SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: BURNDY® ALFLUID, ALFLUID PLUS

Product Number: Base Oil and Additives

Intended Use: Hydraulic fluid

COMPANY IDENTIFICATION

Supplier:
BURNDY LLC
47 East Industrial Park Drive
Manchester, NH 03109 USA

Burndy Informational Number: (603) 647-5000

24 Hour Emergency (INFOTRAC)
(800) 535-5053 (US and Canada)
(352) 323-3500 (International)

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION

Health	Environmental	Physical
• Aspiration toxicity: Category 1 • Skin Sensitizer: Category 1	Acute Toxicity - Category 3	Flammable Liquid - Category 4

LABELLING

Symbols:

Health Hazard

Acute Toxicity/ Irritation

Signal Word: DANGER

Hazard Statements	Precautionary Statements
• H304: May be fatal if swallowed and enters airways • H 227: Combustible Liquid • H317: May cause allergic skin reaction	• P210: Keep away from flames and hot surfaces. -- No smoking. • P 261: Avoid breathing dust/fume/gas/mist/vapors/spray • P272: Contaminated work clothing should not be allowed out of the workplace. • P280: Wear protective gloves and eye / face protection • P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. • P302 + P352: IF ON SKIN: Wash with plenty of soap and water. • P331: Do NOT induce vomiting. • P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. • P362 + P364: Take off contaminated clothing and wash it before reuse. • P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. • P403 + P235: Store in a well-ventilated place. Keep cool. • P405: Store locked up. • P501: Dispose of contents and container in accordance with local regulations.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	Common Name/Synonym	CAS#	Percentage	Impurities	Risk Phrase
2,6-Ditertbutyl phenol	-	128-39-2	0.1-<0.25%	None Known	Refer Section 15
Alkyl Methacrylate	-	-	0.1-0.25%	None Known	
Distillates (Petroleum), Hydrotreated Light	Hydrotreated Light Petroleum Distillates	64742-47-8	10-<20%	None Known	
Hydrotreated Light Naphthenic Distillate (Petroleum)	Hydrotreated Light Naphthenic Distillates	64742-53-6	60 - < 70%	None Known	
Poly Long Chain Alkyl Methacrylate	-	-	5 - < 10%	None Known	

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4: FIRST AID MEASURES

ROUTES OF ENTRY: Inhalation, Ingestion, Contact

EMERGENCY AND FIRST AID PROCEDURES:

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Eye Contact: Flush thoroughly with water. If irritation occurs, get medical assistance.

Skin Contact: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated 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: Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Combustible. Pressurized mists may form a flammable mixture.

Hazardous Combustion Products: Smoke, Fume, Aldehydes, Sulfur oxides, Incomplete combustion products, Oxides of carbon.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken: Confine and segregate material for reuse. If material cannot be re-used, place material in appropriate disposal container.

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

CLEAN UP AND CONTAINMENT METHODS

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

SECTION 7: HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may affect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

XPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Component Name	CAS #	TWA/STEL	OSHA	ACGIH	NOTE
Distillates (Petroleum), Hydrotreated Light	64742-47-8	TWA	-	200 mg/m³ (Skin)	Non Aerosol, Total hydrocarbon vapor
Hydrotreated Light Naphthenic Distillate (Petroleum)	64742-53-6	TWA	5 mg/m³ (Mist)	5 mg/m³ (Mist)	-

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following are recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction), 5 mg/m³ - OSHA PEL.

Note: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider: Use explosion-proof ventilation equipment to stay below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material includes: No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: Chemical resistant gloves are recommended.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Typical Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

- Physical State: Liquid
- Color: Red
- Odor: Characteristic
- Odor Threshold: Not Determined

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

- Relative Density (at 15 °C): 0.88
- Flammability (Solid, Gas): Not Applicable
- Flash Point [Method] : >88°C (190°F) [ASTM D-93]
- Flammable Limits (Approximate volume % in air): LEL: Not Determined UEL: Not Determined
- Autoignition Temperature: Not Determined
- Boiling Point / Range: > 232°C (450°F)
- Decomposition Temperature: Not Determined
- Vapor Density (Air = 1): > 2 at 101 kPa
- Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C
- Evaporation Rate (n-butyl acetate = 1): Not Determined
- pH: Not Applicable
- Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
- Solubility in Water: Negligible
- Viscosity: 13 cSt (13 mm2/sec) at 40 °C | 5 cSt (5 mm2/sec) at 100°C
- Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

- Freezing Point: Not Determined
- Melting Point: Not Applicable

- Pour Point: -63°C (-81°F)
- DMSO Extract (mineral oil only), IP-346: < 3 %wt

SECTION 10: STABILITY AND REACTIVITY

Stability: Material is stable under normal conditions.

