Lubrication Technologies Material Safety Data SheetLubrication Technologies, Inc.Information:900 Mendelssohn Avenue NorthEmergency:California MateriaEmergency: Golden Valley, MN 55427-4309

763-545-0707 763-545-0707 Fax: 763-545-9256 ChemTrec: 800-424-9300

SECTION 1	CHEMICAL F	PRODUCT IDE	NTIFICATION		
Product:	NORSEMA	N DRILL ULTF	RA LUBE		
CAS Registry Number:	Mixture				
Synonyms:	N/A				
Item Number:	80597500				
Product Type:	Metalworking Fluid Additive				
Preparation/Revision Dat	e: 6/24/99	-			
SECTION 2	HAZARDOUS	6 COMPOSITI	ON INFORMATI	ON	
Ingredients	CAS # %	ACGIH TWA	OSHA PEL	OSHA STEL	Skin
Chlorinated paraffin waxes (CxH((x*2)+2-y))Cly	Mixture 100	5 mg/m ³ (oil mist)	5 mg/m ³ (oil mist)	5 mg/m ³ (oil mist)	No
SECTION 3	HAZARDOUS	S INDENTIFIC	ATION		
	- MAY CAUSE EYE IRRITATION - PROLONGED OR REPEATED CONTACT MAY CAUSE DERMATITIS - HOT VAPORS MAY CAUSE RESPIRATORY IRRITATION - HARMFUL IF SWALLOWED				
	This product contains materials that can cause mild eye irritation with discomfort, tearing, or blurring of vision.				
Skin Contact:	Low order of toxicity. Frequent or prolonged contact may irritate through skin sensiti- zation. Individuals with sensitive skin may develop dermatitis.				

Inhalation:	Not expected to be an inhalation hazard at ambient temperatures.
Ingestion:	Do not ingest. Primary danger is due to lung aspiration. Aspiration may lead to chemical pneumonitis, which is characterized by pulmonary edema and hemor- rhage and may be fatal. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking, and gagging are often noted at the time of aspiration. Gastrointestinal discomfort may develop, followed by vomiting with a further risk of aspiration. This product has laxa-tive properties and may result in abdominal cramps and diarrhea.
Other:	Not applicable.

SECTION 4	FIRST AID MEASURES
Eye Contact:	Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If irritation persists, call a physician. If material is hot, treat for thermal burns and take victim to hospital immediately.
Skin Contact:	Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention. If material is hot, sub merge injured area in cold water. If victim is severely burned. remove to a hospital immediately. Wash contaminated clothing before reuse.
Inhalation: Ingestion:	If overcome by inhalation of hot vapors, remove to fresh air. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary. DO NOT INDUCE VOMITING. Do not induce vomiting due to lung aspiration hazard

unless directed by a physician. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. If vomiting occurs, lower head below knees to avoid aspiration. Seek immediate medical attention. Not applicable.

SECTION 5	FIRE FIGHTING MEASURES			
Flash Point:	177°C (350°F) minimum by Cleveland Open Cup Tester.			
Flammable Limits:	Not determined.			
Extinguishing Media: Special Firefighting	Use dry chemical, foam, water fog, or carbon dioxide.			
Procedures:	Recommend wearing self-contained breathing apparatus. 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 liquid.			
Unusual Fire &				
Explosion Hazards:	Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. Heavy flammable vapors may settle along ground level and low spots to create an invisible fire hazard. The vapors may extend to sources of ignition and flash back.			
Byproducts of				
Combustion:	Oxides of carbon and chlorine. Combustion can produce hydrogen chloride (acid) gas. Additional byproducts include hydrogen sulfide, alkyl mercaptans and other sulfides.			
Autoignition				
Temperature:	Not determined.			
Explosion Data: Other:	Not determined. Care should always be exercised in dust/mist areas. Not determined.			

SECTION 6

Other:

ACCIDENTAL RELEASE MEASURES

Spill Control Procedures (Land):	Immediately turn off or isolate and source of ignition (pilot lights, electrical equipment, flames and heaters). Evacuate area and ventilate. Personnel wearing proper personal protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spill, once contained, may be picked up using explosion-proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. If a large spill occurs, notify appropriate authorities.
Spill Control	
Procedures (Water):	Remove from surface by skimming or with suitable absorbents. If a large spill occurs, notify appropriate authorities.
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. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14. CAUTION – If spilled material is cleaned up using a regulated solvent, the resulting
	waste mixture may be regulated.

Handling Procedures: Keep containers closed when not in use. Do not transfer to unmarked containers. Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106 – Flammable and Combustible Liquids. Empty containers retain product residue which

HANDLING AND STORAGE

SECTION 7

may exhibit hazards of material, therefore do not pressurize, cut, weld, glaze, or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

Storage Procedures: Store containers away from heat, sparks, open flame, or oxidizing materials.

