

# **Kinross Gold Corporation**

## **Goose Lake Project**

### **Attachment 1**

June 2001



June 22, 2001

Mr. Jack Kaniak  
Lands Manager,  
Kitikincot Inuit Association  
P.O. 315  
Kugluktuk, NT, X0E 0E0

Dear Mr. Kaniak,

**Re: Inuit Land Use Permits: KTL399C037, KTL200F004, KTL200C009  
KTL200C011, KTL200C013, KTL 200C017**

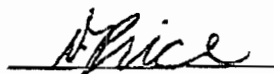
Wheaton River Nunavut Ltd. (formerly Kit Resources NWT Ltd.) entered into an Option Agreement with Kinross Gold Corporation of Toronto in 1999. Under the terms of that Agreement, Kinross is the Operator of all the mining leases and claims currently held by Wheaton River Nunavut Ltd. This Agreement will remain in effect while Kinross completes certain annual expenditures commitments, at which time Kinross will earn a 70% participating interest in the Property.

Until advised otherwise, Wheaton River hereby authorizes KIA to release any relevant information to representatives of Kinross Gold Corporation. Wheaton River also confirms that Kinross Gold Corporation is responsible for conducting and administering all work on Wheaton River's current holding in Nunavut. Accordingly, where permissible, all notices and correspondences should be directed to Kinross who will be in contact with you and who will provide appropriate names and addresses. Wheaton River Nunavut Ltd. requests that duplicate copies be sent to:

Wheaton River Nunavut Ltd.  
Attention: Dunham Craig  
1500-700 West Pender St.  
Vancouver, B.C. V6C 1G8  
Tel: 604-684-9648  
Fax: 604-684-3123  
Email: dcraig@wheatonriver.com

Should you require any further clarification, please do not hesitate to contact the undersigned.

Yours truly,  
Wheaton River Nunavut Ltd.

  
Derek Price  
Vice President, Finance

#1500 - 700 WEST PENDER STREET, VANCOUVER B.C. V6C 1G8  
PHONE (604) 684-9648 FAX (604) 684-3123

**Kinross Gold Corporation**

**Goose Lake Project**

**Attachment 2**

June 2001

ATT

Carol Becker

From Carol Becker

## Material Safety Data Sheet

VISCO L

## Material Identification and Use

MANUFACTURER'S NAME..... Lucien Mirault Inc.  
MANUFACTURER'S ADDRESS..... 699 des Campagnards, CP88  
Valhennerville, Quebec  
JOY 2FO  
EMERGENCY PHONE NUMBER..... (819) 824-6778  
SUPPLIER IDENTIFIER.....  
SUPPLIER'S ADDRESS.....  
SUPPLIER EMERGENCY PHONE NUMBER.....  
PRODUCT IDENTIFIER..... VISCO L  
PRODUCT USE..... Drilling Mud

## Hazardous Ingredients of Materials

Chemical Identity	Concentration	CAS#/NA#/UN#	LD(50)	LC(50)
Mineral spirits	20-40%	CAS 64742-47-8	(oral, rat) over 8 ml/kg	N/E

## Physical Data For Product

PHYSICAL STATE..... Liquid  
ODOUR AND APPEARANCE..... oily smell, liquid emulsion  
ODOUR THRESHOLD..... N/E  
SPECIFIC GRAVITY..... 0.98  
VAPOUR PRESSURE..... N/E  
VAPOUR DENSITY (air=1)..... N/E  
EVAPORATION RATE..... N/E  
BOILING POINT..... N/E  
FREEZING POINT..... N/E  
PH..... 7.0 - 9.0 (0.6% in distilled water)  
DENSITY (g/ml)..... N/E  
COEFFICIENT OF WATER/OIL..... N/E  
DISTRIBUTION.....

## Fire and Explosion Hazard of Product

**Material Safety Data Sheet**

VISCO L

CONDITIONS OF FLAMMABILITY..... requires source of ignition, presence of air and temperature greater than flashpoint

MEANS OF EXTINCTION..... In case of fire use water spray, foam, dry chemical, or CO2  
AVOID USE OF WATER-SLIPPERY CONDITIONS WILL OCCUR.

FLASHPOINT AND METHOD OF DETERMINATION..... 70 c. (C.C.)

UPPER EXPLOSION LIMIT(\* BY VOL). N/E

LOWER EXPLOSION LIMIT(\* BY VOL). N/E

AUTO-IGNITION TEMPERATURE..... N/E

FLAMMABILITY CLASSIFICATION..... Combustible Liquid Class B-3

HAZARDOUS COMBUSTION PRODUCTS... Oxides of carbon or nitrogen and products of incomplete combustion.

EXPLOSION DATA..... N/E

SENSITIVITY TO STATIC DISCHARGE. Potential for fire and/or explosion when used indoors.

**Reactivity Data**

CHEMICAL STABILITY..... Stable

INCOMPATIBLE MATERIALS..... Avoid strong oxidizing and reducing materials

CONDITIONS OF REACTIVITY..... Avoid contamination with reactive materials.

HAZARDOUS DECOMPOSITION PRODUCTS N/E

**Toxicological Properties of Product**

ROUTES OF ENTRY

SKIN CONTACT..... May cause irritation, redness, swelling or dermatitis.

