

MATERIAL SAFETY DATA SHEET

Radiator Specialty Company

1400 W. INDEPENDENCE BLVD. • CHARLOTTE, N.C. 28208 • 704-377-6555

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration.
(Non-Mandatory Form) Form Approved OMB No. 1218-0072

SECTION I GENERAL INFORMATION

PRODUCT NAME	DIESEL FUEL ANTI-GEL
PARTS NUMBER	M22-16

NOTE: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	WT.%	C.A.S. NO.	TLV (ACGIH XXXXX OSHA -----)
Aliphatic Petroleum Distillate	57-58	8008-20-6	100 ppm (Air)
Aromatic Petroleum Distillate *	19-20	64742-95-6	100 ppm (Air)
Aromatic Hydrocarbon Solvent Mixture	20-21	Not known	NDA

Comments: * THIS CHEMICAL IS SUBJECT TO REPORTING REQUIREMENTS OF SECTION

Components not identified are non-hazardous according to 29 CFR 1910.1200 313, SARA TITLE III

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Specific Gravity (H2O = 1) <u>0.82-0.85</u>	pH <u>6-7</u>
Solubility in Water <u>Insoluble</u>	Solubility in Solvent <u>Petroleum</u>
Flash Point (Method) - F° <u>120 °F (TCC)</u>	% Volatiles By Wt. <u>Greater than 70%</u>
Melting Point - F° <u>N/A</u>	Boiling Point - F° <u>Approx. 320°F</u>
Vapor Pressure (mmHg) <u>N/A</u>	Vapor Density (Air = 1) <u>N/A</u>
Evaporation Rate (Butyl Acetate = 1) <u>N/A</u>	
Appearance and Odor <u>Clear amber liquid with petroleum odor</u>	

SECTION IV FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Caution: COMBUSTIBLE!			
Water Fog _____	Foam <u>XXX</u>	CO2 <u>xxx</u>	Dry Chemical <u>XXX</u>

SPECIAL FIRE FIGHTING PROCEDURES. Wear self-contained, positive pressure breathing apparatus and protective clothes.

UNUSUAL FIRE AND EXPLOSION HAZARDS None known.

SECTION V REACTIVITY DATA

Stable xx Unstable _____ Corrosive NO Hazardous Polymerization? Yes _____ No NO

Incompatibilities Oxidizing agents, acids and alkalis.
 Hazardous Decomposition or Byproducts Fire: Normal products of combustion: carbon monoxide, carbon dioxide, smoke and Nitrogen, Sulfur Oxides

SECTION VI HEALTH HAZARD INFORMATION

Recommended TLV of Product 100 ppm Aromatic Hydrocarbon Distillate
EYE CONTACT Irritant. **SKIN CONTACT** Defatting, dryness and dermatitis may occur with over exposure.
INHALATION Excessive inhalation may cause headache, dizziness, narcosis. **INGESTION** HARMFUL OR FATAL IF SWALLOWED! May cause diarrhea and stomach cramps.
OTHER If aspired into the lungs, can cause lung irritation.

SECTION VII EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT Flush with water for at least 15 minutes thoroughly. while lifting eyelids. Consult a physician immediately.
SKIN CONTACT Wash with soap and water thoroughly. Remove contaminated clothing and launder before re-use.
INHALATION Remove to fresh air.
INGESTION DO NOT INDUCE VOMITING! DO NOT ADMINISTER EPINEPHRINE OR ADRENALIN! Get medical attention immediately.

SECTION VIII SPECIAL PROTECTION INFORMATION

CONSUMER	BULK HANDLING (Prolonged Exposure)
RESPIRATORY PROTECTION N/A	If TLV is exceeded, wear NIOSH approved respirator.
VENTILATION Use with adequate ventilation	General.
EYE PROTECTION N/A	Goggles or full face shield.
PROTECTIVE CLOTHING N/A	Neoprene gloves and apron.

