

#2 Diesel Oil Standard.
Product Code: AR2821.
CAS NO. 64742-47-8.
Version 1.1
Effective Date: 11.01.2013.
Regulation: 1907/2006/EC

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING :

Material Name : #2 Diesel Oil Standard, CAS NO. 64742-47-8
% W : 0 – 100 %
Chemical Name : Distillates (petroleum), hydrotreated light
Pack : 100 mL.

Product Code : AR2821 : .15% : Weight percent Sulfur = 0.148% : Standard Deviation : 0.007

Manufacturer Contact Details :

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2. HAZARD IDENTIFICATION:

EMERGENCY OVERVIEW :

DANGER! Harmful or fatal if swallowed. May cause eye irritation. Avoid eye contact. Use with adequate ventilation.

VARIABILITY AMONG INDIVIDUALS :

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists of fumes should be minimized.

EFFECTS OF OVEREXPOSURE (signs and symptoms of exposure) :

High vapor concentrations (greater than approximately 700 ppm, attainable at elevated temperature well above ambient) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE :

Petroleum Solvents/Petroleum Hydrocarbons – Skin contact may aggravate an existing dermatitis.

POTENTIAL HEALTH EFFECTS :

EYES : If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN : In case of skin contact, remove any contaminated clothing and wash skin with soap and water. Launder or dry-clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION: If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

INGESTION: if ingested, DO NOT induce vomiting; call a physician immediately.

LABEL ELEMENTS :

Labeling according to Regulation (EC) No 1272/2008



Symbol(s)

:



Signal Words	:	Danger
CLP Hazard Statements	:	HEALTH HAZARDS: Causes skin irritation. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. ENVIRONMENTAL HAZARDS: Toxic to aquatic life with long lasting effects.
CLP Precautionary statements Prevention	:	Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection.
Response	:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
Disposal	:	Dispose of contents and container to appropriate waste site.

Labeling according to Directive 1999/45/EC / 67/548/EEC

EC Symbols	:	Xn Harmful.  N Dangerous for the environment 
EC Classification	:	Harmful. Irritant. Dangerous for the environment.
EC Risk Phrases	:	Irritating to skin. Harmful: may cause lung damage if swallowed.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

EC Safety Phrases : Do not breathe gas/fumes/vapour/spray.
Avoid contact with skin.
Use only in well-ventilated areas.
Avoid release to the environment.
If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

3. COMPOSITION/INFORMATION ON INGREDIENTS :

3.1 Substance

CAS No. : 64742-47-8

3.2 Mixtures

Mixture Description : A complex combination of hydrocarbons.
It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 249-268 C (480-514 F).
Product is not a mixture according to regulation 1907/2006/EC.

Classification of components according to Regulation (EC) No 1272/2008

Chemical Name	CAS No.	EINECS	REACH Registration No.	Conc.
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8	01-2119484819-18	0- 100,00 %

Chemical Name	Hazard Class & Category	Hazard Statement
Distillates (petroleum), hydrotreated light	Skin Corr., 2; Asp. Tox., 1; STOT SE, 3; Aquatic Chronic, 2;	H315; H304; H336; H411;

Classification of components according to 67/548/EEC

Chemical Name	CAS No.	EINECS	REACH Registration No.	Symbol(s)	R-phrase(s)	Conc.
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8	01-2119484819-18	Xi, Xn, N	R38; R65; R51/53	0 - 100,00%

4. FIRST AID MEASURES :

EYES: If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

INHALATION: If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

SKIN: In case of skin contact, remove any contaminated clothing and wash skin with soap and water. Launder or dry-clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INGESTION: if ingested, DO NOT induce vomiting; call a physician immediately.

5. FIRE FIGHTING MEASURES :

FLAMMABLE PROPERTIES

Flash Point: 105 C (221 F) ASTM D 93, Pensky Martens Closed Cup

AUGO-IGNITION TEMPERATURE

Approximately 211 C (412 F) ASTM E 659

Note: The auto-ignition temperature of this product is relatively low and is reached during laboratory distillation by ASTM Method D 86. Therefore, if the procedure is interrupted, the distillation flask must be cooled before the contents are exposed to air.

Flammable Limits: Lower: 1.6 % Upper: 10.2 %

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES:

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Associations "Fire Protection Guide on Hazardous Materials", Tenth Edition (1991).

Use water spray, dry chemical, foam, or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak of spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop a leak. Water spray may be used to flush spills away from exposure. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSTION PRODUCTS UNDER FIRE CONDITIONS:

Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

6. ACCIDENTAL RELEASE MEARURES :

CLEAN WATER ACT/OIL POLLUTION ACT:

This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges of spills into or leading to surface waters that cause a sheen must be reported to the National Response Center (1-800-424-8802).

SMALL/LARGE SPILL:

Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep products out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.

Assure conformity with applicable governmental regulations. Continue to observe precautions for

volatile, combustible vapors from absorbed material.

7. HANDLING AND STORAGE :

HANDLING: Use product with caution around heat, sparks, pilot lights, static electricity and open flame.

“EMPTY” CONTAINER WARNING: “Empty” containers retain residue (liquid and/or vapor) and can be dangerous. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

Do not attempt to refill or clean containers since residue is difficult to remove. “Empty” drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

For work on tanks refer to OSHA regulation ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations. Safety footwear should be worn and proper handling equipment should be used. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Earth all equipment. Electrostatic charges may be generated during handling. Electrostatic discharge may cause fire.

STORAGE: Drum and small container storage: Drums should be stacked to a maximum of 3 high. Use properly labeled and closeable containers. Take suitable precautions when opening sealed containers, as pressure can build up during storage. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. The vapor is heavier than air. Beware of accumulation in pits and confined spaces. Vapors from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapor treatment system.

