



OUR ENERGY COMES THROUGH.

MATERIAL SAFETY DATA SHEET

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer/Supplier:

Cenex, a division of CHS Cooperatives
P.O. Box 64089
Mail station 525
St. Paul, MN 55164-0089

Transportation Emergency (CHEMTREC): 1-800-424-9300
Technical Information: 1-651-306-8443
MSDS Information: 1-651-306-8438

PRODUCT NAME: #1 DISTILLATE FUEL, Y GRADE

MSDS: 0143-M2A0 - Rev. B (10/30/01)

COMMON NAME: #1 Distillate Fuel, Y-Grade; Fuel Oil

CHEMICAL FORMULA: Mixture

CHEMICAL NAME: Petroleum Distillate

CHEMICAL FAMILY: A mixture of Paraffinic, Olefinic, Naphthenic, and Aromatic Hydrocarbon.

Section 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS	PERCENTAGES (by weight)	PEL (OSHA)	TLV (ACGIH)	CAS #
Petroleum Distillates	>98	N/D ppm TWA	N/D ppm TWA	8008-20-6
1,2,4-Trimethylbenzene	1.1	25 ppm TWA	5 ppm TWA	95-63-6

Note: The National Institute for Occupational Safety and Health has published a Recommended Exposure Limit (REL) of 100 mg/m³ TWA or » 14 ppm based on an average molecular weight of 170 for kerosene like factions.
(TWA) - Time Weighted Average is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.
(STEL) - Short Term Exposure Limit is the employee's 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

A clear to light yellow liquid with a hydrocarbon odor. May contain dye.

OSHA HAZARD CLASSES

Based on OSHA definitions, the following ingredients in this product are hazardous. The OSHA physical and health hazard categories are shown below.

- Petroleum Hydrocarbon - Combustible, toxic (moderate), target organ (skin).
- 1,2,4-Trimethylbenzene - Flammable, toxic, irritant, target organ (Central Nervous System, blood).

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Eye Contact, Dermal, Inhalation, Ingestion.

ACUTE EFFECTS OF OVEREXPOSURE:

- Eyes** - Minor irritation
- Skin** - Slight irritation
- Inhalation** - Vapors may cause dizziness or asphyxiation

Ingestion - Central nervous system depression, peripheral nervous system depression, narcosis, asphyxiation, gastrointestinal disturbances. Aspiration of vomitus can cause serious pneumonitis, particularly in young children.

CHRONIC EFFECTS OF OVEREXPOSURE: Dermatitis from chronic exposure. Products of similar composition were tested on laboratory animals, and weak to moderately positive results were found in mouse skin cancer studies, mixed and inconsistent results were found in mutagenicity studies, and negative results were found in rat teratology studies. There is no direct evidence that this material causes skin cancer in humans. This material is not listed as a carcinogen by NTP, IARC, or OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: May aggravate pre-existing dermatitis or respiratory illness.

CARCINOGENICITY: Petroleum Hydrocarbon	NTP: <u>No</u>	IARC: <u>No</u>	OSHA: <u>No</u>
1,2,4-Trimethylbenzene	NTP: <u>No</u>	IARC: <u>No</u>	OSHA: <u>No</u>

Section 4 - FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: If material contacts the eye, flush thoroughly with water for at least 15 minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention.

Skin Contact: Remove contaminated clothing. Wash affected areas with soap and water.

Inhalation: Move person to fresh air. If a large amount has been inhaled, keep victim warm and get medical attention. Begin rescue breathing procedures if not breathing.

Ingestion: Do **NOT** induce vomiting. Get medical attention immediately. If spontaneous vomiting occurs, lower victim's head in an effort to prevent vomitus from entering the lungs. Never give anything by mouth to an unconscious person.

Section 5 - FIRE - FIGHTING MEASURES

FLASH POINT: 120°F (49°C) TCC **AUTO IGNITION TEMP:** 410° F

FLAMMABLE LIMITS IN AIR	LOWER	UPPER
% BY VOLUME	0.7	5.0

EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide (CO₂), Water (fog pattern)

SPECIAL FIRE FIGHTING PROCEDURES: Water may be ineffective on flames, but should be used to keep fire-exposed containers cool. Water or foam sprayed into container of hot burning product could cause frothing and endanger fire fighters. Large fires, such as tank fires, should be fought with caution. If possible, pump the contents from the tank and keep adjoining structures cool with water. Avoid spreading burning liquid with water used for cooling purposes. Do not flush down public sewers. Avoid inhalation of vapors. Fire fighters should wear self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and may travel along the ground to a source of ignition (pilot light, heater, electric motor) some distance away. Containers, drums (even empty) can explode when heat (welding, cutting, etc.) is applied.

HAZARD RATINGS:	NFPA 704:	Health <u>0</u>	Fire <u>2</u>	Reactivity <u>0</u>
	HMIS:	Health <u>1</u>	Fire <u>2</u>	Reactivity <u>0</u>

Section 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO TAKE IF MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Notify emergency response personnel as appropriate. If facility or operation has an "Oil or Hazardous Substance Contingency Plan", "Spill Prevention Control & Countermeasures (SPCC) Plan" or equivalent, activate its procedures. Prohibit persons not wearing protective equipment from entering

the area. Stop leak at source, contain spill to prevent spreading. Small spills can be removed with inert absorbent. Dike areas of large spill to prevent runoff to sewers, streams, etc. Ventilate area. Avoid breathing vapors.

