



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>Hydraulic ZF46</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Lubricant
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Irving Blending & Packaging PO Box 1169 Saint John, NB E2L 4E6 CA Phone: 1.800.574.5823 Emergency Phone: 1.800.424.9300 (CHEMTREC) Emergency Phone: 1.506.648.3060
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>WHMIS 2015 defined hazards</b>	Not classified
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)</b>	None known
<b>WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)</b>	None known
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	Not applicable.

## 3. Composition/Information on Ingredients

<b>Mixture</b>			
<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
Lubricating oils, petroleum, hydrotreated spent		64742-58-1	80-100
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy		64742-70-7	5-10
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling		68477-31-6	0.1-1

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition comments** Non-hazardous by WHMIS/OSHA criteria

## 4. First Aid Measures

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

<b>Skin contact</b>	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

---

## 5. Fire Fighting Measures

---

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Oxides of phosphorus.

---

## 6. Accidental Release Measures

---

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk.  Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

---

## 7. Handling and Storage

---

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Use care in handling/storage. Avoid contact with eyes, skin and clothing.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

---

## 8. Exposure Controls/Personal Protection

---

### Occupational exposure limits

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	TWA	1590 mg/m <sup>3</sup>	
		400 ppm	
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	STEL	10 mg/m <sup>3</sup>	Mist.
	TWA	5 mg/m <sup>3</sup>	Mist.

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value	Form
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	TWA	0.2 mg/m3	Mist.

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value	Form
Lubricating oils, petroleum, hydrotreated spent (CAS 64742-58-1)	TWA	5 mg/m3	Inhalable fraction.
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	TWA	5 mg/m3	Inhalable fraction.

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value	Form
Lubricating oils, petroleum, hydrotreated spent (CAS 64742-58-1)	TWA	5 mg/m3	Inhalable fraction.

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value	Form
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	TWA	1590 mg/m3	
		400 ppm	
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	PEL	400 mg/m3	
		100 ppm	
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	PEL	5 mg/m3	Mist.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Lubricating oils, petroleum, hydrotreated spent (CAS 64742-58-1)	TWA	5 mg/m3	Inhalable fraction.
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	TWA	5 mg/m3	Inhalable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	TWA	400 mg/m3	
		100 ppm	
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	STEL	10 mg/m3	Mist.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
	TWA	5 mg/m3	Mist.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

**Canada - Alberta OELs: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

**Canada - British Columbia OELs: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

**Canada - Manitoba OELs: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

**Canada - Ontario OELs: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

**Canada - Quebec OELs: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

**Canada - Saskatchewan OELs: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Arsenic (CAS 7440-38-2)	Can be absorbed through the skin.
-------------------------	-----------------------------------

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

1,4-Dioxane (CAS 123-91-1)	Can be absorbed through the skin.
Benzenamine (CAS 62-53-3)	Can be absorbed through the skin.
Ethyl acrylate (CAS 140-88-5)	Can be absorbed through the skin.

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Impervious gloves. Confirm with reputable supplier first.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection**

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

**Thermal hazards**

Not applicable.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and Chemical Properties**

<b>Appearance</b>	Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.

<b>Color</b>	Yellow
<b>Odor</b>	Petroleum
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Pour point</b>	-22 °F (-30 °C)
<b>Specific gravity</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Flash point</b>	420.8 °F (216.0 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Negligible
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	7.2 cSt @ 100°C 45.6 cSt @ 40°C
<b>Other information</b>	
<b>Density</b>	0.8568 @ 15°C

---

## 10. Stability and Reactivity

---

<b>Reactivity</b>	This product may react with oxidizing agents.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Oxides of phosphorus.