SKIN ABSORPTION..... N/A

EYE..... Will cause painful burning or stinging of eye and lids, watering of eyes and inflammation

INHALATION..... N/A

INGESTION..... May cause nausea or vomiting.

ACUTE OVER EXPOSURE EFFECTS..... N/E

CHRONIC OVER EXPOSURE EFFECTS... Skin irritation or dermatitis may occur upon frequent or prolonged contact.

EXPOSURE LIMITS..... Contains traces of acrylamide, TWA-EV=0.03 mg/mg3 (ONT.>REG 654/86)

IRRITANCY OF PRODUCT..... Skin-moderate  
eye-moderate

**Material Safety Data Sheet****VIBRA STOP****Material Identification and Use**

MANUFACTURER'S NAME..... CONTROL CHEMICAL (1989) CORPORATION  
MANUFACTURER'S ADDRESS..... Bay 6, 2016 - 25th Avenue N.E.  
Calgary, Alberta, Canada T2E 6Z4  
EMERGENCY PHONE NUMBER..... (403) 291-9850  
SUPPLIER IDENTIFIER.....  
SUPPLIER'S ADDRESS.....  
SUPPLIER EMERGENCY PHONE NUMBER.....  
PRODUCT IDENTIFIER..... VIBRA STOP  
PRODUCT USE..... Drilling Mud

**Hazardous Ingredients of Materials**

Chemical Identity	Concentration	CAS#/NA#/UN#	LD(50)	LC(50)
neral Spirits	7-14%	CAS 64742-47-8	(oral, rat) N/E over 8 ml/kg or >6400 mg/kg	

**Physical Data For Product**

PHYSICAL STATE..... Liquid  
ODOUR AND APPEARANCE..... Slight oil smell, brown appearance.  
ODOUR THRESHOLD..... N/E  
SPECIFIC GRAVITY..... 0.98  
VAPOUR PRESSURE..... N/E  
VAPOUR DENSITY (air=1)..... N/E  
EVAPORATION RATE..... N/E  
BOILING POINT..... N/E  
FREEZING POINT..... -30 Degrees C  
pH..... 8-9  
DENSITY (g/ml)..... N/E  
COEFFICIENT OF WATER/OIL..... N/E  
DISTRIBUTION.....

**Fire and Explosion Hazard of Product**

**Material Safety Data Sheet****VIBRA STOP**

CONDITIONS OF FLAMMABILITY..... Requires a source of ignition, the presence of air, and a temperature greater than the flashpoint.

MEANS OF EXTINCTION..... In case of fire, foam, dry chemical, or CO2. AVOID USE OF WATER-SLIPPERY CONDITIONS WILL OCCUR.

FLASHPOINT AND METHOD OF DETERMINATION..... >200 degrees F

UPPER EXPLOSION LIMIT(% BY VOL). N/E

LOWER EXPLOSION LIMIT(% BY VOL). N/E

AUTO-IGNITION TEMPERATURE..... N/E

FLAMMABILITY CLASSIFICATION..... N/A

HAZARDOUS COMBUSTION PRODUCTS... CO, CO2, Oxides of sulphur produced on combustion.

EXPLOSION DATA..... N/E

SENSITIVITY TO STATIC DISCHARGE. N/A

**Reactivity Data**

CHEMICAL STABILITY..... Stable

INCOMPATIBLE MATERIALS..... Oxidizing materials.

CONDITIONS OF REACTIVITY..... N/A

HAZARDOUS DECOMPOSITION PRODUCTS N/A

**Toxicological Properties of Product****ROUTES OF ENTRY**

SKIN CONTACT..... Contact may cause irritation, redness, swelling or dermatitis.

SKIN ABSORPTION..... N/A

EYE..... Will cause painful burning or stinging of eyes and lids, watering of eyes, and inflammation of conjunctiva.

INHALATION..... N/A

INGESTION..... May cause gastrointestinal irritation, cramps, diarrhoea.

ACUTE OVER EXPOSURE EFFECTS..... N/E

CHRONIC OVER EXPOSURE EFFECTS... Skin irritation or dermatitis may occur upon frequent or prolonged contact.

EXPOSURE LIMITS..... N/E

IRRITANCY OF PRODUCT..... Moderate skin and eye irritant.

SENSITIZATION TO MATERIAL..... N/E

**Material Safety Data Sheet****VIBRA STOP**

CARCINOGENICITY, REPRODUCTIVE N/E  
EFFECTS.....  
TERATOGENICITY, MUTAGENICITY.... N/E  
TOXICOLOGICALLY SYNERGISTIC N/E  
PRODUCTS.....

**Preventive Measures**

PERSONAL PROTECTIVE EQUIPMENT... Wear eye/face protection. Wear suitable gloves  
SPECIFIC ENGINEERING CONTROLS... N/A  
LEAK AND SPILL PROCEDURES..... CONTAIN THE SPILL. SOAK UP WITH AN ABSORBENT  
MATERIAL. CLEAN WITH AN ADEQUATE SOLVENT.  
WASTE DISPOSAL..... In accordance with Municipal, Provincial and  
Federal regulations.  
HANDLING PROCEDURES AND N/A  
EQUIPMENT.....  
STORAGE REQUIREMENTS..... STORE IN A TIGHTLY SEALED CONTAINER.  
SPECIAL SHIPPING INFORMATION.... None.

