



Material Safety Data Sheet

Material Name: HEAT TRANSFER/QUENCH OIL

ID: 82999

*** Section 1 - Chemical Product and Company Identification ***

Product Code: Prefix D52

Product Use: Machining coolant for quenching and heat treating. If this product is used in combination with other products, refer to the Material Safety Data Sheets for those products.

Synonyms: Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant;

Safety-Kleen Systems, Inc.

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Emergency # 1-800-468-1760

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APPROVED BY: MSDS Task Force

*** Section 2 - Hazardous Identification ***

EMERGENCY OVERVIEW

Appearance

Amber liquid, petroleum odor.

Signal Word

CAUTION!

Health Hazards

May be harmful if swallowed.

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

POTENTIAL HEALTH EFFECTS

Inhalation (Breathing)

This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs).

Eyes

May cause irritation.

Skin

May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

Ingestion (Swallowing)

May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Aspiration hazard: breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

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Chronic

Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

Cancer Information

No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

Environmental Hazards

Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
64742-58-1	Lubricating oils, petroleum, hydrotreated spent	55-60
72623-83-7	Lubricating oils (petroleum), C>25, hydrotreated bright stock	40*
64742-62-7	Residual oils (petroleum), solvent dewaxed	40*
64742-01-4	Residual oils (petroleum), solvent refined	40*
Not available**	Sodium sulfonate	0.1-1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Oil mist, mineral (8012-95-1).

*Only one of the above listed Bright Stocks will be present at anytime at the indicated WT%.

**Supplier advises that this is a trade secret.

*** Section 4 - First Aid Measures ***

Inhalation (Breathing)

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

Eyes

If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

Skin

Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency.

Ingestion (Swallowing)

Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Notes to Physicians

Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

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*** Section 5 - Fire Fighting Measures ***

Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

Conditions of Flammability

Sparks or flame. Product may burn, but does not ignite readily.

Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

Protective Equipment For Firefighting

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Equipment/Instructions

Keep storage containers cool with water spray.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Fire and Explosion Hazards

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

*** Section 6 - Accidental Release Measures ***

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk.

Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE**

CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or absorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures

Keep away from sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

Shipping and Storing

Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

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*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

Component Exposure Limits

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

ACGIH: 5 mg/m3 TWA (excluding metal working fluids, highly & severely refined, inhalable fraction, related to Oil mist, mineral)

OSHA Final: 5 mg/m3 TWA (related to Oil mist, mineral)

OSHA Vacated: 5 mg/m3 TWA (related to Oil mist, mineral)

NIOSH: 5 mg/m3 TWA (related to Oil mist, mineral)
10 mg/m3 STEL (related to Oil mist, mineral)

Residual oils (petroleum), solvent dewaxed (64742-62-7)

ACGIH: 5 mg/m3 TWA (excluding metal working fluids, highly & severely refined, inhalable fraction, related to Oil mist, mineral)

OSHA Final: 5 mg/m3 TWA (related to Oil mist, mineral)

OSHA Vacated: 5 mg/m3 TWA (related to Oil mist, mineral)

NIOSH: 5 mg/m3 TWA (related to Oil mist, mineral)
10 mg/m3 STEL (related to Oil mist, mineral)

Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)

ACGIH: 5 mg/m3 TWA (excluding metal working fluids, highly & severely refined, inhalable fraction, related to Oil mist, mineral)

OSHA Final: 5 mg/m3 TWA (related to Oil mist, mineral)

OSHA Vacated: 5 mg/m3 TWA (related to Oil mist, mineral)

NIOSH: 5 mg/m3 TWA (related to Oil mist, mineral)
10 mg/m3 STEL (related to Oil mist, mineral)

Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protective Measures, such as 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 regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

Personal Protective Equipment: Respiratory

Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Personal Protective Equipment: Eyes/Face

Eye protection: Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Personal Protective Equipment: Skin

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

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Personal Protective Equipment: Personal Hygiene

Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with this product.

Other Personal Protective Equipment

Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

*** Section 9 - Physical & Chemical Properties ***

Appearance/Odor :	Amber liquid, petroleum odor.	pH:	Not applicable
Boiling Point:	475°F (246°C) (minimum)	Odor Threshold:	Not available
Solubility (H2O):	Insoluble	Melting Point:	Not available [pour point -27°F (-3°C) (maximum)]
Density:	7.3 LB/US gal (890 g/L) (approximately)	Specific Gravity:	0.87 (water = 1) (approximately)
Evaporation Rate:	Not available	Octanol/H2O Coeff.:	Not available
LFL:	Not available	Auto Ignition Temperature:	Not Available
UFL:	Not available	Flash Point:	374°F (190°C) (minimum) (Cleveland Open Cup)
Vapor Pressure:	less than 0.1 mm Hg at 68°F (20°C)	Viscosity:	Not available.
		Vapor Density:	Not available

*** Section 10 - Chemical Stability & Reactivity Information ***

Stability

Stable under normal temperatures and pressures.

Incompatibility

Avoid oxidizing agents.

Reactivity

Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Hazardous Decomposition Products

None under normal temperatures and pressures., See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

Conditions To Avoid

Avoid sparks or flame when not in use.