---

## 11. Toxicological Information

---

<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Direct contact with eyes may cause temporary irritation.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Not available	
	Rabbit	> 1900 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Not available	
	Rat	> 4980 mg/m <sup>3</sup> , 4 Hours > 5 mg/L, 4 Hours
<i>Oral</i>		
LD50	Rat	> 25 ml/kg 4820 mg/kg 2551 mg/kg
Lubricating oils, petroleum, hydrotreated spent (CAS 64742-58-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 4480 mg/kg
	Rat	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, 24 Hours, ECHA > 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Rat	< 5.7 mg/L, 4 Hours, ECHA > 5.5 mg/L, 4 Hours, ECHA > 5.3 mg/L, 4 Hours, ECHA > 5.2 mg/L, 4 Hours, ECHA > 4 mg/L, 4 Hours, ECHA > 3.9 mg/L, 4 Hours, ECHA 2.2 mg/L, 4 Hours, ECHA
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, ECHA > 2000 mg/kg, ECHA 5000 mg/kg, ECHA
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Exposure minutes</b>	Not available.	
<b>Erythema value</b>	Not available.	
<b>Oedema value</b>	Not available.	
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Corneal opacity value</b>	Not available.	
<b>Iris lesion value</b>	Not available.	
<b>Conjunctival reddening value</b>	Not available.	
<b>Conjunctival oedema value</b>	Not available.	
<b>Recover days</b>	Not available.	

## Respiratory or skin sensitization

### ACGIH sensitization

Propylene oxide (CAS 75-56-9)

Dermal sensitization

### Canada - British Columbia OELs: Respiratory or skin sensitiser

Ethyl acrylate (CAS 140-88-5)

Capable of causing respiratory, dermal or conjunctival sensitization.

Propylene oxide (CAS 75-56-9)

Capable of causing respiratory, dermal or conjunctival sensitization.

### Canada - Manitoba OELs Hazard: Dermal sensitization

Propylene oxide (CAS 75-56-9)

Dermal sensitization

### Canada - Saskatchewan OELs Hazard Data: Sensitiser

Propylene oxide (CAS 75-56-9)

Sensitizer.

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Contains < 3% (w/w) DMSO-extract

### ACGIH Carcinogens

1,4-Dioxane (CAS 123-91-1)

A3 Confirmed animal carcinogen with unknown relevance to humans.

Arsenic (CAS 7440-38-2)

A1 Confirmed human carcinogen.

Benzenamine (CAS 62-53-3)

A3 Confirmed animal carcinogen with unknown relevance to humans.

Cadmium (CAS 7440-43-9)

A2 Suspected human carcinogen.

Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)

A2 Suspected human carcinogen.

Lead (CAS 7439-92-1)

A3 Confirmed animal carcinogen with unknown relevance to humans.

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

A2 Suspected human carcinogen.

Naphthalene (CAS 91-20-3)

A3 Confirmed animal carcinogen with unknown relevance to humans.

Oxirane (CAS 75-21-8)

A2 Suspected human carcinogen.

Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)

A2 Suspected human carcinogen.

Propylene oxide (CAS 75-56-9)

A3 Confirmed animal carcinogen with unknown relevance to humans.

### Canada - Alberta OELs: Carcinogen category

Arsenic (CAS 7440-38-2)

Confirmed human carcinogen.

Cadmium (CAS 7440-43-9)

Suspected human carcinogen.

Oxirane (CAS 75-21-8)

Suspected human carcinogen.

### Canada - Manitoba OELs: carcinogenicity

1,4-DIOXANE (CAS 123-91-1)

Confirmed animal carcinogen with unknown relevance to humans.

ANILINE (CAS 62-53-3)

Confirmed animal carcinogen with unknown relevance to humans.

Arsenic and inorganic compounds, as As (CAS 7440-38-2)

Confirmed human carcinogen.

CADMIUM AND COMPOUNDS, AS CD, RESPIRABLE FRACTION (CAS 7440-43-9)

Suspected human carcinogen.

ETHYLENE OXIDE (CAS 75-21-8)

Suspected human carcinogen.

LEAD AND INORGANIC COMPOUNDS, AS PB (CAS 7439-92-1)

Confirmed animal carcinogen with unknown relevance to humans.

MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, POORLY AND MILDLY REFINED (CAS 64742-58-1)

Suspected human carcinogen.

MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, POORLY AND MILDLY REFINED (CAS 64742-70-7)

Suspected human carcinogen.

MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, POORLY AND MILDLY REFINED (CAS 68477-31-6)

Suspected human carcinogen.

NAPHTHALENE (CAS 91-20-3)

Confirmed animal carcinogen with unknown relevance to humans.

PROPYLENE OXIDE (CAS 75-56-9)

Confirmed animal carcinogen with unknown relevance to humans.