Additional Information: No additional information.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
Personal Protection:	Applicable mainly to persons in repeated contact situations such as packaging of product, service and maintenance, and cleanup/spill control personnel.
Respiratory Protection	n:None required if airborne concentrations are maintained below threshold limits listed in Section 2. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. Where misting may occur, wear an MSHA/NIOSH approved (or equivalent) half-mask form dust/mist air-purifying respira tor.
Eye Protection:	Eye protection is always recommended. If material is handled such that it could be splashed into the eyes, wear safety glasses with side shields or vented /splash proof goggles (ANSI Z87.1 or approved equivalent).
Hand Protection:	Impervious gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption.
Other Protection:	Use of an apron and overboots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. If handling hot material use insulated protective equipment. Launder soiled clothes. Properly dispose of contaminated leather articles and other materials which cannot be decontaminated.
Local Control	
Measures:	Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. 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. Eyewash stations and showers should be available in areas where this material is used and stored.
Other:	Consumption of food and drink should be avoided in work areas where product is present. Avoid wearing materials and objects that may trap materials against the skin and cause an allergic skin reaction. Always wash hands and face with soap and water before eating, drinking or smoking.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES		
Vapor Pressure:	Not determined.		
API Gravity:	Not determined.		
Density:	9.7 lb/gal at 15.6°C (60.0°F).		
Specific Gravity:	1.2		
Solubility:	Negligible in water, soluble in hydrocarbon solvents.		
Percent Volatile:	Negligible.		
Vapor Density (air=1):	: Not determined		
Evaporation Rate			
(n-Butyl Acetate=1):	Negligible.		
Odor:	Mild hydrocarbon odor.		
Appearance:	yellow to amber, thick fluid.		
Viscosity:	32 cSt at 100°C (212°F)		
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960 cSt at 40°C (104°F)

Not determined.

Not determined.

Not applicable.

Boiling Point:

Pour Point:

Other:

SECTION 10	STABILITY AND REACTIVITY			
Stability: Conditions to Avoid: Incompatibility with	Material is stable at ambient conditions. Avoid high temperatures and product contamination.			
Other Materials: Decomposition	Avoid contact with strong oxidizers and reducing agents, strong alkalis.			
Products:	Smoke, carbon monoxide and dioxide, and other aldehydes of incomplete combustion. Oxides of carbon and chlorine. Hydrogen chloride gas may be evolved upon combus tion. Hydrogen sulfide and alkyl mercaptans and other sulfides may be released.			
Hazardous				
Polymerization:	Will not occur.			
Other:	Not applicable.			
SECTION 11	TOXICOLOGICAL INFORMATION			
Oral Toxicity:	Not determined.			
Dermal Toxicity:	Not determined.			
Inhalation Toxicity:	Not expected to be an inhalation hazard at ambient temperatures. Based on data from similar materials.			
Dermal Sensitization:	Not expected to be a primary skin irritant. Based on data from supplier. Prolonged or repeated contact may cause dermatitis.			
Chronic Toxicity:	Not determined.			
Carcinogenicity:	Chlorinated paraffins are a class of compounds that are similarly manufactured but which vary in molecular structure by carbon chain length and degree of chlorination. This particular product has not been shown to have adverse health effects. While tests have been conducted by the National Toxicology Program on other specific chlorinated paraffins, the relevance of these studies to this particular material, if any,			
Mutagonioity	has not been determined. Not determined.			
Mutagenicity: Reproductive Toxicity:				
Other:	Not determined.			
SECTION 12	ECOLOGICAL INFORMATION			
Environmental Toxicity:	This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.			
Environmental Fate:	No data available.			
Other:	Not applicable.			
SECTION 13	DISPOSAL CONSIDERATIONS			
Waste Disposal:	Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.			
Disposal	manayement should be in full compliance with ledelal, state, and local laws.			
Considerations:	Place used, contaminated, or excess material into disposable containers and dispose of in a manner consistent with local and state regulations. Contact local environmental			
Other:	or health authorities for approved disposal of this material. Most used oil is reclaimed or incinerated. Not applicable.			

SECTION 14

TRANSPORT INFORMATION

U.S. DOT Shipping	
Description: U.S. DOT Identification	Petroleum products, N.O.S.
	-
Number:	UN1268
U.S. DOT Hazard	
Classification:	Not applicable.
Packaging Class:	Not applicable.
Other:	See 49 CFR for additional requirements for descriptions, allowed modes of transport, and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3

SECTION 15

REGULATORY INFORMATION

Clean Water Act and Oil Pollution Act:				
	8802.			
TSCA:	All components of this material are listed in the U.S. TSCA Inventory.			
Other TSCA:	Not applicable.			
SARA TITIE III:	SARA Title III: Section 302/304 Extremely Hazardous Substances: None Section 311, 312 Hazard Categorization:			
	Acute (immediate health effects):	NO		
	Chronic (delayed health effects):	NO		
	Fire (hazard):	NO		
	Reactivity (hazard):	NO		
	Pressure (sudden release hazard):	NO		
	Section 313 Toxic Chemicals:	This product is not		
	considered to be			
		subject to the Section		
		313 provisions of SARA		
050014	—	Title III.		
CERCLA:	For stationary sources – reportable quantity:	None.		
	Due to:	Not applicable.		
	For moving sources – reportable quantity: Due to:	None.		
Other:	Not applicable.	Not applicable.		
ould.				

SECTION 16	OTHER INFORMATION			
	NFPA 704	NPCA - HMIS	Кеу	
Health:	2	1	0 = Minimal	
Fire:	1	1	1 = Slight	
Reactivity:	1	1	2 = Moderate	
Specific Hazard:	None	N/A	3 = Serious	
Protection Index:	N/A	В	4 = Severe	
Precautionary Labels:	- May Cause Eye Irritation			
-	- Prolonged or Repeated Contact May Cause Dermatitis - Hot Vapors May Cause Respiratory Irritation			

- HARMFUL IF SWALLOWED

This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secrets are used, Lube-Tech must rely upon information provided by those materials manufacturers or distributors.

Prepared By:	Robert D. Bentz
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Revisions:

Modified MSDS format to fit the ANSI 16 section format. Updated component information. Updated synonyms list.