

REC'D FEB 29 2000
penreco

**MATERIAL SAFETY
DATA SHEET**

3755
01L00027

1. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME: PENRECO

CAS NUMBER: MIXTURE

MSDS CODE: 013695

ADDRESS: 4401 PARK AVENUE
DICKINSON, TX 77539

NFPA HAZARD IDENTIFICATION
DEGREE OF HAZARD HAZARD RATINGS

EMERGENCY TELEPHONE NO.: (800) 546-6040

HEALTH: 0 0-LEAST
FIRE: 0 1-SLIGHT
REACTIVITY: 0 2-MODERATE
3-HIGH
4-EXTREME

TRADE NAME: SONTEX ADDITIZED REFRIGERATION OIL - ALL GRADES

SYNONYMS: 155LT-6543, 160LT-A,-1, 6546-6548, 200LT-1,-6552

BY: HEALTH SERVICES
(800) 546-6227

EFFECTIVE DATE: DECEMBER 23, 1998
SUPERSEDES DATE: SEPTEMBER 09, 1998

2. INGREDIENTS

COMPONENT NAME CAS NUMBER	HAZARDOUS		PERCENTAGE		COMPONENT EXPOSURE LIMIT	UNIT
	IN BLEND		MIN	MAX		
MINERAL OIL MIXTURE	NO		95	TO 99	OSHA PEL ACGIH TLV	NO LIMIT NO LIMIT
ANTIWEAR ADDITIVE TRADE SECRET	NO		1	TO 5	OSHA PEL ACGIH TLV	NO LIMIT NO LIMIT
ANTIOXIDANT TRADE SECRET	NO			< 0.1	OSHA PEL ACGIH TLV	NO LIMIT NO LIMIT
SOLUBILITY IMPROVER TRADE SECRET	NO		1	TO 5	OSHA PEL ACGIH TLV	NO LIMIT NO LIMIT
DEFOAMER						

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TRADE SECRET

NO

< 0.01 OSHA PEL
ACGIH TLV

NO LIMIT
NO LIMIT

3. HEALTH INFORMATION AND PROTECTION

- EYE CONTACT:** THIS PRODUCT IS MINIMALLY IRRITATING TO THE EYES UPON DIRECT CONTACT. BASED ON TESTING OF SIMILAR PRODUCTS AND/OR COMPONENTS.
- SKIN CONTACT:** AVOID PROLONGED AND REPEATED SKIN CONTACT. PROLONGED OR REPEATED CONTACT MAY RESULT IN SLIGHT SKIN IRRITATION.
- INHALATION:** THIS PRODUCT HAS A LOW VAPOR PRESSURE AND IS NOT EXPECTED TO PRESENT AN INHALATION HAZARD AT AMBIENT CONDITIONS. CAUTION SHOULD BE TAKEN TO PREVENT AEROSOLIZATION OR MISTING OF THIS PRODUCT. THE PERMISSABLE EXPOSURE LIMIT (PEL) AND THRESHOLD LIMIT VALUE (TLV) FOR THIS PRODUCT AS OIL MIST IS 5 MG/M3. EXPOSURES BELOW 5 MG/M3 APPEAR TO BE WITHOUT SIGNIFICANT HEALTH RISK. THE SHORT-TERM EXPOSURE LIMIT FOR THIS PRODUCT AS AN OIL MIST IS 10 MG/M3. SEE HEALTH DATA SECTION BELOW.
- INGESTION:** INGESTION IS RELATIVELY NON-TOXIC UNLESS ASPIRATION OCCURS. THIS PRODUCT HAS LAXATIVE PROPERTIES AND MAY RESULT IN ABDOMINAL CRAMPS AND DIARRHEA. SEE HEALTH DATA SECTION BELOW.
- HEALTH DATA:** EXPOSURE TO A LARGE SINGLE DOSE, OR REPEATED SMALL DOSES OF MINERAL OIL BY INHALATION, ASPIRATION OR INGESTION LEADING TO ASPIRATION CAN LEAD TO LIPID PNEUMONIA OR LIPID GRANULOMA OF THE LUNG. THESE ARE LOW-GRADE, CHRONIC, LOCALIZED TISSUE REACTIONS. SHORTNESS OF BREATH AND COUGH ARE THE MOST COMMON SYMPTOMS.
- THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS CONCLUDED THAT HIGHLY REFINED MINERAL OILS ARE GROUP 3 SUBSTANCES, "NOT CLASSIFIABLE AS TO THEIR CARCINOGENICITY TO HUMANS," BASED ON INADEQUATE HUMAN AND INADEQUATE ANIMAL EVIDENCE. IARC HAS ALSO CONCLUDED THAT THERE IS NO EVIDENCE FOR THE CARCINOGENICITY TO EXPERIMENTAL ANIMALS OF WHITE OILS WHEN ADMINISTERED BY ROUTES OTHER THAN BY INTRAPERITONEAL INJECTION. THIS SUBSTANCE IS NOT CARCINOGENIC ACCORDING TO THE OSHA HAZARD COMMUNICATION STANDARD.
- THIS PRODUCT CONTAINS <2% BUTYLATED TRIPHENYL PHOSPHATE WITH <1% TRIPHENYL PHOSPHATE (TPP). IN CONCENTRATED FORM, IT PRODUCED INHIBITION OF HEN PLASMA CHOLINESTERASE BUT NOT BRAIN NEUROTOXIC ESTERASE. IT DID NOT PRODUCE ANY EVIDENCE OF ACUTE, DELAYED NEUROTOXICITY IN HENS. LARGE QUANTITIES OF TPP HAS BEEN REPORTED TO INHIBIT PLASMA CHOLINESTERASE IN HUMANS AND ANIMALS. NO INDUSTRIAL POISONINGS HAVE BEEN REPORTED IN WORKERS EXPOSED TO DUSTS AND VAPOR MISTS CONTAINING TPP.