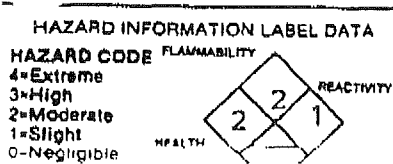
SECTION IX PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL OR LEAK PROCEDURE Observing health hazards described above, ventilate area, remove ignition sources. Confine spill. wipe up with rags and transfer to waste drum.
WASTE DISPOSAL METHOD Dispose of in accordance with all applicable government laws and regulations.
STORAGE AND HANDLING PRECAUTIONS Store in cool place below 120°F, away from oxidizing agents, ignition sources, alkalis.
OTHER PRECAUTIONS WEARING CONTACT LENSES IS INADVISABLE!
 KEEP AWAY FROM CHILDREN AND ANIMALS!

Supersedes November 94

OSHA Revised AUG. 96

Title K. PHILLIPS-CHEMIST



While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data.

704-821-6985 RSC LAB



MATERIAL SAFETY DATA SHEET

PRODUCT
DIESEL FLO SPECIAL BLEND

THE PENRAY COMPANIES, INC. 440 DENNISTON COURT WHEELING, IL 60090 847-459-5000

6/16/98

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS: 3732

Formula: SEE SECTION 2

Part Number: 3732/37055

Synonyms:

DESCRIPTION: FUEL ADDITIVE PRODUCT CONTAINING KEROSENE

Manufacturer

THE PENRAY COMPANIES, INC.
440 DENNISTON COURT
WHEELING, IL 60090

Phone: 847-459-5000
Emergency: 1-800-752-7869 X7

Supplier

THE PENRAY COMPANIES, INC.
440 DENNISTON COURT
WHEELING, IL 60090

Phone: 847-459-5000
Emergency: 1-800-752-7869 X7

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT NAMES	% OF PRODUCT	EXPOSURE LIMITS					
		OSHA TWA		ACGIH			
CAS #:		PPM	MG/M3	PPM	MG/M3		
ISOPROPANOL							
CAS #: 67630	BT 35 40	400	980	400	980		
KEROSENE							
CAS #: 8008206	BT 50 55	400	NG	NG	NG		
HEAVY AROMATIC NAPHTHA							
CAS #: 64742945	BT 1 5	NG	NG	100	NG		

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Prolonged contact with skin may cause moderate irritation. Contact with eyes can cause severe irritation, redness, tearing, and blurred vision. Inhalation of vapors may cause respiratory irritation.



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Page 2

POTENTIAL HEALTH EFFECTS

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

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE: Pre-existing eye or skin conditions may be aggravated by overexposure to this product.

TARGET ORGANS: Liver, lungs, kidneys.

PRIMARY ENTRY ROUTES: Skin absorption and inhalation.

ACUTE HEALTH EFFECTS

EYE CONTACT: Will cause irritation upon contact.

SKIN CONTACT: Prolonged or repeated contact with skin can cause irritation.

INHALATION: Respiratory irritation and dizziness.

INGESTION: This product may be harmful or fatal if swallowed. May cause discomfort, nausea, vomiting, and diarrhea if swallowed.

CHRONIC HEALTH EFFECTS: Overexposure to the ingredients in this product can cause liver abnormalities eye and kidney damage.

H.S. Ratings: 1 HEALTH 4 FLAMMABILITY 0 REACTIVITY
 0=Insignificant 1=Slight 2=Moderate 3=High 4=Severe

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for 15 minutes. Seek medical attention.

SKIN CONTACT: Wash area with soap and water. Seek medical attention if irritation persists.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention.

INGESTION: Induce vomiting. Give CONSCIOUS victim large quantities of water and seek medical attention. NEVER give water to unconscious victim.

SECTION 5 - FIRE FIGHTING MEASURES

Closed Cup Flash Pt. .: BT 53 F 105 F TCC
 Open Cup Flash Point .: NG
 Fire Point: NG
 Auto Ignition: NG
 Lower Explosion Limit : NG
 Upper Explosion Limit : NG

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Page 3

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam.

UNUSUAL FIRE AND EXPLOSIVE 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 spray.

FIRE FIGHTING EQUIPMENT: Self contained breathing apparatus with full face piece operated in pressure demand or positive pressure mode.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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

SMALL SPILL: Clean with inert absorbant and place in recovery drums for disposal.