### Canada - Quebec OELs: Carcinogen category

1,4-Dioxane (CAS 123-91-1)

Detected carcinogenic effect in animals.

Cadmium (CAS 7440-43-9)

Suspected carcinogenic effect in humans.

Ethyl acrylate (CAS 140-88-5)

Detected carcinogenic effect in animals.

Lead (CAS 7439-92-1)

Detected carcinogenic effect in animals.

Oxirane (CAS 75-21-8)

Suspected carcinogenic effect in humans.

Propylene oxide (CAS 75-56-9)

Suspected carcinogenic effect in humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

1,4-Dioxane (CAS 123-91-1)	Volume 11, Supplement 7, Volume 71 - 2B Possibly carcinogenic to humans.
Arsenic (CAS 7440-38-2)	Volume 23, Supplement 7, Volume 100C 1 Carcinogenic to humans.
Benzenamine (CAS 62-53-3)	Volume 27, Supplement 7 - 3 Not classifiable as to carcinogenicity to humans.
Cadmium (CAS 7440-43-9)	Volume 58, Volume 100C 1 Carcinogenic to humans.
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	Volume 33, Supplement 7, Volume 100F 1 Carcinogenic to humans.
Ethyl acrylate (CAS 140-88-5)	Volume 39, Supplement 7, Volume 71 - 2B Possibly carcinogenic to humans.
Lead (CAS 7439-92-1)	Volume 23, Supplement 7 - 2B Possibly carcinogenic to humans.
Naphthalene (CAS 91-20-3)	Volume 82 - 2B Possibly carcinogenic to humans.
Oxirane (CAS 75-21-8)	Volume 97, Volume 100F 1 Carcinogenic to humans.
Propylene oxide (CAS 75-56-9)	Volume 60 - 2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	Volume 47, Volume 71 - 3 Not classifiable as to carcinogenicity to humans.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

1,4-Dioxane (CAS 123-91-1)  
 1-naphthylamine (CAS 134-32-7)  
 2-naphthylamine (CAS 91-59-8)  
 Arsenic (CAS 7440-38-2)  
 Benzenamine (CAS 62-53-3)  
 Cadmium (CAS 7440-43-9)  
 Ethyl acrylate (CAS 140-88-5)  
 Lead (CAS 7439-92-1)  
 Naphthalene (CAS 91-20-3)  
 Oxirane (CAS 75-21-8)  
 Propylene oxide (CAS 75-56-9)

**US NTP Report on Carcinogens: Anticipated carcinogen**

1,4-Dioxane (CAS 123-91-1)	Reasonably Anticipated to be a Human Carcinogen.
Lead (CAS 7439-92-1)	Reasonably Anticipated to be a Human Carcinogen.
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.
Propylene oxide (CAS 75-56-9)	Reasonably Anticipated to be a Human Carcinogen.

**US NTP Report on Carcinogens: Known carcinogen**

Arsenic (CAS 7440-38-2)	Known To Be Human Carcinogen.
Cadmium (CAS 7440-43-9)	Known To Be Human Carcinogen.
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	Known To Be Human Carcinogen.
Lubricating oils, petroleum, hydrotreated spent (CAS 64742-58-1)	Known To Be Human Carcinogen.
Oxirane (CAS 75-21-8)	Known To Be Human Carcinogen.
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	Known To Be Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Arsenic (CAS 7440-38-2)	Cancer
Cadmium (CAS 7440-43-9)	Cancer
Oxirane (CAS 75-21-8)	Cancer

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Teratogenicity</b>	Not available.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological Information**

**Ecotoxicity** See below

**Ecotoxicological data**

Components	Species	Test Results
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)		
<b>Aquatic</b>		
Crustacea	EC50 Water flea (Daphnia pulex)	2.7 - 5.1 mg/L, 48 hours



Components	Species	Test Results
Fish	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/L, 96 hours  8.8 mg/L, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.	
<b>Bioaccumulative potential</b>	No data available.	
<b>Mobility in soil</b>	No data available.	
<b>Mobility in general</b>	Not available.	
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

### 13. Disposal Considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport Information

<b>Transport of Dangerous Goods (TDG) Proof of Classification</b>	Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.
<b>U.S. Department of Transportation (DOT)</b>	Not regulated as dangerous goods.
<b>Transportation of Dangerous Goods (TDG - Canada)</b>	Not regulated as dangerous goods.