**First Aid Measures**

SPECIFIC FIRST AID PROCEDURES... FLUSH EYES WITH WATER. RINSE CONTAMINATED SKIN  
WITH SOAP AND WATER. IF INGESTED, GIVE WATER.  
DO NOT INDUCE VOMITING. CALL A PHYSICIAN.

**Preparation Date of Material Safety Data Sheet**

PREPARED BY..... The Safety Committee  
PHONE NUMBER OF PREPARER..... (403) 291-9850  
DATE PREPARED..... January 02, 1995

The information contained herein is based on data believed to be reliable, but  
is presented without guarantee or warranty & Control Chemical (1989)  
Corporation, disclaims any liability incurred from the use thereof.



TELLUS\* T 22

407-157

Revision Number: 1



## Shell Canada Limited

### Material Safety Data Sheet

Effective Date: 19970605

Revised on: 1999-06-11

Supersedes: None

THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

#### 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: TELLUS\* T 22  
SYNONYMS: LOW TEMPERATURE HYDRAULIC OIL  
PRODUCT USE: Hydraulic Fluid  
MSDS Number: 407-157

**MANUFACTURER**  
Shell Canada Limited  
P.O. Box 100, Station M  
400-4th Ave. S.W.  
Calgary, AB Canada  
T2P 2H5

**TELEPHONE NUMBERS**  
Shell Emergency Number 1-800-661-7378  
**CANUTEC 24 HOUR EMERGENCY NUMBER** 613-996-6666  
For general information: 403-691-3111  
For MSDS information: 403-691-3982  
(From 7:30 to 4:30 Mountain Time) 403-691-2220

This MSDS was prepared by the Toxicology and Material Safety Section of Shell Canada Limited.

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS Number	% Range	WHMIS Controlled	CBI Claim No. CBI Date
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THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

See Section 8 for Occupational Exposure Guidelines

#### 3. HAZARDS IDENTIFICATION

**Physical Description:** Viscous Liquid Lightly Coloured Hydrocarbon Odour

**Routes of Exposure:** Exposure will most likely occur through skin contact or from inhalation of mechanically or thermally generated oil mists.

**Hazards:** Inhalation of oil mist or vapours from hot oil may cause irritation of the upper respiratory tract.

For further information on health effects, see Section 11.

TELLUS\* T 22

407-157

Revision Number: 1

**4. FIRST AID**

<b>Eyes</b>	Flush eyes with water for at least 15 minutes while holding eyelids open. Obtain medical attention.
<b>Skin</b>	Wipe excess from skin. Wash contaminated skin with mild soap and water for 15 minutes.
<b>Ingestion</b>	Do not induce vomiting. Obtain medical attention immediately.
<b>Inhalation</b>	Remove victim from further exposure. Additional first aid treatment is not ordinarily required.
<b>Notes to Physician</b>	In general, lubricating oils have low oral toxicity. High pressure injection under the skin may have serious consequences and may require urgent treatment.

**5. FIRE FIGHTING MEASURES**

<b>Extinguishing Media</b>	Dry Chemical Carbon Dioxide Foam Water Fog
<b>Firefighting Instructions</b>	Water or foam may cause frothing. Use water to cool fire exposed containers. Water may be used to flush spills away from exposure.
<b>Hazardous Combustion Products</b>	Carbon monoxide, carbon dioxide and dense smoke are produced on combustion.

**6. ACCIDENTAL RELEASE MEASURES**

Eliminate all ignition sources. Isolate hazard area and restrict access. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Try to work upwind of spill. Dike and contain land spills; contain water spills by booming. For large spills remove by mechanical means and place in containers. Absorb residue or small spills with absorbent material and remove to non-leaking containers for disposal. Flush area with water to remove trace residue. Dispose of recovered material as noted under Disposal Considerations. Notify appropriate environmental agency(ies).

**7. HANDLING AND STORAGE**

<b>Handling:</b>	Avoid excessive heat, formation of oil mist, breathing of vapours and mist of hot oil and prolonged or repeated contact with skin. Launder contaminated clothing prior to reuse. Properly dispose of contaminated leather articles, including shoes, that cannot be decontaminated. Use good personal hygiene.
<b>Storage:</b>	Store in a cool, dry, well ventilated area, away from heat and ignition sources.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

THE FOLLOWING INFORMATION, WHILE APPROPRIATE FOR THIS PRODUCT, IS GENERAL IN NATURE. THE SELECTION OF PERSONAL PROTECTIVE EQUIPMENT WILL VARY DEPENDING ON THE CONDITIONS OF USE.

TELLUS\* T 22

407-157

Revision Number: 1

**Occupational Exposure Limits (1998) :** Oil mist (mineral): 5 mg/m<sup>3</sup> (TLV/TWA) ACGIH  
10 mg/m<sup>3</sup> (TLV/STEL) ACGIH

**Mechanical Ventilation:** To maintain levels below workplace exposure limits mechanical ventilation recommended. Make up air should always be supplied to balance air exhausted (either generally or locally). Local ventilation is recommended if oil mist is present or if exposure limit is exceeded.