*** Section 11 - Toxicological Information ***

Toxicity Data

Component Analysis - LD50/LC50

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Dermal LD50 Rabbit >4480 mg/kg; Oral LD50 Rat >2000 mg/kg

Residual oils (petroleum), solvent refined (64742-01-4)

Dermal LD50 Rabbit >2000 mg/kg; Inhalation LC50 Rat 2.18 mg/L 4 h; Oral LD50 Rat >5000 mg/kg

Residual oils (petroleum), solvent dewaxed (64742-62-7)

Dermal LD50 Rabbit >2000 mg/kg; Inhalation LC50 Rat 2.18 mg/L 4 h; Oral LD50 Rat >5000 mg/kg

Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)

Oral LD50 Rat >5000 mg/kg

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Acute Effects

May be harmful if swallowed., May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin., May be harmful if ingested., Aspiration Hazard: Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Repeated Dose Effects

Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

Component Carcinogenicity

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (highly and severely refined); A2 - Suspected Human Carcinogen (poorly and mildly refined, related to Oil mist, mineral)

Residual oils (petroleum), solvent dewaxed (64742-62-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (highly and severely refined); A2 - Suspected Human Carcinogen (poorly and mildly refined, related to Oil mist, mineral)

Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (highly and severely refined); A2 - Suspected Human Carcinogen (poorly and mildly refined, related to Oil mist, mineral)

Target Organ Effects

Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation.

Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Mutagenicity

Experimental evidence suggests that this product does not cause mutagenesis.

Reproductive Toxicity

Bases on best current information, there is no known reproductive toxicity associated with this product. Also see **SECTION 15: CALIFORNIA.**

Teratogenicity

Based on best current information, there is no known teratogenicity associated with this product.

Toxicologically Synergistic Products

Based on best current information, there are no known toxicologically synergistic products associated with this product.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

No information available for this product.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Brachydanio rerio	79.6 mg/L [semi-static]	
96 Hr LC50 Pimephales promelas	3.2 mg/L [semi-static]	

Residual oils (petroleum), solvent refined (64742-01-4)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	
48 Hr EC50 Daphnia magna	>1000 mg/L	

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Residual oils (petroleum), solvent dewaxed (64742-62-7)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	
48 Hr EC50 Daphnia magna	>1000 mg/L	

Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Lepomis macrochirus	>10000 mg/L	

Persistence/Degradability

No information available for the product.

Bioaccumulation/Accumulation

No information available for the product.

Mobility in Environmental Media

No information available for the product.

Other Adverse Effects

No information available for the product.

*** Section 13 - Disposal Considerations ***

Disposal Instructions

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

US EPA Waste Number & Descriptions

This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, this product can be managed in accordance with the used oil exemption under 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

*** Section 14 - Transportation Information ***

Emergency Response Guide Number

Not applicable. Reference *North American Emergency Response Guidebook*

DOT Shipping Name: Not regulated as a hazardous material.

TDG Shipping Name: Not regulated as a dangerous good.

*** Section 15 - Regulatory Information ***

Volatile Organic Compounds (As Regulated)

Negligible (as per 40 CFR Part 51.100(s))

SARA Sections 311/312

This product poses the following health hazard(s) as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard

Delayed (Chronic) Health Hazard

SARA 302/304

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

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SARA Section 313

Component Analysis

This product does not contain any "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

Component Analysis

Component	CAS #	TSCA
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	Yes
Residual oils (petroleum), solvent refined	64742-01-4	Yes
Residual oils (petroleum), solvent dewaxed	64742-62-7	Yes
Lubricating oils (petroleum), C.25, hydrotreated brightstock	72623-83-7	Yes

State Regulations

This product may contain detectable amounts of arsenic CAS 7440-38-2, cadmium CAS 7440-43-9, ethyl acrylate CAS 140-88-5, and lead CAS 7439-92-1 from additives. This product may contain detectable amounts of benzo(a)anthracene CAS 56-55-3, benzo(k)fluoranthene CAS 207-08-9, benzo(a)pyrene CAS 50-32-8, benzo(b)fluoranthene CAS 205-99-2, chrysene CAS 218-01-9, dibenz(a,h)anthracene CAS 53-70-3, and indeno(1,2,3-cd)pyrene CAS 193-39-5. WARNING: These chemicals are known to the State of California to cause cancer. Our testing of these products indicates that these chemicals are not always detectable.

This product may contain detectable amounts of cadmium CAS 7440-43-9 and lead CAS 7439-92-1 from additives. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
Lubricating oils, petroleum, hydrotreated spent (¹related to: Oil mist, mineral)	64742-58-1	Yes¹	Yes¹	Yes¹	Yes¹	Yes¹
Residual oils (petroleum), solvent dewaxed (¹related to: Oil mist, mineral)	64742-62-7	Yes¹	Yes¹	Yes¹	Yes¹	Yes¹
Lubricating oils (petroleum), C>25, hydrotreated bright stock (¹related to: Oil mist, mineral)	72623-83-7	Yes¹	Yes¹	Yes¹	Yes¹	Yes¹

Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

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Component Analysis

Component	CAS #	CAN
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	DSL
Residual oils (petroleum), solvent refined	64742-01-4	DSL
Residual oils (petroleum), solvent dewaxed	64742-62-7	DSL
Lubricating oils (petroleum), C>25, hydrotreated bright stock	72623-83-7	DSL

Canadian WHMIS Information

Class D2B - Irritating to eyes and skin.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Lubricating oils, petroleum, hydrotreated spent (64742-58-1) 1 % (related to Oil mist, mineral)

Residual oils (petroleum), solvent dewaxed (64742-62-7) 1 % (related to Oil mist, mineral)

Lubricating oils (petroleum), C>25, hydrotreated bright stock (72623-83-7)

1 % (related to Oil mist, mineral)

Canadian Environmental Protection Act (CEPA)

All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

* * * **Section 16 - Other Information** * * *

Label/Other Information

Not available.

Revision Information

Reformatted. Regulatory update.

Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82999