4. EMERGENCY & FIRST AID PROCEDURES

- EYE CONTACT:** IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER AND CONTINUE FLUSHING UNTIL IRRITATION SUBSIDES. IF MATERIAL IS HOT, TREAT FOR THERMAL BURNS AND TAKE VICTIM TO HOSPITAL IMMEDIATELY.

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SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. IF MATERIAL IS HOT, SUBMERGE INJURED AREA IN COLD WATER. IF VICTIM IS SEVERELY BURNED, REMOVE TO A HOSPITAL IMMEDIATELY.

INHALATION: THIS MATERIAL HAS A LOW VAPOR PRESSURE AND IS NOT EXPECTED TO PRESENT AN INHALATION EXPOSURE AT AMBIENT CONDITIONS.

INGESTION: DO NOT INDUCE VOMITING.

5. PERSONAL HEALTH PROTECTION INFORMATION

EYE PROTECTION: EYE PROTECTION IS NOT REQUIRED UNDER CONDITIONS OF NORMAL USE. IF MATERIAL IS HANDLED SUCH THAT IT COULD BE SPLASHED INTO EYES, WEAR PLASTIC FACE SHIELD OR SPLASH-PROOF SAFETY GOGGLES.

SKIN PROTECTION: NO SKIN PROTECTION IS REQUIRED FOR SINGLE, SHORT DURATION EXPOSURES. FOR PROLONGED OR REPEATED EXPOSURES, USE IMPERVIOUS CLOTHING (BOOTS, GLOVES, APRONS, ETC.) OVER PARTS OF THE BODY SUBJECT TO EXPOSURE. IF HANDLING HOT MATERIAL, USE INSULATED PROTECTIVE CLOTHING (BOOTS, GLOVES, APRONS, ETC.).

RESPIRATORY PROTECTION: RESPIRATORY PROTECTION IS NOT REQUIRED UNDER CONDITIONS OF NORMAL USE. IF VAPOR OR MIST IS GENERATED WHEN THE MATERIAL IS HEATED OR HANDLED, USE AN ORGANIC VAPOR RESPIRATOR WITH A DUST AND MIST FILTER. ALL RESPIRATORS MUST BE NIOSH CERTIFIED. DO NOT USE COMPRESSED OXYGEN IN HYDROCARBON ATMOSPHERES.

VENTILATION: IF VAPOR OR MIST IS GENERATED WHEN THE MATERIAL IS HEATED OR HANDLED, ADEQUATE VENTILATION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE MUST BE PROVIDED TO MAINTAIN CONCENTRATIONS BELOW THE SPECIFIED EXPOSURE OR FLAMMABLE LIMITS.

OTHER: CONSUMPTION OF FOOD AND BEVERAGE SHOULD BE AVOIDED IN WORK AREAS WHERE HYDROCARBONS ARE PRESENT. ALWAYS WASH HANDS AND FACE WITH SOAP AND WATER BEFORE EATING, DRINKING, OR SMOKING.

6. FIRE PROTECTION INFORMATION

FLASH POINT: > 340 F TEST METHOD: C.O.C.