Conditions to Avoid: Open flames and high energy ignition sources.

Materials to Avoid: Strong oxidizers

Hazardous Decomposition Products: Material does not decompose at ambient temperatures.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on test data for structurally similar materials.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Contains a substance that may cause skin sensitization. Based on assessment of the components.
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.

Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

OTHER INFORMATION

For the product itself:

Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. An ingredient or ingredients that are classified as a skin sensitizer.

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

The following ingredients are cited on the lists below: None

--REGULATORY LISTS SEARCHED--

1 = NTP CARC	3 = IARC 1	5 = IARC 2B
2 = NTP SUS	4 = IARC 2A	6 = OSHA CARC

SECTION 12: ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material - Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Base oil component - Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component - Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component - Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

EMPTY CONTAINER WARNING

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, 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.

SECTION 14: TRANSPORTATION

Regulatory Information	UN Number	Proper Shipping Name	Hazard Class	Packing Group	Label(s)	RQ	Additional Information
US DOT	NA1993	Combustible liquid, n.o.s. (Hydrotreated Light Naphthenic Distillate (Petroleum))	Combustible Liquid	III	None		Placards required for bulk shipments (>119 Gal)
TDG	Not Regulated for Land Transport						
ARD	Not Regulated for Land Transport						
IATA	Not Regulated for Air Transport						
IMDG	Not Regulated for Sea Transport						

SECTION 15: REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Complies with the following national/regional chemical inventory requirements: AICS, DSL, IECSC, KECI, PICCS, TSCA

EPCRA SECTION 302: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
Distillates (Petroleum), Hydrotreated Light	64742-47-8	1, 17, 18
Hydrotreated light naphthenic distillate (petroleum)	64742-53-6	1, 4, 13, 17, 18
Zinc Alkyldithiophosphate	68649-42-3	15,19

INTERNATIONAL REGULATIONS:

WHMIS CLASSIFICATION

Class B3: Combustible Liquid

Class D2B: Toxic Material

WHMIS HAZARD SYMBOLS

EUROPEAN INVENTORY OF EXISTING CHEMICALS (EINECS):

Chemical Name	CAS Number	EINECS Number	R-Phrase
Distillates (Petroleum), Hydrotreated Light	64742-47-8	265-149-8	R 38, R 65, R 51/53
Hydrotreated light naphthenic distillate (petroleum)	64742-53-6	265-156-6	R 65
Zinc Alkyldithiophosphate	68649-42-3	272-028-3	R 38, R 51/53

EU RISK (R) AND SAFETY (S) PHRASES:

R 38: Irritating to skin

R 51/53: Toxic to Aquatic organisms, may cause long-term adverse effects in the aquatic environment

R 65: Harmful; May cause lung damage if swallowed

S 15: Keep away from heat

S 20: When using do not eat or drink

S 24/25: Avoid contact with skin and eyes

S 29: Do not empty into drains

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16: OTHER INFORMATION

National Fire Protection Association (NFPA) Ratings:

Health - 2 Flammability – 2 Reactivity - 0

Hazardous Materials Identification System (HMIS) Ratings:

Health – 2 Flammability – 2 Reactivity – 0

This safety data sheet contains the following revisions:

Revision Date	Description	Sections Affected
6/2/11	MSDS Version written	1-11
7/15/11	Updated to GHS criteria, additional sections added.	1-16
8/1/11	Updates	13, 15
9/4/14	Updates	1-13, 15, 16
10/08/15	Updates	1-16
12/17/2018	Updates	1-16
07/26/2021	Updates	1-16

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