Section 7 - HANDLING AND STORAGE

HANDLING AND STORAGE: Transport, handle and store in accordance with OSHA Regulation 29 CFR 1910.106, and applicable D.O.T. Regulation. Caution: Misuse of empty containers can be hazardous. Empty containers can be hazardous since emptied containers retain product residue (vapor, liquid, and/or solid). Cutting or welding empty containers might cause fire, explosion or toxic fumes from residues.

Section 8 - EXPOSURE CONTROL - PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate local or dilution ventilation to keep vapors below permissible concentrations.

RESPIRATORY EQUIPMENT: Personnel should never enter areas of high concentrations without proper respiratory protection. If exposure limits for product or components are exceeded, NIOSH-approved respiratory protection equipment should be worn. Proper selection of respirators should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. Self-contained breathing apparatus or supplied air respiratory protection required for entry into tanks, vessels, or other confined spaces containing kerosene.

EYE PROTECTION: Chemical type goggles or face shield where contact with liquid or mist may occur.

PROTECTIVE CLOTHING: Wear impervious clothing and gloves when contact with skin may occur.

OTHER (SAFETY SHOWERS, EYE WASHSTATIONS, ETC.): Water should be available for flushing and washing when exposure exists.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: A clear to light yellow liquid, may contain dye.

ODOR: Hydrocarbon odor.

BOILING POINT: 340°F - 570° F

SPECIFIC GRAVITY (water=1): 0.82

VAPOR PRESSURE: < 50 mmHg @ 100°F

VAPOR DENSITY (air=1): >1

SOLUBLE IN WATER: Insoluble

EVAPORATION RATE (ether=1): >1

pH: N/D

Section 10 - STABILITY AND REACTIVITY

STABILITY:

STABLE X
UNSTABLE

INCOMPATIBILITY:

CONDITIONS TO AVOID: Heat, flame, all ignition sources and static electricity.

MATERIALS TO AVOID: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, and other petroleum decomposition products (hydrocarbons).

HAZARDOUS POLYMERIZATION: Has not been reported to occur under normal temperatures and pressures.

Section 11 - TOXICOLOGY INFORMATION

Note: Cenex has not conducted specific toxicity tests on this product. Our hazard evaluation is based from similar ingredients, technical literature, and/or professional experience.

Section 12 - ECOLOGICAL INFORMATION

Note: Cenex has not conducted specific ecological tests on this product.

Section 13 - DISPOSAL CONSIDERATION

WASTE DISPOSAL PROCEDURES: Recycle as much of the recoverable product as possible. Do not flush to drain or storm sewer or otherwise release to the environment. Dispose of non-recyclable material according to federal, state and local regulations.

Section 14 - TRANSPORTATION

DOT PROPER SHIPPING NAME: Fuel Oil #1

DOT HAZARD CLASS: Flammable Liquid

DOT IDENTIFICATION NUMBER: NA 1993

DOT EMER. RESPONSE GUIDE NO.: 128
(Formerly #27)

Proper Shipping Name-**Fuel Oil #1**; Hazard Class- **3**; UN/NA Identification #- **NA 1993**; **Packing Group III**; Placard- **FLAMMABLE LIQUID**.

Section 15 - REGULATORY INFORMATION

This product contains the following toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

<u>CAS Number</u>	<u>Chemical Name</u>	<u>Percent by Weight</u>
95-63-6	1,2,4-Trimethylbenzene	1.1%

SARA SECTION 311-312 HAZARD CATEGORIES (40 CFR 370.2):

FIRE: Yes **SUDDEN RELEASE OF PRESSURE:** No **REACTIVE:** No **ACUTE:** Yes **CHRONIC:** Yes

Section 16 - OTHER INFORMATION

Prepared By: Hue Lam DATE: October 30, 2001
Title: EHS Compliance Specialist Supersedes: Rev. A, 4/8/99
Reason for Issue: Company Name Change

THE INFORMATION CONTAINED IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL IDENTIFIED. IT DOES NOT COVER USE OF THAT MATERIAL IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PARTICULAR PROCESS. IN COMPLIANCE WITH 29 C.F.R. 1910.1200(g), CENEX HAS PREPARED THIS MSDS IN SEGMENTS, WITH THE INTENT THAT THOSE SEGMENTS BE READ TOGETHER AS A WHOLE WITHOUT TEXTUAL OMISSIONS OR ALTERATIONS. CENEX BELIEVES THE INFORMATION CONTAINED HEREIN TO BE ACCURATE, BUT MAKES NO REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION OR ABOUT THE FITNESS OF CONTENTS HEREIN FOR EITHER GENERAL OR PARTICULAR PURPOSES. PERSONS REVIEWING THIS MSDS SHOULD MAKE THEIR OWN DETERMINATION AS TO THE MATERIAL'S SUITABILITY AND COMPLETENESS FOR USE IN THEIR PARTICULAR APPLICATIONS.