AUTOIGNITION TEMPERATURE: NO DATA TEST METHOD: NO DATA

FLAMMABLE LIMITS IN AIR % BY VOLUME LOWER: NO DATA UPPER: NO DATA

EXTINGUISHING MEDIA: USE DRY CHEMICAL, FOAM, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES: WATER MAY BE INEFFECTIVE BUT CAN BE USED TO COOL CONTAINERS EXPOSED TO HEAT OR FLAME. CAUTION SHOULD BE EXERCISED WHEN USING WATER OR FOAM AS FROTHING MAY OCCUR, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT, BURNING

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LIQUID.

UNUSUAL FIRE AND EXPLOSIVE CONDITIONS: DENSE SMOKE MAY BE GENERATED WHILE BURNING. CARBON MONOXIDE, CARBON DIOXIDE, AND OTHER OXIDES MAY BE GENERATED AS PRODUCTS OF COMBUSTION.

7. REACTIVITY DATA

STABILITY (THERMAL, LIGHT, ETC.): STABLE

CONDITIONS TO AVOID: NONE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: NONE

INCOMPATIBILITY MATERIALS TO AVOID: MAY REACT WITH STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

8. ENVIRONMENTAL PRECAUTIONS

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: CONSULT HEALTH EFFECT INFORMATION IN SECTION III, PERSONAL HEALTH PROTECTION INFORMATION IN SECTION V, FIRE PROTECTION INFORMATION IN SECTION VI, AND REACTIVITY DATA IN SECTION VII. NOTIFY APPROPRIATE AUTHORITIES OF SPILL. CONTAIN SPILL IMMEDIATELY. DO NOT ALLOW SPILL TO ENTER SEWERS OR WATERCOURSES. REMOVE ALL SOURCES OF IGNITION. ABSORB WITH APPROPRIATE INERT MATERIAL SUCH AS SAND, CLAY, ETC. LARGE SPILLS MAY BE PICKED UP USING VACUUM PUMPS, SHOVELS, BUCKETS, OR OTHER MEANS AND PLACED IN DRUMS OR OTHER SUITABLE CONTAINERS.

WASTE DISPOSAL METHOD: ALL DISPOSALS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE MATERIAL, IF SPILLED OR DISCARDED, MAY BE A REGULATED WASTE. REFER TO STATE AND LOCAL REGULATIONS. CAUTION! IF REGULATED SOLVENTS ARE USED TO CLEAN UP SPILLED MATERIAL, THE RESULTING WASTE MIXTURE MAY BE REGULATED. DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS MAY APPLY FOR TRANSPORTING THIS MATERIAL WHEN SPILLED. WASTE MATERIAL MAY BE LANDFILLED OR INCINERATED AT AN APPROVED FACILITY. MATERIALS SHOULD BE RECYCLED IF POSSIBLE.

9. MISCELLANEOUS

HANDLING AND STORAGE REQUIREMENTS: DO NOT TRANSFER TO UNMARKED CONTAINERS. STORE IN CLOSED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAME, OR OXIDIZING MATERIALS. THIS PRODUCT IS NOT CLASSIFIED AS HAZARDOUS UNDER DOT REGULATIONS. FIRE EXTINGUISHERS SHOULD BE KEPT READILY AVAILABLE. SEE NFPA 30 AND OSHA 1910.106--FLAMMABLE AND COMBUSTIBLE LIQUIDS.

ADDITIONAL THIS PRODUCT IS NOT KNOWN TO CONTAIN ANY SARA TITLE III, SECTION 313

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INFORMATION: REPORTABLE CHEMICALS AT OR GREATER THAN 1.0% (0.1% FOR CARCINOGENS).

DOT(BULK): NOT REGULATED.

DOT(NON-BULK): NOT REGULATED.

10. PHYSICAL PROPERTIES

BOILING POINT: 540 F	PERCENT VOLATILE: NIL
MELTING POINT: NOT APPLICABLE	VAPOR DENSITY (AIR=1): > 1
APPEARANCE: TRANSPARENT WATER WHITE LIQUID	EVAPORATION RATE (EE=1): < 1
ODOR: ODORLESS	SPECIFIC GRAVITY: 0.87 - 0.89
VAPOR PRESSURE: < 1 MM HG @ 68 F	MOLECULAR WEIGHT: VARIES
SOLUBILITY: INSOLUBLE IN WATER, SOLUBLE IN HYDROCARBONS	

DISCLAIMER OF WARRANTY:

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