



SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

Section 1: Product and Company Identification

Product Name:	Radnor Wire Lube Pads and Lube Pad Lubricant
Product Identifier:	Treated Wire Lube Pads
Product Use:	Reduce friction from wire feeding and improve the weld process
Item Code(s):	64000144, 64000146
SDS Code:	041R
Supplier:	Radnor
Physical Address:	259 North Radnor - Chester Road - Suite 100 Radnor, PA 19087-5283
Emergency Phone:	866-734-3438
Date of Preparation:	March 22, 2019
OSHA Regulatory Status:	Not Regulated
WHMIS Classification:	Not Regulated

Section 2: Hazard Identification

Health Hazards

Eye irritation	Category 2A
Skin irritation	Category 2

Environmental Hazards

Acute aquatic toxicant	Category 3
Chronic aquatic toxicant	Category 3

OSHA Defined Hazards

Not Classified	
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GHS Label elements, including precautionary statements



Appearance: White Liquid

Physical State: Liquid

Odor: Hydrocarbon or sulfurous

Emergency Overview

WARNING

Hazard Statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H412	Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

P264	Wash thoroughly after handling
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	IF SKIN irritation occurs: Get medical advice/attention
P337 + P313	IF EYE irritation persists: Get medical advice/attention
P362	Take off contaminated clothing and wash before reuse

Precautionary Statements - Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations
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HAZARDS NOT OTHERWISE CLASSIFIED (HNOC): None

Section 3: Composition and Information on Ingredients

CHEMICAL NAME	CAS #	%
Highly refined mineral oil (C15-C50)	Mixture	70 - 90% wt/wt
Sodium sulfonate	68608-26-4	0.1 - 5% wt/wt
Diethylene glycol	111-46-6	0.1 - 2.5% wt/wt
Glycol ethers	Trade Secrete	0.1 - 1.5% wt/wt
2,6-di-tert-butylphenol	128-39-2	0.1% - 1% wt/wt

Section 4: First Aid Measures

EYE: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.

SKIN: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

INGESTION: If swallowed, get medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

INHALATION: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

Most important symptoms and effects, both acute and delayed:

IMMEDIATE HEALTH EFFECTS:

EYE: Contact with the eyes causes severe irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

SKIN: Contact with the skin causes irritation. Skin contact may cause drying or defatting of the skin. Contact with the skin is not expected to cause an allergic skin response. Symptoms may include pain, itching, discoloration, swelling, and blistering.

INGESTION: May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

INHALATION: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

DELAYED OR OTHER HEALTH EFFECTS: Not classified

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Not Applicable

Section 5: Fire Fighting Measures

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Protection of Fire Fighters

FIRE FIGHTING INSTRUCTIONS: This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

Section 6: Accidental Release Measures

PROTECTIVE MEASURES: Eliminate all sources of ignition in vicinity of spilled material.

SPILL MANAGEMENT: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

REPORTING: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800)424-8802 as appropriate or required.

Section 7: Handling and Storage

GENERAL HANDLING INFORMATION: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

PRECAUTIONARY MEASURES: Do not get in eyes, on skin, or on clothing. Do not breathe oil mist at concentrations above the recommended mineral oil mist exposure limit. Do not get in eyes. Do not taste or swallow. Wash thoroughly after handling.

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

CONTAINER WARNINGS: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, 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. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

Section 8: Exposure Controls / Personal Protection

GENERAL CONSIDERATIONS: Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS: Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

SKIN PROTECTION: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted.

SUGGESTED MATERIALS FOR PROTECTIVE GLOVES INCLUDE: Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Nitrile Rubber, Silver Shield, Viton.

RESPIRATORY PROTECTION: No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

OCCUPATIONAL EXPOSURE LIMITS:

Components	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15-C50)	ACGIH	5 mg/m3	10 mg/m3	-	-
Highly refined mineral oil (C15-C50)	OSHA Z-1	5 mg/m3	-	-	-
Sodium sulfonate	Not Applicable	-	-	-	-
Diethylene glycol	Not Applicable	-	-	-	-
Glycol ethers	ACGIH	20 ppm weight	-	-	A3
Glycol ethers	OSHA Z-1	240 mg/m3	-	-	Skin
2,6-di-tert-butylphenol	Not Applicable	-	-	-	-

Consult local authorities for appropriate values.

Section 9: Physical and Chemical Properties

Attention: the data below are typical values and do not constitute a specification.