#### PERSONAL PROTECTIVE EQUIPMENT:

**Eye Protection:** Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes.

**Skin Protection:** Oil impervious gloves (nitrile, neoprene or PVC) should be worn at all times when handling this product. Impervious clothing (apron, coveralls) should also be worn in confined workspaces or where the risk of skin exposure is much higher.

**Respiratory Protection:** If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Depending on airborne concentrations, use either a NIOSH-approved dust/mist respirator or a NIOSH-approved supplied-air respirator. Under conditions of high heat, use a NIOSH-approved chemical cartridge respirator with organic vapour cartridges in combination with a dust/mist pre-filter.

### 9. PHYSICAL DATA

<b>Physical State:</b>	Viscous Liquid
<b>Appearance:</b>	Lightly Coloured
<b>Odour:</b>	Hydrocarbon Odour
<b>Odour Threshold:</b>	Not available
<b>Freezing/Pour Point:</b>	Not available
<b>Boiling Point:</b>	>315 degrees C
<b>Density:</b>	858 kg/m <sup>3</sup> @ 15 degrees C
<b>Vapour Density (Air = 1):</b>	Not available
<b>Vapour Pressure:</b>	<0.1 mm Hg @ 20 degrees C
<b>pH:</b>	Not available
<b>Flash Point:</b>	Method Cleveland Open Cup >134 degrees C
<b>Lower Explosion Limit:</b>	Not available
<b>Upper Explosion Limit:</b>	Not available
<b>Autoignition Temperature:</b>	Not available
<b>Viscosity:</b>	20.9 - 23.1 cSt @ 40 degrees C
<b>Evaporation Rate (n-BuAc = 1):</b>	Not available
<b>Partition Coefficient (K<sub>ow</sub>):</b>	Not available
<b>Water Solubility:</b>	Insoluble
<b>Other Solvents:</b>	Hydrocarbon solvents

### 10. STABILITY AND REACTIVITY

<b>Chemically Stable:</b>	Yes
<b>Hazardous Polymerization:</b>	No
<b>Sensitive to Mechanical Impact:</b>	No
<b>Sensitive to Static Discharge:</b>	No

TELLUS\* T 22

407-157

Revision Number: 1

**Incompatible Materials:**  
**Conditions of Reactivity:**

Avoid strong oxidizing agents.  
Avoid excessive heat, formation of vapours or mists.

## 11. TOXICOLOGICAL INFORMATION

### Ingredient (or Product if not specified) Toxicological Data

**Routes of Exposure:** Exposure will most likely occur through skin contact or from inhalation of mechanically or thermally generated oil mists.

**Formulation:** No data is specifically available for this product and therefore this toxicological information is based on data available for the ingredients.

**Irritancy:** This product is not a primary skin irritant after exposure of short duration, is not a skin sensitizer and is not irritating to the eyes.

**Chronic Effects:** Prolonged or repeated contact may cause various forms of dermatitis including folliculitis and oil acne. Long term intensive exposure to oil mist may cause benign lung fibrosis.

## 12. ECOLOGICAL INFORMATION

**Environmental Effects** Block off drains and ditches. Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities.

**Biodegradability** Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

Waste management priorities (depending on volumes and concentration of waste) are: 1. recycle (reprocess), 2. energy recovery (cement kilns, thermal power generation), 3. incineration, 4. disposal at a licenced waste disposal facility. Do not attempt to combust waste on-site. Incinerate at a licenced waste disposal site with approval of environmental authority. Landfill absorbed material in a government approved site.

## 14. TRANSPORTATION INFORMATION

### Canadian Road and Rail Shipping Classification:

This product is not regulated under the Canadian Transportation of Dangerous Goods Regulations for transport by road and rail.

## 15. REGULATORY INFORMATION

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

TELLUS\* T 22

407-157

Revision Number: 1

**DSL/NDSL Status:**

THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act.

**Other Regulatory Status:**

Provincial criteria are likely and should be requested when notifying provincial authorities. No Canadian federal standard; however, for general discharge guidance, federal installations limited to 15 mg/L for total oil and grease.

**16. ADDITIONAL INFORMATION****Revisions:**

This MSDS has been reissued in the ANSI Z400.1 standard format.

ROTELLA\* T XLA 15W-40

431-405  
Revision Number: 1**Shell Canada Limited**  
**Material Safety Data Sheet**

Effective Date: 19980320

Revised on: 1999-06-11

Supersedes: None

THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT: ROTELLA\* T XLA 15W-40  
SYNONYMS: AUTOMOTIVE ENGINE OIL  
PRODUCT USE: Lubricating oil  
MSDS Number: 431-405

**MANUFACTURER**  
Shell Canada Limited  
P.O. Box 100, Station M  
400-4th Ave. S.W.  
Calgary, AB Canada  
T2P 2H5

**TELEPHONE NUMBERS**  
Shell Emergency Number 1-800-661-7378  
CANUTEC 24 HOUR EMERGENCY NUMBER 613-996-6666  
For general information: 403-691-3111  
For MSDS information: 403-691-3982  
(From 7:30 to 4:30 Mountain Time) 403-691-2220

This MSDS was prepared by the Toxicology and Material Safety Section of Shell Canada Limited.

