ARCO Multipurpose ATF

Material Safety Data Sheet

Lyondell Lubricants
12000 Lawndale Avenue
P.O. Box 2451
Houston, TX 77252-2451

MSDS No. 668302003

Revision Date 08/31/1999

IMPORTANT: Read this MSDS before handling or disposing of this product and pass this information on to employees, customers and users of this product.

Emergency Overview

Physical State Liquid
Color Red **Odor** Mild Petroleum Odor

This product can cause mild eye and skin irritation.
Protect eyes from misting or spraying material.
Protect exposed skin from repeated or prolonged exposure.
This product can burn when preheated but will not ignite readily.
Do not store material in open or unmarked containers.
Spills can cause slipping hazard.

Hazard Rankings

	HMIS	NFPA
Health Hazard	0	0
Fire Hazard	1	1
Reactivity	0	0

* = Chronic Health Hazard

Protective Equipment

Minimum Requirements
See Section 8 for Details

SECTION 1: IDENTIFICATION

Trade Name ARCO Multipurpose ATF
Product Number 668302003
CAS Number Mixture
Product Family Automatic Transmission Fluid
Synonyms Transmission Fluid,
Lyondell Product Code. 10686,
Former ILS Code 68302,
SAP Product Code No 668302003

Technical Contact (918) 495-5933
Medical Emergency (918) 495-4700
CHEMTREC Emergency (800) 424-9300

SECTION 2: COMPOSITION

Component Name(s)	CAS Registry No.	Concentration (%)
1) Highly-Refined Petroleum Lubricant Oils	64741-76-0, 64741-88-4; 64741-89-5, 64742-54-7, 64742-55-8; 64742-65-0	80 - 90
2) Proprietary Additives	Proprietary Mixture	10 - 20

SECTION 3: HAZARDS IDENTIFICATION

Also see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.

Major Route(s) of Entry Skin contact

Signs and Symptoms of Acute Exposure

Inhalation No significant adverse health effects are expected to occur upon short-term exposure to this product Aspiration of liquid into the lungs can cause severe lung damage or death.

Eye Contact	This product can cause transient mild eye irritation with short-term contact with liquid sprays or mists
Skin Contact	This product can cause mild, transient skin irritation with short-term exposure
Ingestion	If swallowed, no significant adverse health effects are anticipated Ingestion can cause a laxative effect If aspirated into the lungs, liquid can cause severe lung damage or death
Chronic Health Effects Summary	Contains a petroleum-based mineral oil Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Inhalation of petroleum-based mineral oils can cause respiratory irritation or other pulmonary effects after repeated or prolonged inhalation of oil mists at concentrations above applicable workplace exposure levels
Conditions Aggravated by Exposure	Personnel with pre-existing skin disorders should avoid repeated or prolonged contact with this product
Target Organs	Skin.
Carcinogenic Potential	This product does not contain any components at concentrations above 0 1% which are considered carcinogenic by OSHA, IARC, or NTP.

OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910 1200)

OSHA Health Hazard Classification				OSHA Physical Hazard Classification					
Irritant	☐	Toxic	☐	Combustible	☐	Explosive	☐	Pyrophoric	☐
Sensitizer	☐	Highly Toxic	☐	Flammable	☐	Oxidizer	☐	Water-reactive	☐
Corrosive	☐	Carcinogenic	☐	Compressed Gas	☐	Organic Peroxide	☐	Unstable	☐