### 15. Regulatory Information

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.	
<b>Canada CEPA Schedule I: Listed substance</b>		
Arsenic (CAS 7440-38-2)		Listed.
Cadmium (CAS 7440-43-9)		Listed.
Lead (CAS 7439-92-1)		Listed.
Naphthalene (CAS 91-20-3)		Listed.
Oxirane (CAS 75-21-8)		Listed.
Propylene oxide (CAS 75-56-9)		Listed.
<b>Canada DSL Challenge Substances: Listed substance</b>		
1,4-Dioxane (CAS 123-91-1)		Listed.
Ethyl acrylate (CAS 140-88-5)		Listed.
Naphthalene (CAS 91-20-3)		Listed.
Propylene oxide (CAS 75-56-9)		Listed.
<b>Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number</b>		
Benzenamine (CAS 62-53-3)		1 TONNES
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)		1 TONNES
Toluene (CAS 108-88-3)		1 TONNES
<b>Canada Priority Substances List (Second List): Listed substance</b>		
Oxirane (CAS 75-21-8)		Listed.
<b>Canada SNAc Reporting Requirements: Listed substance/Publication date</b>		
Propylene oxide (CAS 75-56-9)		12/21/2011 Listed.
<b>Export Control List (CEPA 1999, Schedule 3)</b>		
Oxirane (CAS 75-21-8)		Substance subject to notification or consent.
<b>Greenhouse Gases</b>		
Not listed.		
<b>Precursor Control Regulations</b>		
Toluene (CAS 108-88-3)		Class B

**US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

1,4-Dioxane (CAS 123-91-1)	Listed.
Arsenic (CAS 7440-38-2)	Listed.
Benzenamine (CAS 62-53-3)	Listed.
Cadmium (CAS 7440-43-9)	Listed.
Ethyl acrylate (CAS 140-88-5)	Listed.
Lead (CAS 7439-92-1)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Oxirane (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.
Toluene (CAS 108-88-3)	Listed.

**US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity**

Benzenamine (CAS 62-53-3)	5000 LBS
Oxirane (CAS 75-21-8)	10 LBS
Propylene oxide (CAS 75-56-9)	100 LBS

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Arsenic (CAS 7440-38-2)	Cancer
Cadmium (CAS 7440-43-9)	Cancer
Lead (CAS 7439-92-1)	Reproductive toxicity
Oxirane (CAS 75-21-8)	Cancer
Arsenic (CAS 7440-38-2)	Liver
Cadmium (CAS 7440-43-9)	Lung
Lead (CAS 7439-92-1)	Central nervous system
Oxirane (CAS 75-21-8)	Reproductive toxicity
Arsenic (CAS 7440-38-2)	Skin
Cadmium (CAS 7440-43-9)	Kidney
Lead (CAS 7439-92-1)	Kidney
Oxirane (CAS 75-21-8)	Mutagenicity
Arsenic (CAS 7440-38-2)	Respiratory irritation
Cadmium (CAS 7440-43-9)	Acute toxicity
Lead (CAS 7439-92-1)	Blood
Oxirane (CAS 75-21-8)	Central nervous system
Arsenic (CAS 7440-38-2)	Nervous system
Lead (CAS 7439-92-1)	Acute toxicity
Oxirane (CAS 75-21-8)	Skin sensitization
Arsenic (CAS 7440-38-2)	Acute toxicity
Oxirane (CAS 75-21-8)	Skin irritation
	Eye irritation
	respiratory tract irritation
	Acute toxicity
	Flammability

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - No
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

1,4-Dioxane (CAS 123-91-1)
Arsenic (CAS 7440-38-2)
Benzenamine (CAS 62-53-3)
Cadmium (CAS 7440-43-9)
Ethyl acrylate (CAS 140-88-5)
Lead (CAS 7439-92-1)
Naphthalene (CAS 91-20-3)

Oxirane (CAS 75-21-8)  
Propylene oxide (CAS 75-56-9)  
Toluene (CAS 108-88-3)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Oxirane (CAS 75-21-8)  
Propylene oxide (CAS 75-56-9)

**US state regulations**

**US - California Hazardous Substances (Director's): Listed substance**

1,4-Dioxane (CAS 123-91-1)	Listed.
Arsenic (CAS 7440-38-2)	Listed.
Benzenamine (CAS 62-53-3)	Listed.
Cadmium (CAS 7440-43-9)	Listed.
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	Listed.
Ethyl acrylate (CAS 140-88-5)	Listed.
Lead (CAS 7439-92-1)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Oxirane (CAS 75-21-8)	Listed.
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.
Toluene (CAS 108-88-3)	Listed.