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Component Name	CAS Number	% Range	WHMIS Controlled	CBI Claim No. CBI Date
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THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

See Section 8 for Occupational Exposure Guidelines

**3. HAZARDS IDENTIFICATION**

**Physical Description:** Liquid Light Brown Hydrocarbon Odour

**Routes of Exposure:** Exposure will most likely occur through skin contact or from inhalation of mechanically or thermally generated oil mists.

**Hazards:** Inhalation of oil mist or vapours from hot oil may cause irritation of the upper respiratory tract.

For further information on health effects, see Section 11.

ROTELLA\* T XLA 15W-40

431-405  
Revision Number: 1**4. FIRST AID**

<b>Eyes</b>	Flush eyes with water for at least 15 minutes while holding eyelids open.
<b>Skin</b>	Wipe excess from skin. Wash contaminated skin with mild soap and water for 15 minutes.
<b>Ingestion</b>	Do not induce vomiting. Obtain medical attention immediately.
<b>Inhalation</b>	Remove victim from further exposure. Additional first aid treatment is not ordinarily required.
<b>Notes to Physician</b>	In general, lubricating oils have low oral toxicity. High pressure injection under the skin may have serious consequences and may require urgent treatment.

**5. FIRE FIGHTING MEASURES**

<b>Extinguishing Media</b>	Dry Chemical Carbon Dioxide Foam Water Fog
<b>Firefighting Instructions</b>	Water or foam may cause frothing. Use water to cool fire exposed containers. Water may be used to flush spills away from exposure.
<b>Hazardous Combustion Products</b>	Carbon monoxide, carbon dioxide and dense smoke are produced on combustion.

**6. ACCIDENTAL RELEASE MEASURES**

Eliminate all ignition sources. Isolate hazard area and restrict access. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Try to work upwind of spill. Dike and contain land spills; contain water spills by booming. For large spills remove by mechanical means and place in containers. Absorb residue or small spills with absorbent material and remove to non-leaking containers for disposal. Flush area with water to remove trace residue. Dispose of recovered material as noted under Disposal Considerations. Notify appropriate environmental agency(ies).

**7. HANDLING AND STORAGE**

<b>Handling:</b>	Avoid excessive heat, formation of oil mist, breathing of vapours and mist of hot oil and prolonged or repeated contact with skin. Launder contaminated clothing prior to reuse. Properly dispose of contaminated leather articles, including shoes, that cannot be decontaminated. Use good personal hygiene.
<b>Storage:</b>	Store in a cool, dry, well ventilated area, away from heat and ignition sources.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

THE FOLLOWING INFORMATION, WHILE APPROPRIATE FOR THIS PRODUCT, IS GENERAL IN NATURE. THE SELECTION OF PERSONAL PROTECTIVE EQUIPMENT WILL VARY DEPENDING ON THE CONDITIONS OF USE.

Occupational Exposure Limits (1998) : Oil mist (mineral): 5 mg/m3 (TLV/TWA) ACGIH  
10 mg/m3 (TLV/STEL) ACGIH

ROTELLA\* T XLA 15W-40

431-405

Revision Number: 1

**Mechanical Ventilation:** To maintain levels below workplace exposure limits mechanical ventilation recommended. Local ventilation is recommended if oil mist is present or if exposure limit is exceeded. Make up air should always be supplied to balance air exhausted (either generally or locally).

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes.

**Skin Protection:** Oil impervious gloves (nitrile, neoprene or PVC) should be worn at all times when handling this product. Impervious clothing (apron, coveralls) should also be worn in confined workspaces or where the risk of skin exposure is much higher.

**Respiratory Protection:** If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Depending on airborne concentrations, use either a NIOSH-approved dust/mist respirator or a NIOSH-approved supplied-air respirator. Under conditions of high heat, use a NIOSH-approved chemical cartridge respirator with organic vapour cartridges in combination with a dust/mist pre-filter.

**9. PHYSICAL DATA**

**Physical State:** Liquid

**Appearance:** Light Brown

**Odour:** Hydrocarbon Odour

**Odour Threshold:** Not available

**Freezing/Pour Point:** Not available

**Boiling Point:** >315 degrees C

**Density:** 878 kg/m<sup>3</sup> @ 15 degrees C

**Vapour Density (Air = 1):** Not available

**Vapour Pressure:** <0.1 mm Hg @ 20 degrees C

**pH:** Not applicable

**Flash Point:** Method Cleveland Open Cup 226 degrees C

**Lower Explosion Limit:** Not available

**Upper Explosion Limit:** Not available

**Autoignition Temperature:** Not available

**Viscosity:** 13.15 - 14.65 cSt @ 100 degrees C

**Evaporation Rate (n-BuAc = 1):** Not available

**Partition Coefficient (K<sub>ow</sub>):** Not available

**Water Solubility:** Insoluble

**Other Solvents:** Hydrocarbon Solvents

**Molecular Weight:** Not available

**Formula:**

**10. STABILITY AND REACTIVITY**

**Chemically Stable:** Yes  
Isolate hazard area and restrict access.

**Hazardous Polymerization:** No



ROTELLA\* T XLA 15W-40

431-405

Revision Number: 1

<b>Sensitive to Mechanical Impact:</b>	No
<b>Sensitive to Static Discharge:</b>	No
<b>Incompatible Materials:</b>	Avoid strong oxidizing agents.
<b>Conditions of Reactivity:</b>	Avoid excessive heat, formation of vapours or mists.