SECTION 4: FIRST AID MEASURES

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation	Vaporization is not expected at ambient temperatures This material is not expected to cause inhalation-related disorders under anticipated conditions of use. In case of overexposure, move the person to fresh air.
Eye Contact	Check for and remove contact lenses Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain persists
Skin Contact	Remove contaminated shoes and clothing. Wipe off excess material. Wash exposed skin with soap and water. Seek medical attention if tissue appears damaged or if irritation persists Thoroughly clean contaminated clothing before reuse. Discard contaminated leather goods If material is injected under the skin, into muscle, or into the bloodstream, seek medical attention immediately
Ingestion	Do not induce vomiting unless directed to by a physician. Do not give anything to drink unless directed to by a physician. Never give anything by mouth to a person who is not fully conscious Seek medical attention immediately
Notes to Physician	The viscosity range of the product(s) represented by this MSDS is 100 to 400 SUS at 100° F Accordingly, upon ingestion there is a low to moderate risk of aspiration Careful gastric lavage may be considered to evacuate large quantities of material Subcutaneous or intramuscular injection requires prompt surgical debridement.

SECTION 5: FIRE FIGHTING MEASURES

NFPA Flammability Classification	OSHA/NFPA Class-IIIB combustible liquid Slightly combustible
Flash Point/Method	CLOSED CUP 171°C (339°F) (Pensky-Martens (ASTM D-93)) OPEN CUP 199°C (390°F) (Cleveland).
Lower Flammable Limit	AP 1 % **Upper Flammable Limit** AP 7 %
Auto-Ignition Temp.	Not available
Hazardous Combustion Products	Carbon Dioxide, Carbon Monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur and nitrogen
Special Properties	When heated above its flash point temperature, this material will release vapors which, if exposed to an ignition source, can ignite In enclosed spaces vapors can ignite with explosive force Mists or sprays may burn at temperatures below the flash point
Extinguishing Media	Use dry chemical, foam, Carbon Dioxide or water fog.
Fire Fighting Protective Clothing	Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

Do not touch damaged containers or spilled material unless wearing appropriate protective equipment Slipping hazard, do not walk through spilled material. Stop leak if you can do so without risk For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal Contain large spills to maximize product recovery or disposal Prevent entry into waterways or sewers. In urban area, cleanup spill as soon as possible In natural environments, seek cleanup advice from specialists to minimize physical habitat damage This material will float on water. Absorbent pads and similar materials can be used Comply with all laws and regulations

SECTION 7: HANDLING AND STORAGE

Handling	Avoid water contamination and extreme temperatures to minimize product degradation Empty containers may contain product residues that can ignite with explosive force Do not pressurize, cut, weld, braze solder, drill, grind or expose containers to flames, sparks, heat or other potential ignition sources Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product
Storage	Keep container closed. Do not store with strong oxidizing agents. Do not store at temperatures above 120° F or in direct sunlight for extended periods of time Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below) An eye wash station and safety shower should be located near the work-station.
Personal Protective Equipment	Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.

Eye Protection	Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is likely, especially if material is heated above 125°F (or 51°C). Have suitable eye wash water available.
Hand Protection	No special skin protection other than good personal hygiene practice is recommended under anticipated conditions of use. However, when prolonged or extensive contact is possible, use of disposable PCV or nitrile gloves is recommended. Wash hands with plenty of mild soap and water before eating, drinking, smoking, using toilet facilities, or leaving work.
Body Protection	Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated before reuse or discard. Wear heat protective boots and protective clothing when handling material at elevated temperatures.
Respiratory Protection	Vaporization or misting is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).
General Comments	Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents, or harsh abrasive skin cleaners. Since specific exposure standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure limits shown below are suggested as minimum control guidelines.

Occupational Exposure Guidelines

Substance	**Applicable Workplace Exposure Levels**
1) Highly-Refined Petroleum Lubricant Oils	TWA: 5 STEL: 10 (mg/M^3) from ACGIH (TLV) TWA: 5 (mg/M^3) from OSHA (PEL) TWA: 5 STEL: 10 (mg/m^3) from NIOSH

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Color**	Red	**Odor**	Mild Petroleum Odor
Specific Gravity	0.86 (Water = 1)	**pH**	Not applicable	**Vapor Density**	GT 1 (Air = 1)
Boiling Point/Range	Not available			**Melting/Freezing Point**	Not available
Vapor Pressure	LT 1 mm of Hg (@ 20°C)			**Viscosity (cSt @ 40°C)**	36
Solubility in Water	Insoluble in cold water			**Volatile Characteristics**	Negligible volatility

