

REC'D APR 06 2000

MATERIAL SAFETY DATA SHEET

2155

Welch Catalog No. 1407K DUOSEAL Vacuum Pump Oil

01L00003

SECTION 1: IDENTIFICATION

Chemical Name: Highly-Refined Petroleum Lubricant Oils
Synonyms: DUOSEAL Vacuum Pump Oil
CAS Registry No.: 64741-88-4
Manufacturer's Name: Welch Vacuum / Thomas Industries
7300 North Linder Avenue, P.O. Box 183
Skokie, IL 60076-0183
Telephone Number for General Information: (847) 676-8800 Ext. 1

SECTION 2: HAZARDS IDENTIFICATION

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: Minimal eye irritation may result from short term contact with liquid, mist, and/or vapor.
Skin Contact: This material can cause mild skin irritation from prolonged or repeated skin contact. Injection under the skin, in muscle, or into the blood stream can cause irritation, inflammation, swelling, fever, and systemic effects and mild central nervous system depression. Injection of pressurized hydrocarbons can cause severe, permanent tissue damage. Initial symptoms may be minor. Injection of petroleum hydrocarbons requires immediate medical attention.
Ingestion: If swallowed in quantities greater than one teaspoon, this material can cause a laxative effect.
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 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.

SECTION 3: FIRST AID MEASURES

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 blood stream, 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. If large amounts are swallowed or irritation or discomfort occurs, 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 injections requires prompt surgical debridement.

2155

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

1) Highly-Refined Petroleum Lubricant Oils

Applicable Workplace Exposure Levels

TWA: 5 STEL: 10 (mg/M³) from ACGIH (TLV)

TWA: 5 (mg/M³) from OSHA (PEL)

TWA: 5 STEL: 10 (mg/M³) from NIOSH

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Color:	Light Amber	Odor:	Mild Petroleum Odor
Specific Gravity:	0.88(Water = 1)	pH:	Not applicable	Vapor Density:	GT 1 (Air = 1)
Boiling Point/Range:	Not available	Melting/Freezing Point:	Not available		
Vapor Pressure:	LT 1mm of Hg (@ 20°C)	Viscosity (cSt @ 40°C):	64		
Solubility in Water:	Insoluble in cold water	Volatile Characteristics:	Negligible volatility		
Additional Properties:	No additional information				

SECTION 9: STABILITY AND REACTIVITY

Chemical Stability: Stable **Hazardous Polymerization:** Not expected to occur.
Conditions to Avoid: Keep away from extreme heat, sparks, open flame and strong oxidizing conditions.
Materials Incompatibility: Oxidizing materials
Hazardous Decomposition Products: No additional hazardous decomposition products were identified other than the combustion products identified in section 4 of this MSDS.

SECTION 10: TOXICOLOGICAL INFORMATION

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 toxicity 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 11: ECOLOGICAL INFORMATION

Eco-toxicity: 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: An environmental fate analysis has not been conducted on this specific 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.

2155

SECTION 12: DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can charge 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 13: 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
Packing Group(s): Not applicable. **UN/NA ID:** Not applicable.
Reportable Quantity: A Reportable Quantity (RQ) has not been established for any components of this material.
Placards: Not applicable.
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 14: 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 (RQs) 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. This product or refinery stream is not known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of a spill.
CWA: This material is classified as an oil under Section 311 of the Clean Air 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 product is not known to contain any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.
New Jersey Right-To-Know Label: Petroleum Oil
Additional Regulatory Remarks: No additional regulatory remarks.

2155

All statements, information, and data provided in this Material Safety Data Sheet are believed to be accurate and reliable, but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied on our part. Users should make their own investigations to determine the suitability of the information of products for their particular purpose.

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