## 11. TOXICOLOGICAL INFORMATION

### Ingredient (or Product if not specified) Toxicological Data

<b>Routes of Exposure:</b>	Exposure will most likely occur through skin contact or from inhalation of mechanically or thermally generated oil mists.
<b>Irritancy:</b>	Testing completed with this product or with one of similar formulation, indicates that the product is not a primary skin or eye irritant.
<b>Chronic Effects:</b>	Prolonged or repeated contact may cause various forms of dermatitis including folliculitis and oil acne. Long term intensive exposure to oil mist may cause benign lung fibrosis.

## 12. ECOLOGICAL INFORMATION

<b>Environmental Effects</b>	Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities.
<b>Biodegradability</b>	Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

Waste management priorities (depending on volumes and concentration of waste) are: 1. recycle (reprocess), 2. energy recovery (cement kilns, thermal power generation), 3. incineration, 4. disposal at a licenced waste disposal facility. Do not attempt to combust waste on-site. Incinerate at a licenced waste disposal site with approval of environmental authority. Landfill absorbed material in a government approved site.

## 14. TRANSPORTATION INFORMATION

### Canadian Road and Rail Shipping Classification:

This product is not regulated under the Canadian Transportation of Dangerous Goods Regulations for transport by road and rail.

## 15. REGULATORY INFORMATION

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

ROTELLA\* T XLA 15W-40

431-405

Revision Number: 1

**DSL/NDL Status:**

**THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.**

A component of this product is in transition to the DSL. All other components are listed.

**Other Regulatory Status:**

No Canadian federal standard; however, for general discharge guidance, federal installations limited to 15 mg/L for total oil and grease. Provincial criteria are likely and should be requested when notifying provincial authorities.

**16. ADDITIONAL INFORMATION**

**Revisions:**

This MSDS has been reissued in the ANSI Z400.1 standard format.

LOW SULPHUR DIESEL FUEL

320-110  
Revision Number: 1**Shell Canada Limited**  
**Material Safety Data Sheet**

Effective Date: 19980901

Class B3 Combustible Class D2B Other Toxic  
Liquid Effects - Skin Irritant**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT: **LOW SULPHUR DIESEL FUEL**  
SYNONYMS: Diesel  
Automotive Gas Oil  
PRODUCT USE: Fuel Solvent  
MSDS Number: 320-110

**MANUFACTURER**  
**Shell Canada Limited**  
P.O. Box 100, Station M  
400-4th Ave. S.W.  
Calgary, AB Canada  
T2P 2H5

**TELEPHONE NUMBERS**  
**Shell Emergency Number** 1-800-661-7378  
**CANUTEC 24 HOUR EMERGENCY NUMBER** 613-996-6666  
For general information: 1-800-661-1600  
For MSDS information: 403-691-3982  
(From 7:30 to 4:30 Mountain Time) 403-691-2220

This MSDS was prepared by the Toxicology and Material Safety Section of Shell Canada Limited.

\*A star in the product name designates a trade-mark(s) of Shell Canada Limited. Used under license by Shell Canada Products Limited.

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Component Name	CAS Number	% Range	WHMIS Controlled	CBI Claim No. CBI Date
Fuels, Diesel, No. 2	68476-34-6	60 - 100	Yes	

See Section 8 for Occupational Exposure Guidelines.

**3. HAZARDS IDENTIFICATION****Physical Description:** Liquid Lightly Coloured Hydrocarbon Odour

## LOW SULPHUR DIESEL FUEL

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Revision Number: 1

<b>Routes of Exposure:</b>	Exposure may occur via inhalation, ingestion, skin absorption and skin or eye contact.
<b>Hazards:</b>	Combustible Liquid. Irritating to skin. Vapours are moderately irritating to the eyes. Vapours are moderately irritating to the respiratory passages. The liquid when accidentally aspirated into the lungs can cause a severe inflammation of the lung.
<b>Handling:</b>	Eliminate all ignition sources. Avoid prolonged exposure to vapours. Wear suitable gloves and eye protection. Bond and ground transfer containers and equipment to avoid static accumulation. Empty containers are hazardous, may contain flammable / explosive dusts, liquid residue or vapours. Keep away from sparks and open flames.

For further information on health effects, see Section 11.

**4. FIRST AID**

<b>Eyes</b>	Flush eyes with water for at least 15 minutes while holding eyelids open. If irritation occurs and persists, obtain medical attention.
<b>Skin</b>	Flush affected skin with gently flowing lukewarm water for at least 20 minutes and remove contaminated clothing while rinsing. Wash contaminated skin with mild soap and water for 15 minutes. If irritation occurs and persists, obtain medical attention.
<b>Ingestion</b>	DO NOT INDUCE VOMITING! OBTAIN MEDICAL ATTENTION IMMEDIATELY. Guard against aspiration into lungs by having the individual turn on to their left side. If vomiting occurs spontaneously keep head below hips to prevent aspiration of liquid into the lungs. Do not give anything by mouth to an unconscious person.
<b>Inhalation</b>	Remove victim from further exposure and restore breathing, if required. Obtain medical attention.
<b>Notes to Physician</b>	The main hazard following accidental ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. If more than 2.0 mL/kg has been ingested, vomiting should be induced with supervision. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before vomiting, gastric lavage with a cuffed endotracheal tube should be considered.