**US - Illinois Chemical Safety Act: Listed substance**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Benzenamine (CAS 62-53-3)  
Cadmium (CAS 7440-43-9)  
Ethyl acrylate (CAS 140-88-5)  
Lead (CAS 7439-92-1)  
Naphthalene (CAS 91-20-3)  
Oxirane (CAS 75-21-8)  
Propylene oxide (CAS 75-56-9)  
Toluene (CAS 108-88-3)

**US - Louisiana Spill Reporting: Listed substance**

1,4-Dioxane (CAS 123-91-1)	Listed.
Arsenic (CAS 7440-38-2)	Listed.
Benzenamine (CAS 62-53-3)	Listed.
Cadmium (CAS 7440-43-9)	Listed.
Ethyl acrylate (CAS 140-88-5)	Listed.
Lead (CAS 7439-92-1)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Oxirane (CAS 75-21-8)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.
Toluene (CAS 108-88-3)	Listed.

**US - Michigan Critical Materials Register: Parameter number**

Arsenic (CAS 7440-38-2)	ARSENIC
Cadmium (CAS 7440-43-9)	CADMIUM
Lead (CAS 7439-92-1)	LEAD
Toluene (CAS 108-88-3)	TOLUENE

**US - Minnesota Haz Subs: Listed substance**

1,4-Dioxane (CAS 123-91-1)	Listed.
Arsenic (CAS 7440-38-2)	Listed.
Benzenamine (CAS 62-53-3)	Listed.
Cadmium (CAS 7440-43-9)	Listed.
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	Listed.
Ethyl acrylate (CAS 140-88-5)	Listed.
Lead (CAS 7439-92-1)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Oxirane (CAS 75-21-8)	Listed.
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.
Toluene (CAS 108-88-3)	Listed.

**US - New Jersey RTK - Substances: Listed substance**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Benzenamine (CAS 62-53-3)

Cadmium (CAS 7440-43-9)  
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)  
Ethyl acrylate (CAS 140-88-5)  
Lead (CAS 7439-92-1)  
Naphthalene (CAS 91-20-3)  
Oxirane (CAS 75-21-8)  
Propylene oxide (CAS 75-56-9)  
Toluene (CAS 108-88-3)

**US - North Carolina Toxic Air Pollutants: Listed substance**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Benzenamine (CAS 62-53-3)  
Cadmium (CAS 7440-43-9)  
Oxirane (CAS 75-21-8)  
Toluene (CAS 108-88-3)

**US - Pennsylvania RTK - Hazardous Substances: Special hazard**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Cadmium (CAS 7440-43-9)  
Ethyl acrylate (CAS 140-88-5)  
Oxirane (CAS 75-21-8)  
Propylene oxide (CAS 75-56-9)

**US - Texas Effects Screening Levels: Listed substance**

1,4-Dioxane (CAS 123-91-1)	Listed.
Arsenic (CAS 7440-38-2)	Listed.
Benzenamine (CAS 62-53-3)	Listed.
Cadmium (CAS 7440-43-9)	Listed.
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)	Listed.
Ethyl acrylate (CAS 140-88-5)	Listed.
Lead (CAS 7439-92-1)	Listed.
Lubricating oils, petroleum, hydrotreated spent (CAS 64742-58-1)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Oxirane (CAS 75-21-8)	Listed.
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	Listed.
Propylene oxide (CAS 75-56-9)	Listed.
Toluene (CAS 108-88-3)	Listed.

