

Prod.Name: 3324 WS ATF
Manufacturer: IMPERIAL OIL Products Division
HMCS ID: 1189534
SUC: 04 - Metal Working Fluids and Lubricants

MATERIAL SAFETY DATA SHEET

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1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT INFORMATION

Product Name: 3324 WS ATF

Product Code: 18846

Recommended Use:

Automatic transmission fluid.

External Keys:

88863400 Distributable Material (Part #)
Automatic Primary Tradename - Distributable Material
Transmission Fluid
CN36444 GM of Canada Approval Number

MANUFACTURER INFORMATION

Manufacturer: IMPERIAL OIL Products Division

Address:

111 ST. CLAIR AVENUE CAN ONTARIO M5W 1K3 TORONTO MAILING
WEST

240 4th Avenue S.W. CAN Alberta T2P 3M9 Calgary MAILING

Communication Lines:

Phone 519-339-2145 EMERGENCY
Phone 800-268-3183 INFO
Phone 416-968-4111 INFO
Phone 519-339-2145 Emergency 24 hr.
Phone 800-268-3183 Technical Information
Phone 416-968-4111 INFO

Comment:

As of 8/13/08, the MSDS dated 12/18/06 is the most recent per the manufacturer.

2 INGREDIENT INFORMATION

FORMULATION

Ingredients:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>	<u>Exposure Limits</u>
BASE OILS	989930-39-4	<	100	% Wt	No
ADDITIVES	989922-74-6	<	100	% Wt	No

Comment:

No Reportable Hazardous Substance(s) or Complex Substance(s).

3 HAZARDS IDENTIFICATION

Hazards Overview:

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

Specific Hazards (Routes Of Exposure):

<u>Exposure Routes</u>	<u>Exposure Duration</u>	<u>Observation</u>
Eye Contact	General	Low order of toxicity. Excessive exposure may result in eye irritation.
Skin Contact	General	Low order of toxicity. Excessive exposure may result in skin irritation. High-pressure injection under skin may cause serious damage.
Inhalation	General	Low order of toxicity. Excessive exposure may result in respiratory irritation.

Medical Conditions Aggravated By Exposure:

Not provided.

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3 HAZARDS IDENTIFICATION

Comment:

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

4 FIRST AID MEASURES

First Aid By::

Inhalation At ambient/normal handling temperatures, minimal or no irritation due to inhalation of vapor/mist is expected.
After Inhalation
After Skin Contact
Skin Contact Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.
Eye Contact Flush thoroughly with water. If irritation occurs, get medical assistance.
After Eye Contact
After Ingestion
Ingestion First aid is normally not required. Seek medical attention if discomfort occurs.

5 FIRE FIGHTING MEASURES

Flash Point:

= 347 °F (175 deg.C) ASTM D-92.

Explosive Limits:

Upper Explosive Limit (UEL)	=	7.0	% Vol	Flammable Limits (Approximate volume % in air)
Lower Explosive Limit (LEL)	=	0.9	% Vol	Flammable Limits (Approximate volume % in air)

Autoignition Temperature:

Not Determined

Extinguishing Media:

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Non Suitable Extinguishing Media:

Straight Streams of Water.

Fire and Explosion Hazards:

Hazardous Combustion Products: Sulphur Oxides, Aldehydes, Oxides of carbon, Smoke, Fume

Special Fire Fighting Procedures:

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

6 ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IN CASE OF ACCIDENTAL RELEASE

Environmental Precautions:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SPILL OR LEAK PROCEDURES

Recovery:

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6 ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES

Recovery:

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

7 HANDLING AND STORAGE

HANDLING

Safe Handling Procedures:

Prevent small spills and leakage to avoid slip hazard.

Static Accumulator: This material is a static accumulator.

STORAGE

Storage Conditions:

Do not store in open or unlabelled containers.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE):

Hand Protection Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Contact local health and safety representative for appropriate glove type for your specific application(s).

Respiratory Protection If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode.

Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE):

capacity/rating may be exceeded.

Eye Protection If contact is likely, safety glasses with side shields are recommended.

Skin Protection Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Hygiene Measures:

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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Special Precautions:

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided above, is based upon intended, normal usage.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical State: Liquid.

Color: Red.

Odor: Characteristic. Odor Threshold: Not determined.