COLOR:	Brown
PHYSICAL STATE:	Liquid
ODOR:	Hydrocarbon or sulfurous
ODOR THRESHOLD:	No data available
PH:	Not Applicable
VAPOR PRESSURE:	<0.01 mmHg@ 37.8 °C (100 °F)
VAPOR DENSITY (AIR = 1):	>1 Minimum
INITIAL BOILING POINT:	100°C (212°F) Minimum
SOLUBILITY:	Forms emulsion with water
FREEZING POINT:	Not Applicable
DENSITY:	0.92 kg/l@ 15°C (59°F) (Typical)
VOLATILE ORGANIC COMPOUNDS (VOC):	44 g/l (Typical)
VISCOSITY:	28 mm ² /s@ 40°C (104° F) Minimum
EVAPORATION RATE:	No data available
DECOMPOSITION TEMPERATURE:	No data available
OCTANOL/WATER PARTITION COEFFICIENT:	No data available

FLAMMABLE PROPERTIES:

FLAMMABILITY (SOLID, GAS):	No Data Available
FLASHPOINT:	(Cleveland Open Cup) 160 °C (320 °F) Minimum
AUTOIGNITION:	No data available
FLAMMABILITY (EXPLOSIVE) LIMITS:	
Lower (% by volume in air):	Not Applicable
Upper (% by volume in air):	Not Applicable

Section 10: Stability and Reactivity

REACTIVITY: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

CHEMICAL STABILITY: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

INCOMPATIBILITY WITH OTHER MATERIALS: Not applicable

HAZARDOUS DECOMPOSITION PRODUCTS: None known (None expected)

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

Section 11: Toxicological Information

Information on toxicological effects

SERIOUS EYE DAMAGE/IRRITATION: The eye irritation hazard is based on evaluation of data for product components.

SKIN CORROSION/IRRITATION: The skin irritation hazard is based on evaluation of data for product components.

SKIN SENSITIZATION: The skin sensitization hazard is based on evaluation of data for product components.

ACUTE DERMAL TOXICITY: The acute dermal toxicity hazard is based on evaluation of data for product components.

ACUTE ORAL TOXICITY: The acute oral toxicity hazard is based on evaluation of data for product components.

ACUTE INHALATION TOXICITY: The acute inhalation toxicity hazard is based on evaluation of data for product components.

ACUTE TOXICITY ESTIMATE: Not Determined

GERM CELL MUTAGENICITY: The hazard evaluation is based on data for components or a similar material.

CARCINOGENICITY: The hazard evaluation is based on data for components or a similar material.

REPRODUCTIVE TOXICITY: The hazard evaluation is based on data for components or a similar material.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE: The hazard evaluation is based on data for components or a similar material.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains diethylene glycol (DEG). The estimated oral lethal dose is about 50 cc (1.6 oz) for an adult human. DEG has caused the following effects in laboratory animals: liver abnormalities, kidney damage and blood abnormalities. It has been suggested as a cause of the following effects in humans: liver abnormalities, kidney damage, lung damage and central nervous system damage.

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

Section 12: Ecological Information

ECOTOXICITY: This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from the properties of the individual components.

MOBILITY: No data available.

PERSISTENCE AND DEGRADABILITY: This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

POTENTIAL TO BIOACCUMULATE:

BIOCONCENTRATION FACTOR: No data available.

OCTANOL/WATER PARTITION COEFFICIENT: No data available

Section 13: Disposal Considerations

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

Section 14: Transportation Information

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING DESCRIPTION: NOT REGULATED AS A HAZARDOUS MATERIAL UNDER 49 CFR

IMO/IMDG SHIPPING DESCRIPTION: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA SHIPPING DESCRIPTION: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE: Not applicable

Section 15: Regulatory Information

EPCRA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects:	YES
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1
01-2A=IARC Group 2A
01-2B=IARC Group 2B
02=NTP Carcinogen
03=EPCRA 313
04=CA Proposition 65
05=MA RTK
06=NJ RTK
07=PA RTK

THE FOLLOWING COMPONENTS OF THIS MATERIAL ARE FOUND ON THE REGULATORY LISTS INDICATED:

Glycol ethers 05, 06, 06, 07

CHEMICAL INVENTORIES: All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

Additional notifications in Canada may be required 90 days prior to use other than as a lubricating oil additive.

NEW JERSEY RTK CLASSIFICATION: Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Cutting oil)

Section 16: Other Information

NFPA ratings Health: 1 Flammability: 1 Reactivity: 0

HMIS® ratings Health: 2 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association {for HMIS ratings}.

N/E	Not Established
N/Av	Not Available
N/Ap	Not Applicable
IARC	International Agency for Research on Cancer
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute for Occupational Health and Safety
TLV-TWA	Threshold Limit, Time Weighted Average
NAERG	North American Emergency Response Guidebook
WHMIS	Workplace Hazardous Materials Information System

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