Additional Properties

Sulfur = 0.14m %
Phosphorus = 0.029 m %
Calcium = 0.003 m. %
Nitrogen = 0.10 m %
Pour Point (ASTM D97) = -51° C (-60° F)
API Gravity (ASTM D287) = 32.1 @ 60° F
Density = 7.2 Lbs/gal
Viscosity (ASTM D2161) = AP 162 SUS @ 100° F

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable	**Hazardous Polymerization**	Not expected to occur

Conditions to Avoid Keep away from extreme heat, sparks, open flame and strongly oxidizing conditions.

Materials Incompatibility Strong oxidizers

Hazardous Decomposition Products No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS

SECTION 11: TOXICOLOGICAL INFORMATION

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data

Highly-Refined Petroleum Lubricant Oils·

ORAL (LD50)· Acute. >5000 mg/kg [Rat]
DERMAL (LD50). Acute >2000 mg/kg [Rabbit].

Highly-Refined Petroleum Lubricant Oils: Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia in acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity Analysis for ecological effects has not been conducted on this product However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

Environmental Fate Ecological effects testing has not been conducted on this product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-based products. Petroleum-based (mineral) lube oils will normally float on water In stagnant or slow-flowing waterways, an oil layer can cover a large surface area As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment

SECTION 13: DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Conditions of use may cause this material to become a hazardous waste, as defined by Federal or State regulations. It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271) State and/or local regulations may be more restrictive. Contact the RCRA/Superfund Hotline at (800) 424-9346 or your regional US EPA office for guidance concerning case specific disposal issues

SECTION 14: TRANSPORT INFORMATION

DOT Status Not a U.S Department of Transportation regulated material

Proper Shipping Name Petroleum Oil, N.O I B N

Hazard Class Not a DOT controlled material (United States)

Packing Group(s) Not applicable

UN/NA ID Not applicable

Reportable Quantity A Reportable Quantity (RQ) has not been established for this product.

Placards

Emergency Response Guide No. Not applicable

HAZMAT STCC No. Not applicable

MARPOL III Status Not a DOT "Marine Pollutant" per 49 CFR 171 8

SECTION 15: REGULATORY INFORMATION

TSCA Inventory This product and/or its components are listed on the Toxic Substance Control Act (TSCA) inventory.

SARA 302/304 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355 No components were identified.

SARA 311/312 The Superfund Amendments and Reauthorization Act of 1989 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370 2 This material would be classified under the following hazard categories

No SARA 311/312 hazard categories identified

SARA 313 This product contains the following components in concentrations above de minimis levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA. No components were identified.

CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302 4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302 4 Chemical substances present in this product or refinery stream that may be subject to this statute are None Identified

CWA This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

California Proposition 65 This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249 5)· None Identified

New Jersey Right-to-Know Label Automatic Transmission Fluid

Additional Regulatory Remarks No additional regulatory remarks

SECTION 16: OTHER INFORMATION

Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.

REVISION INFORMATION

Version Number	1.0
Revision Date	08/31/1999
Print Date	Printed on 08/31/1999.

ABBREVIATIONS

AP = Approximately EQ = Equal GT = Greater Than LT = Less Than NA = Not Applicable ND = No Data
NE = Not Established

ACGIH = American Conference of Governmental Industrial Hygienists AIHA = American Industrial Hygiene Association

IARC = International Agency for Research on Cancer NTP = National Toxicology Program

NIOSH = National Institute of Occupational Safety and Health OSHA = Occupational Safety and Health Administration

NPCA = National Paint and Coating Manufacturers Association HMIS = Hazardous Materials Information System

NFPA = National Fire Protection Association EPA = Environmental Protection Agency

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