRODUCT CODE: 117 1172 212 2182

**SECTION V REACTIVITY DATA**

**STABILITY** UNSTABLE: \_\_\_\_\_ **CONDITIONS TO AVOID**

STABLE: **XX**

**MATERIALS TO AVOID:**  
STRONG OXIDIZING AGENTS

**HAZARDOUS DECOMPOSITION**  
CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS

**HAZARDOUS POLYMERIZATION** **CONDITIONS TO AVOID**

MAY OCCUR: \_\_\_\_\_  
WILL NOT OCCUR: **XX**

**SECTION VI HEALTH HAZARD DATA**

**ROUTE OF ENTRY**  
INHALATION: **YES** SKIN: **YES** INGESTION: **YES**

**HEALTH HAZARDS (ACUTE AND CHRONIC)**  
HEXANE MAY DAMAGE PERIPHERAL NERVE TISSUE AND RESULT IN MUSCULAR WEAKNESS. OVER-EXPOSURE HAS BEEN SUGGESTED AS A CAUSE OF CENTRAL NERVOUS SYSTEM DAMAGE

**SIGNS AND SYMPTOMS OF EXPOSURE**  
MILD EYE IRRITATION, STINGING AND REDNESS. SKIN: REDNESS, BURNING DRYING & CRACKING. BREATHING: DIZZINESS, WEAKNESS, FATIGUE, NAUSEA

**EMERGENCY AND FIRST AID PROCEDURES**  
EYES: FLUSH EYES WITH CLEAN WATER WHILE HOLDING EYE LIDS APART.  
SKIN: REMOVE CONTAMINATED CLOTHING, WASH SKIN WITH SOAP AND WATER  
SWALLOWED: KEEP PERSON WARM AND CALM, DO NOT INDUCE VOMITING, GET MEDICAL ATTENTION!

BREATHING: REMOVE PERSON FROM AREA. IF BREATHING IS DIFFICULT ADMINISTER OXYGEN.

**SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE**

**SPILLS**  
SMALL: ABSORB LIQUID ON PAPER VERMICULITE.  
LARGE: ELIMINATE ALL IGNITION SOURCES PERSONS NOT WEARING PROTECTIVE CLOTHING SHOULD BE EXCLUDED FROM AREA OF SPILL. DIKE AREA OF SPILL TO PREVENT SPREADING

**WASTE DISPOSAL**  
ALWAYS DISPOSE OF MATERIALS IN ACCORDANCE WITH YOUR LOCAL REGULATIONS, STATE, AND FEDERAL REGULATIONS.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**  
CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED SINCE CONTAINERS RETAIN RESIDUE. ALL HAZARD PRECAUTIONS GIVEN MUST BE OBSERVED.

**SECTION VIII CONTROL MEASURES**

**RESPIRATORY PROTECTION (SPECIFY TYPE)**  
A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL.

**VENTILATION:**  
MECHANICAL GENERAL: \_\_\_\_\_ **X** \_\_\_\_\_ LOCAL EXHAUST: \_\_\_\_\_

**PROTECTIVE GLOVES:** NITRILE RUBBER **EYE PROTECTION:** CHEMICAL SPLASH GOGGLES

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT**  
IMPERVIOUS CLOTHING AND BOOTS SHOULD BE WORN TO PREVENT REPEATED OR PROLONGED SKIN CONTACT

**WORK/HYGIENIC PRACTICES**  
WELL VENTILATED AREA

**TO WHOM IT MAY CONCERN:**

In a continuing effort to supply our customers with current and up to date information, you will find a Material Safety Data Sheet (MSDS) you have requested for the referenced chemical.

The OSHA Hazard Communication Rule (HCR) became effective November 25, 1985 and required chemical manufacturers and importers to:

1. Assess the hazards of chemicals which they produce or import.
2. Label each container of hazardous chemical leaving a workplace.
3. Provide to purchasers a MATERIAL SAFETY DATA SHEET for each hazardous substance which they produce.

The following MSDS is supplied to you pursuant to these legal requirements. TRADCO CORPORATION requests that your company notify your employees, agents, contractors, distributors, and customers who handle, use or otherwise exposed to these chemicals. Use this MSDS as part of your employee information and training on hazardous substances which is required of employers under the OSHA ruling.

Providing accurate safety, health and environmental information for our products is part of TRADCO CORPORATION's commitment to our VALUED CUSTOMERS.

This MSDS and all previous MSDS's has been compiled from our experience and data presented in various technical publications. It is the users responsibility to determine the suitability of this information for the adoption of safety precautions as necessary. We reserve the right to revise Material Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact Tradco to make sure that the sheet is the latest one issued.

**PLEASE LET US KNOW IF WE CAN BE OF FURTHER ASSISTANCE.**

Sincerely,

Safety and Environmental Department

FAX

Date 06/15/98 Pages 3

To: CLIFF

Co: REHUN ELECTRIC

Fax# 810/739-8139

From: CATHY

Tradco # 330-773-7669

Tradco Fax# 330-773-2204