LARGE SPILL: Dike to prevent further migration of material. Do not release into waterways or sewers. Follow applicable OSHA regulation 20CFR1910.120

SECTION 7 - HANDLING AND STORAGE

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).

HANDLING PRECAUTIONS: Wash thoroughly after handling. Do not get into eyes, on skin, or on clothing.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT

ENGINEERING CONTROLS: Eye wash station and safety shower.

VENTILATION: Strong general or local exhaust ventilaiton.

PERSONAL PROTECTIVE EQUIPMENT

EYE PROTECTION: Chemical splash goggles with indirect or no ventilation.

SKIN PROTECTION: Chemical resistant gloves and apron.

RESPIRATORY PROTECTION: Wear organic vapor respirator if vapors are a nuisance or if concentrations are above PEL/TLV.



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Page 4

COMMENTS: Never eat, drink, or smoke in work areas.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	BT	180 F	315 F	
Specific Gravity	BT	0.772	0.789	
Vapor Pressure	BT	2	33	mmHg
Vapor Density	BT	2	4.9	AIR = 1
Percent Volatiles		100%		
Evaporation Rate	NG			N-BUTYL ACETATE = 1
pH	NG			
Molecular Weight	NG			
Solubility in Water ..	NOT SOLUBLE IN WATER			
Odor/Appearance/Other Characteristics:				
AMBER LIQUID, STRONG ALCOHOL ODOR				

SECTION 10 - STABILITY AND REACTIVITY INFORMATION

STABILITY: Material is stable.

POLYMERIZATION: Hazardous polymerization cannot occur.

CHEMICAL INCOMPATIBILITIES: Strong oxidizing agents

CONDITIONS TO AVOID: Excessive heat, open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Carbon Dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

---CHEMICAL NAME---	---LD50---
Isopropanol	5.8 g/kg (oral)
Heavy Aromatic Naptha	3237 mg/kg (oral)

SECTION 12 - ECOLOGICAL INFORMATION

No data.

SECTION 13 - DISPOSAL CONSIDERATIONS

As a waste, this product =DOES MEET= the criteria as a hazardous waste under RCRA (40CFR361).

EPA Waste Code: D001

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Page 5

Dispose of in accordance with all applicable state, federal and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Shipping Regulations

UN/NA Number: UN1993
DOT Hazard Class: FLAMMABLE LIQUID, 3
Shipping Label: FLAMMABLE LIQUID, 3 (FOR 37055 ONLY)
Shipping Name: :

DOMESTIC: 3732: Consumer Commodity ORM-D.
37055: Flammable Liquids, n.o.s., (Contains Kerosene), 3, UN
1993, PG II

EXPORT: 3732: Flammable Liquids, n.o.s., (Kerosene), Class 3.2, UN
1993, II, FP 12 degrees C, Limited Quantity
37055: Flammable Liquids, n.o.s., (Kerosene), Class 3.2, UN
1993, II, FP 12 degrees C

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA: Considered hazardous 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 does not contain
ingredients which are subject to the reporting requirements
of SARA 313.

STATE REGULATIONS

California Proposition 65: This product does not contain ingredients
which are listed on current Proposition 65 list.

SECTION 16 - OTHER INFORMATION

Preparer's Name & Title:
Paul A. Zoubek, ENVIRONMENTAL HEALTH & SAFETY MANAGER
Preparation Date: 6/15/98
MSDS NUMBER: 3732

REVISION: 5

NOTES: NG = "Not Given"
BT = "Between"
< = "Less Than"
> = "Greater Than:"



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===== Page 6
USER'S 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 of the recommended safety precautions and have access to this MSDS. Please contact your local sales representative or our Environmental Health and Safety Department for further information.

END OF MSDS

The Penray Companies, Inc.

To: Rauhorn Electric
Attn: Cliff
1810739-8139

The Penray Companies
Fax: 847-459-5043
Voice: 847-459-5000

Date: 12/22/98
Time: 2:06PM
Pages Including Cover: 7

MSDS INFORMATION

Please direct this material to your MSDS Coordinator.

If all pages are not received, please notify Penray at the number listed.