**US - Washington Chemical of High Concern to Children: Listed substance**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Benzenamine (CAS 62-53-3)  
Cadmium (CAS 7440-43-9)  
Toluene (CAS 108-88-3)

**US. Massachusetts RTK - Substance List**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Benzenamine (CAS 62-53-3)  
Cadmium (CAS 7440-43-9)  
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)  
Ethyl acrylate (CAS 140-88-5)  
Lead (CAS 7439-92-1)  
Naphthalene (CAS 91-20-3)  
Oxirane (CAS 75-21-8)  
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)  
Propylene oxide (CAS 75-56-9)  
Toluene (CAS 108-88-3)

**US. New Jersey Worker and Community Right-to-Know Act**

1,4-Dioxane (CAS 123-91-1)  
Arsenic (CAS 7440-38-2)  
Benzenamine (CAS 62-53-3)  
Cadmium (CAS 7440-43-9)  
Ethyl acrylate (CAS 140-88-5)  
Lead (CAS 7439-92-1)  
Naphthalene (CAS 91-20-3)  
Oxirane (CAS 75-21-8)  
Propylene oxide (CAS 75-56-9)  
Toluene (CAS 108-88-3)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,4-Dioxane (CAS 123-91-1)  
 Arsenic (CAS 7440-38-2)  
 Benzenamine (CAS 62-53-3)  
 Cadmium (CAS 7440-43-9)  
 Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)  
 Ethyl acrylate (CAS 140-88-5)  
 Lead (CAS 7439-92-1)  
 Naphthalene (CAS 91-20-3)  
 Oxirane (CAS 75-21-8)  
 Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)  
 Propylene oxide (CAS 75-56-9)  
 Toluene (CAS 108-88-3)

**US. Rhode Island RTK**

1,4-Dioxane (CAS 123-91-1)  
 Arsenic (CAS 7440-38-2)  
 Benzenamine (CAS 62-53-3)  
 Cadmium (CAS 7440-43-9)  
 Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)  
 Ethyl acrylate (CAS 140-88-5)  
 Lead (CAS 7439-92-1)  
 Naphthalene (CAS 91-20-3)  
 Oxirane (CAS 75-21-8)  
 Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)  
 Propylene oxide (CAS 75-56-9)  
 Toluene (CAS 108-88-3)

**US. California Proposition 65**

**WARNING:** This product can expose you to chemicals including 1,4-dioxane, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

1,4-Dioxane (CAS 123-91-1)	Listed: January 1, 1988
1-naphthylamine (CAS 134-32-7)	Listed: October 1, 1989
2-naphthylamine (CAS 91-59-8)	Listed: February 27, 1987
Arsenic (CAS 7440-38-2)	Listed: February 27, 1987
Benzenamine (CAS 62-53-3)	Listed: January 1, 1990
Cadmium (CAS 7440-43-9)	Listed: October 1, 1987
Ethyl acrylate (CAS 140-88-5)	Listed: July 1, 1989
Lead (CAS 7439-92-1)	Listed: October 1, 1992
Naphthalene (CAS 91-20-3)	Listed: April 19, 2002
Oxirane (CAS 75-21-8)	Listed: July 1, 1987
Propylene oxide (CAS 75-56-9)	Listed: October 1, 1988

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

Cadmium (CAS 7440-43-9)	Listed: May 1, 1997
Lead (CAS 7439-92-1)	Listed: February 27, 1987
Oxirane (CAS 75-21-8)	Listed: August 7, 2009
Toluene (CAS 108-88-3)	Listed: January 1, 1991

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

Lead (CAS 7439-92-1)	Listed: February 27, 1987
Oxirane (CAS 75-21-8)	Listed: February 27, 1987

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

Cadmium (CAS 7440-43-9)	Listed: May 1, 1997
Lead (CAS 7439-92-1)	Listed: February 27, 1987
Oxirane (CAS 75-21-8)	Listed: August 7, 2009

**Inventory status**

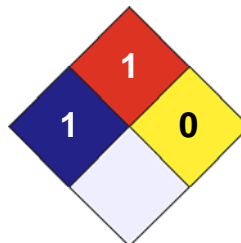
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/	1
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X



### Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

### Issue date

17-May-2018

### Version #

02

### Effective date

17-May-2018

### Prepared by

Dell Tech Laboratories Ltd. Phone: (519) 858-5021

### Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.