**5. FIRE FIGHTING MEASURES**

<b>Extinguishing Media</b>	Dry Chemical Carbon Dioxide Foam Water Fog
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**Firefighting Instructions**

Vapour forms a flammable/explosive mixture with air between upper and lower flammable limits. Vapours may travel along ground and flashback along vapour trail may occur. Do not use water except as a fog. Product will float and can be reignited on surface of water. Containers exposed to intense heat from fires should be cooled with water to prevent vapour pressure buildup which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. Caution - Combustible. Do not enter confined fire space without adequate protective clothing and an approved positive pressure self-contained breathing apparatus.

**Hazardous Combustion Products**

A complex mixture of airborne solid, liquid, particulates and gases will evolve when this material undergoes pyrolysis or combustion. Carbon dioxide, carbon monoxide and unidentified organic compounds may be formed upon combustion.

**6. ACCIDENTAL RELEASE MEASURES**

Issue warning "Combustible". Eliminate all ignition sources. Isolate hazard area and restrict access. Handling equipment must be grounded. Try to work upwind of spill. Avoid direct contact with material. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Dike and contain land spills; contain water spills by booming. Use water fog to knock down vapours; contain runoff. Absorb residue or small spills with absorbent material and remove to non-leaking containers for disposal. Recommended materials: Clay or Sand Flush area with water to remove trace residue. Dispose of recovered material as noted under Disposal Considerations. Notify appropriate environmental agency(ies).

**7. HANDLING AND STORAGE****Handling:**

Combustible. Avoid excessive heat, sparks, open flames and all other sources of ignition. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. Vapours are heavier than air and will settle and collect in low areas and pits, displacing breathing air. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapours are gone. Vapours may accumulate and travel to distant ignition sources and flashback. Do not cut, drill, grind, weld or perform similar operations on or near containers. Empty containers are hazardous, may contain flammable/explosive dusts, residues or vapours. Do not pressurize drum containers to empty them. Never siphon by mouth. Wash with soap and water prior to eating, drinking, smoking, applying cosmetics or using toilet facilities. Launder contaminated clothing prior to reuse. Use good personal hygiene.

**Storage:**

Use explosion-proof ventilation to prevent vapour accumulation. Keep container tightly closed.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

THE FOLLOWING INFORMATION, WHILE APPROPRIATE FOR THIS PRODUCT, IS GENERAL IN NATURE. THE SELECTION OF PERSONAL PROTECTIVE EQUIPMENT WILL VARY DEPENDING ON THE CONDITIONS OF USE.

## LOW SULPHUR DIESEL FUEL

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**Occupational Exposure Limits (1998) :** North American exposure limits have not been established for the product. Consult local authorities for acceptable provincial values.  
 Oil mist (mineral): 5 mg/m<sup>3</sup> (TLV/TWA) ACGIH  
 10 mg/m<sup>3</sup> (TLV/STEL) ACGIH  
 Recommend SHELL guideline of 125 mg/m<sup>3</sup> for vapours (8 hour shift).

**Mechanical Ventilation:** Use explosion-proof ventilation as required to control vapour concentrations. Concentrations in air should be maintained below lower explosive limit at all times or below the recommended threshold limit value if unprotected personnel are involved. Make up air should always be supplied to balance air exhausted (either generally or locally). For personnel entry into confined spaces (i.e. bulk storage tanks) a proper confined space entry procedure must be followed including ventilation and testing of tank atmosphere.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes. Provide an eyewash station in the area.

**Skin Protection:** Impervious gloves (viton, nitrile) should be worn at all times when handling this material. In confined spaces or where the risk of skin exposure is much higher, impervious clothing should be worn. Safety showers should be available for emergency use.

**Respiratory Protection:** If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Use a NIOSH-approved chemical cartridge respirator with organic vapour cartridges or use a NIOSH-approved supplied-air respirator. For high airborne concentrations, use a NIOSH-approved supplied-air respirator, either self-contained or airline breathing apparatus, operated in positive pressure mode.

**9. PHYSICAL DATA**

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	Lightly Coloured
<b>Odour:</b>	Hydrocarbon Odour
<b>Odour Threshold:</b>	Not available
<b>Freezing/Pour Point:</b>	Not available
<b>Boiling Point:</b>	<380 degrees C
<b>Density:</b>	<876 kg/m <sup>3</sup> @ 15 degrees C
<b>Vapour Density (Air = 1):</b>	Not available
<b>Vapour Pressure:</b>	Not available
<b>Specific Gravity (Water = 1):</b>	0
<b>pH:</b>	Not applicable
<b>Flash Point:</b>	Method Pensky-Martens CC >40 degrees C
<b>Lower Explosion Limit:</b>	1 % (vol.)
<b>Upper Explosion Limit:</b>	6 % (vol.)
<b>Autoignition Temperature:</b>	250 degrees C
<b>Viscosity:</b>	1.3 - 4.1 cSt @ 40 degrees C
<b>Evaporation Rate (n-BuAc = 1):</b>	Not available
<b>Partition Coefficient (K<sub>OW</sub>):</b>	Not available
<b>Water Solubility:</b>	Insoluble
<b>Other Solvents:</b>	Hydrocarbon Solvents