ADDITIONAL INFORMATION : Ensure that all local regulations regarding handling and storage facilities are followed.

PRODUCT TRANSFER : Avoid splash filling. Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION :

EXPOSURE LIMIT FOR TOTAL PRODUCT: 143 ppm (1200 mg/m³) based on total hydrocarbon for an 8 hour workday.

VENTILATION: Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking or use of flame or other ignition sources.

RESPIRATORY PROTECTION: Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

HAND PROTECTION: Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE AND FACE PROTECTION: Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT: Use chemical-resistant apron or other impervious clothing, if needed, to avoid contamination regular clothing, which could result in prolonged or repeated skin contact.

PERSONAL HYGIENE: Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry clean before re-use. Removed contaminated shoes and thoroughly clean and dry before re-use. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

WORK PRACTICES/ENGINEERING CONTROLS: To prevent fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system in accordance with the National Fire Protection Association standard for petroleum products. Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. In order to prevent fire or explosion hazards, use appropriate equipment. Information on electrical equipment appropriate for use with this product may be found in the latest edition of the Nation Electrical Code (NFPA-70). This document is available

9. PHYSICAL AND CHEMICAL PROPERTIES :

APPEARANCE AND ODOR	:	Clean water-white liquid, mild mineral spirits odor
BOILING RANGE	:	249-268 C (480-514 F)
FREEZE-MELT POINT	:	Less than -18 C

VAPOR PRESSURE	:	Less than .01 mmHG (ASTM D2879)
VAPOR DENSITY	:	6.3 (Air = 1)
SOLUBILITY IN WATER	:	Negligible
SPECIFIC GRAVITY	:	.81
pH	:	Neutral
PERCENT VOLATILES	:	100 @ 1 atm. and 25 C
EVAPORATION RATE	:	Less than 0.01
VISCOSITY	:	3.46 cSt @15 C ADTM D 445

10. STABILITY AND REACTIVITY :

10.1 Reactivity	:	Oxidizes on contact with air.
10.2 Chemical stability	:	Stable under normal conditions of use.
10.3 Possibility of Hazardous Reactions	:	Oxidizes on contact with air.
10.4 Conditions to Avoid	:	Avoid heat, sparks, open flames and other ignition sources.
10.5 Incompatible Materials	:	Strong oxidizing agents.
10.6 Hazardous Decomposition Products	:	Hazardous decomposition products are not expected to form during normal storage.

Thermal decomposition is highly dependent on conditions.

A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

Basis for Assessment	:	Information given is based on product data, a knowledge of the components and the toxicology of similar products
Likely Routes of Exposure	:	Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.
Acute Oral Toxicity	:	Low toxicity: LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	:	Low toxicity: LD50 >2000 mg/kg , Rabbit
Acute Inhalation Toxicity	:	Low toxicity: LC50 >5 mg/l / 4 h, Rat
Skin corrosion/irritation	:	Irritating to skin.
Serious eye damage/irritation	:	Expected to be slightly irritating.
Respiratory Irritation	:	Inhalation of vapors or mists may cause irritation to the

respiratory system.

Respiratory or skin sensitization	:	Not a skin sensitiser.
Aspiration Hazard	:	Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Germ cell mutagenicity	:	Not considered a mutagenic hazard.
Carcinogenicity	:	Not classified as a carcinogen. Repeated skin contact has resulted in irritation and skin cancer in animals.
Reproductive and Developmental Toxicity	:	Not expected to impair fertility. Not classified as a developmental toxicant.
Specific target organ toxicity - single exposure :		High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Specific target organ toxicity - repeated exposure :		Kidney: caused kidney effects in male rats which are not considered relevant to humans.

12. ECOLOGICAL INFORMATION :

Basis for Assessment : Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Toxicity :

Acute Toxicity : Toxic: LL/EL/IL50 > 1 <= 10 mg/l LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract.

Fish : Toxic: LL/EL/IL50 > 1 <= 10 mg/l

Aquatic crustacean : Toxic: LL/EL/IL50 > 1 <= 10 mg/l

Algae/aquatic plants : Toxic: LL/EL/IL50 > 1 <= 10 mg/l

Microorganisms : Practically non toxic: LL/EL/IL50 > 100 mg/l

Chronic Toxicity :

Fish : NOEC/NOEL expected to be > 0.01 - <= 0.1 mg/l (based on modeled data)

Aquatic crustacean : NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l

Persistence and degradability : Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Mobility : Floats on water. Contains volatile constituents. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater.

Result of PBT and vPvB assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

Other Adverse Effects : Films formed on water may affect oxygen transfer and damage organisms.

13. DISPOSAL CONSIDERATION :

Options for disposal of this product may depend on the conditions under which it was used. To determine the proper method of disposal, refer to RCRA (40 DFR 261), as well as federal, EPA, state and local regulations.

14. TRANSPORTATION INFORMATION :

USA DOT: Not regulated.

15. REGULATORY INFORMATION :

US FEDERAL REGULATIONS

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)

No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)

No toxic chemical is present greater than 1% or 0.1 % (carcinogen).

HAZARDOUS CHECMIAL REPORTING, EPA REGUALTION 40 CFR 370 (SARA Sections 311- 312)

EPA Hazardous Classification Code: Not Applicable.

TOXIC SUBSTANCES CONTRAL ACT (TSCA)

This product does not contain polychlorinated biphenyls (PCB's)

All components of this product are listed on the US TSCE inventory.

CANADIAN REGULATIONS

WHIMS: B3, D2B

16. OTHER INFORMATION :

NFPA HAZARD IDENTIFICATION

Health	Flammability	Reactivity
1	1	0

SUPPLEMENTAL INFORMATION :

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

Date Prepared: January 11, 2013

Prepared by : Greg Molter