

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Heat Transfer Cleaning Flushing Fluid

#### 1.2. Recommended use and restrictions on use

Recommended use : Lubricant  
Restrictions on use : No additional information available

#### 1.3. Supplier

D-A Lubricant Company, Inc.  
801 Edwards Dr  
Lebanon, IN 46052  
T 317-923-5321, Toll Free 1-800-873-2582  
[www.dalube.com](http://www.dalube.com)

#### 1.4. Emergency telephone number

Emergency number : 1-800-899-9004 Toll-Free USA/CAN 24 hours

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Not classified

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

No labelling applicable

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%)	(CAS-No.) 64742-54-7	80 - 90	Asp. Tox. 1, H304
Zinc alkyl dithiophosphate	(CAS-No.) 68649-42-3	1 - <3	Eye Dam. 1, H318 Aquatic Chronic 2, H411
Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%)	(CAS-No.) 64742-65-0	0.5 - 2.5	Asp. Tox. 1, H304

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

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First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Inhalation of vapours may cause respiratory irritation.

Symptoms/effects after skin contact : Repeated or prolonged skin contact may cause dermatitis and defatting.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Reactivity : No dangerous reactions known.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapour and mist.

#### 6.1.1. For non-emergency personnel

Protective equipment : Refer to section 8.2.

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Refer to section 8.2.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place.

Incompatible products : Strong oxidizers. Strong acids. Strong bases.

Incompatible materials : Sources of ignition. Direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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<b>Distillates (petroleum), hydrotreated heavy paraffinic (DMSO &lt; 3%) (64742-54-7)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>Zinc alkyl dithiophosphate (68649-42-3)</b>		
Not applicable		
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO &lt; 3%) (64742-65-0)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> oil mist
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> oil mist
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Ensure good ventilation of the work station.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear suitable gloves resistant to chemical penetration. Use rubber gloves.

#### Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber
Odour	: petroleum
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 185 °C
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 110 mm <sup>2</sup> /s @ 40 °C
Viscosity, dynamic	: No data available

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Explosive limits : No data available  
Explosive properties : No data available  
Oxidising properties : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.53 mg/l/4h

#### Zinc alkyl dithiophosphate (68649-42-3)

LD50 oral rat	3100 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
ATE US (oral)	3100 mg/kg bodyweight

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified. (Zinc alkyl dithiophosphate not irritating <10%.)  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified  
Viscosity, kinematic : 110 mm<sup>2</sup>/s @ 40 °C

Likely routes of exposure : Inhalation. Skin and eye contact.  
Symptoms/effects after inhalation : Inhalation of vapours may cause respiratory irritation.

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Symptoms/effects after skin contact : Repeated or prolonged skin contact may cause dermatitis and defatting.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<b>Distillates (petroleum), hydrotreated heavy paraffinic (DMSO &lt; 3%) (64742-54-7)</b>	
EC50 crustacea	> 10000 mg/l
<b>Zinc alkyl dithiophosphate (68649-42-3)</b>	
LC50 fish 1	4.4 mg/l 96 h oncorhynchus mykiss
EC50 crustacea	1.2 mg/l 48 h

#### 12.2. Persistence and degradability

<b>Heat Transfer Cleaning Flushing Fluid</b>	
Persistence and degradability	Not established.

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO &lt; 3%) (64742-65-0)</b>	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

<b>Heat Transfer Cleaning Flushing Fluid</b>	
Bioaccumulative potential	Not established.

<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO &lt; 3%) (64742-65-0)</b>	
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

<b>Heat Transfer Cleaning Flushing Fluid</b>	
Ecology - soil	Not established.

#### 12.5. Other adverse effects

Other information : Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.  
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

#### 15.2. International regulations

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### CANADA

**Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

**Zinc alkyl dithiophosphate (68649-42-3)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

**Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

### EU-Regulations

**Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**Zinc alkyl dithiophosphate (68649-42-3)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### National regulations

**Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)**

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on NZIoC (New Zealand Inventory of Chemicals)

**Zinc alkyl dithiophosphate (68649-42-3)**

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on Taiwan National Chemical Inventory  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Not listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

**Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)**

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on KECI (Korean Existing Chemicals Inventory)  
Listed on Taiwan National Chemical Inventory  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

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Data sources : ACGIH (American Conference of Government Industrial Hygienists). European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Other information : None.

Full text of H-statements:

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Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

### Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average

NFPA health hazard

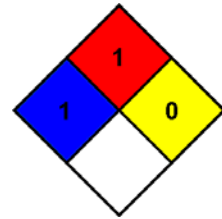
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*