## LOW SULPHUR DIESEL FUEL

320-110

Revision Number: 1

Formula:

C10 to C22 Hydrocarbons

**10. STABILITY AND REACTIVITY**

Chemically Stable:	Yes
Hazardous Polymerization:	No
Sensitive to Mechanical Impact:	No
Sensitive to Static Discharge:	Yes
Hazardous Decomposition Products:	Thermal decomposition products are highly dependent on combustion conditions.
Incompatible Materials:	Avoid strong oxidizing agents.
Conditions of Reactivity:	Avoid excessive heat, open flames and all ignition sources.

**11. TOXICOLOGICAL INFORMATION**

Ingredient (or Product if not specified)	Toxicological Data
Fuels, Diesel, No. 2	LD50 Oral Rat >5000 mg/kg LD50 Dermal Rabbit >2000 mg/kg

Routes of Exposure:	Exposure may occur via inhalation, ingestion, skin absorption and skin or eye contact.
Irritancy:	This product is expected to be irritating to skin but is not predicted to be a skin sensitizer.
Chronic Effects:	Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Prolonged exposure to high vapour concentration can cause headache, dizziness, nausea, blurred vision and central nervous system depression.
Pre-existing Conditions:	Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product.
Carcinogenicity and Mutagenicity:	The International Agency for Research on Cancer (IARC) considers that this product is not classifiable as to its carcinogenicity to humans. Middle distillates have caused skin cancers in laboratory animals when applied repeatedly and left in place between applications. This effect is believed to be caused by the continuous irritation of the skin. Good personal hygiene should be maintained to avoid this risk.

**12. ECOLOGICAL INFORMATION**

Environmental Effects	Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches. Provincial regulations require and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities. May cause physical fouling of aquatic organisms.
Biodegradability	Not readily biodegradable. Potential for bioaccumulation.

**13. DISPOSAL CONSIDERATIONS**

## LOW SULPHUR DIESEL FUEL

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Revision Number: 1

Waste management priorities (depending on volumes and concentration of waste) are: 1. recycle (reprocess), 2. energy recovery (cement kilns, thermal power generation), 3. incineration, 4. disposal at a licenced waste disposal facility. Do not attempt to combust waste on-site. Incinerate at a licenced waste disposal site with approval of environmental authority.

**14. TRANSPORTATION INFORMATION****Canadian Road and Rail Shipping Classification:**

UN/NA Number	UN1202
Proper Shipping Name	FUEL OIL
Hazard Class	Class 3 Flammable Liquid
Packing Group	PG III
Shipping Description	FUEL OIL Class 3 UN1202 PG III

**15. REGULATORY INFORMATION**

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

<b>WHMIS Class:</b>	Class B3 Combustible Liquid Class D2B Other Toxic Effects - Skin Irritant
<b>DSL/NDL Status:</b>	This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act.
<b>Other Regulatory Status:</b>	No Canadian federal standards.

**16. ADDITIONAL INFORMATION****LABEL STATEMENTS**

<b>Hazard Statement :</b>	Combustible Liquid. Irritating to skin.
<b>Handling Statement:</b>	Eliminate all ignition sources. Avoid prolonged exposure to vapours. Wear suitable gloves and eye protection. Bond and ground transfer containers and equipment to avoid static accumulation. Empty containers are hazardous, may contain flammable / explosive dusts, liquid residue or vapours. Keep away from sparks and open flames.
<b>First Aid Statement :</b>	Wash contaminated skin with soap and water. Flush eyes with water. If overcome by vapours remove to fresh air. Do not induce vomiting. Obtain medical attention.
<b>Revisions:</b>	This MSDS has been reissued in the ANSI Z400.1 standard format.



FORMULA SHELL BRONZE GASOLINE

211-100  
Revision Number: 2**Shell Canada Limited**  
**Material Safety Data Sheet**

Effective Date: 19971202

Class B2 Flammable  
LiquidClass D2A Other Toxic  
Effects - Carcinogen**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT: **FORMULA SHELL BRONZE GASOLINE**  
SYNONYMS: Automotive Fuel  
Petrol  
PRODUCT USE: Fuel  
MSDS Number: 211-100

**MANUFACTURER**  
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**TELEPHONE NUMBERS**  
**Shell Emergency Number** 1-800-661-7378  
**CANUTEC 24 HOUR EMERGENCY NUMBER** 613-996-6666  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Component Name	CAS Number	% Range	WHMIS Controlled	CBI Claim No. CBI Date
Gasoline, Natural	8006-61-9	80 - 100	Yes	
Methyl t-Butyl Ether	1634-04-4	0 - 15	Yes	
Benzene	71-43-2	<1.5	Yes	

See Section 8 for Occupational Exposure Guidelines.

**3. HAZARDS IDENTIFICATION**