PHYSICAL PROPERTIES

pH Value:

Not
Applicable

Changes of State:

Boiling Point > 600 °F (316 deg.C)

Freezing Point Not
Determined

Melting Range Not
Applicable

Pourpoint < -34 °C < -30 F.

Vapor Pressure:

< 0.1 mm Hg 0.013 kPa. At 20 deg.C.

Vapor Density:

> 2 At 101 kPa.

Evaporation Rate:

Not
Determined

Specific Gravity:

= 0.85 At 15 deg.C

Solubility:

Water: Negligible

Viscosity:

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9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Viscosity:

Viscosity = 24 cSt (24 mm²/sec) at 40C. 5.45
cSt (5.45 mm²/sec) at 100C.

Additional Chemical and Physical Data:

Log Pow (n-Octanol/Water Partition Coefficient) > 3.5

Oxidizing Properties:

DMSO Extract (mineral oil only), IP-346: < 3 % Wt See Sections 3, 15, 16.

Comment:

Typical physical and chemical properties are given above. Consult the Supplier in Section 1 for additional data.

10 STABILITY AND REACTIVITY

STABILITY INFORMATION

Stability Under Normal Conditions: Stable

Conditions to Avoid:

Excessive heat. High energy sources of ignition.

Incompatible Materials:

Strong oxidizers.

Hazardous Polymerization:

Will not occur.

HAZARDOUS DECOMPOSITION

Reactions:

<u>Type of Reaction</u>	<u>Reaction Products</u>
Thermal Decomposition	Hazardous Combustion Products: Sulphur Oxides, Aldehydes, Oxides of carbon, Smoke, Fume
Decomposition	Material does not decompose at ambient temperatures.

11 TOXICOLOGICAL INFORMATION

SCIENTIFIC OBSERVATIONS

TOXICOLOGICAL EFFECTS

Product Data:

<u>Investigated Effect</u>	<u>Route of Administration</u>	<u>Organism Observed</u>	<u>Comment Observed</u>
Irritant	Inhalation		No end point data. Conclusion/Remarks: Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
Irritant	Skin Contact	Rabbit	Data available. Conclusion/Remarks: Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Irritant	Eye Contact	Rabbit	Data available. Conclusion/Remarks: May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

LETHAL LIMIT VALUES

Product Data:

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11 TOXICOLOGICAL INFORMATION

SCIENTIFIC OBSERVATIONS

LETHAL LIMIT VALUES

Product Data:

<u>Exposure Routes</u>	<u>Type</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>	<u>Species</u>	<u>Comment</u>
Inhalation	LC50	>	5000	mg/m3	Rat	Minimally Toxic. Based on assessment of the components.
Ingestion	LD50	>	2000	mg/kg	Rat	Minimally Toxic. Based on test data for structurally similar materials.
Skin Contact	LD50	>	2000	mg/kg	Rabbit	Minimally Toxic. Based on test data for structurally similar materials.

CLASSIFICATION OF INGREDIENTS

Carcinogenicity:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

Additional information is available by request.

IARC 1, IARC 2B, ACGIH A1, IARC 2A, ACGIH ALL, ACGIH A2: None.

Reproductive Effects:

CA P65 REPRO: None listed.

12 ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT

Comment:

The information given is based on data available for the material, the components of the material, and similar materials.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

ECOTOXICITY

Comment:

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY : Material -- Not expected to be harmful to aquatic organisms.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Information:

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

Empty Container Warning (where applicable): Empty containers may retain residue and can be dangerous. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt

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13 DISPOSAL CONSIDERATIONS

Waste Disposal Information:

to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

14 TRANSPORT INFORMATION

DOT Information:

Not Regulated for Land Transport.

Comment:

LAND (TDG) : Not Regulated for Land Transport.
SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code.
AIR (IATA) : Not Regulated for Air Transport.

15 REGULATORY INFORMATION

LABELLING

Hazard Codes:

NFPA Reactivity	0
NFPA Health	0
NFPA Flammability	1
HMIS Reactivity	0
HMIS Health	0
HMIS Flammability	1

NATIONAL REGULATIONS

SARA 311/312: No

SARA 313: No

Immediate Health: No

Delayed Health: No

Fire: No

Sudden Pressure Release: No

Reactive: No

Other Regulation:

TSCA:	Listed.
TSCA 5a2:	None.
TSCA 4:	None.
TSCA 5e:	None.
TSCA 6:	None.
TSCA 12b:	None.
NPRI:	None.

16 OTHER INFORMATION