



SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	Hydraulic ZF46
Other means of identification	Not available
Recommended use	Lubricant
Recommended restrictions	None known.
Manufacturer information	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
Supplier	See above.

2. Hazards Identification

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

3. Composition/Information on Ingredients

Mixture			
Chemical name	Common name and synonyms	CAS number	%
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.

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

5. Fire Fighting Measures

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

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	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.
Methods and materials for containment and cleaning up	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.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	Avoid prolonged exposure. Use care in handling/storage. Avoid contact with eyes, skin and clothing.
Conditions for safe storage, including any incompatibilities	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 ³	
		400 ppm	
Paraffin Oils (petroleum), Catalytic Dewaxed Heavy (CAS 64742-70-7)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	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

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.

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

10. Stability and Reactivity

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

11. Toxicological Information

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

Components	Species	Test Results
Distillates (petroleum), catalytic reformer fractionator residue, low-boiling (CAS 68477-31-6)		
Acute		
<i>Dermal</i>		
LD50	Not available	
	Rabbit	> 1900 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Not available	
	Rat	> 4980 mg/m ³ , 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)		
Acute		
<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)		
Acute		
<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
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	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

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Teratogenicity	Not available.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	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)		
Aquatic		
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
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Mobility in general	Not available.	
Other adverse effects	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

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	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).
Contaminated packaging	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

Transport of Dangerous Goods (TDG) Proof of Classification	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.
U.S. Department of Transportation (DOT)	Not regulated as dangerous goods.
Transportation of Dangerous Goods (TDG - Canada)	Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations	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.	
Canada CEPA Schedule I: Listed substance		
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.
Canada DSL Challenge Substances: Listed substance		
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.
Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number		
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
Canada Priority Substances List (Second List): Listed substance		
Oxirane (CAS 75-21-8)		Listed.
Canada SNAc Reporting Requirements: Listed substance/Publication date		
Propylene oxide (CAS 75-56-9)		12/21/2011 Listed.
Export Control List (CEPA 1999, Schedule 3)		
Oxirane (CAS 75-21-8)		Substance subject to notification or consent.
Greenhouse Gases		
Not listed.		
Precursor Control Regulations		
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)

Hazard categories	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.

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

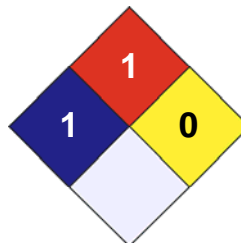
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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.