

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

PRODUCT NAME: Pierce Arrow® Winter Lubricant

STOCK NUMBER: 256-614, 256-615

Distributor:

The Charles Machine Works, Inc.

1959 West Fir Avenue

Perry, OK 73077

Information Telephone: 580-572-2853

Date Issued: 10/6/10

Supercedes: 4/6/05

Emergency Telephone:

Chemtrec: 800-424-9300

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Components / Impurities : Dangerous product.

Mixture : Ethylene Glycol, Additives.

Substance name	Content	CAS No	EC No	Index No	Classification
Ethylene Glycol :	75 to 100 %	107-21-1	203-473-3	603-027-00-1	Xn; R22R67
Diethylene glycol :	1 to 5 %	111-46-6	203-872-2	603-140-00-6	Xn; R22
2-aminoethanol :	1 to 5 %	141-43-5	205-483-3	603-030-00-8	Xi; R36/38

*** List of relevant R phrases. See Heading 16 : OTHER INFORMATION

SARA Section 313 Chemical Listing: See Heading 15.

SECTION 3: HAZARDS IDENTIFICATION

Primary route of exposure : Inhalation. Ingestion.

Symptoms relating to use : The ethylene glycol present in this formulation may cause intoxication, central nervous system depression (incoordination, dizziness), respiratory failure, liver and kidney damage.

- **Inhalation :** May be harmful. May cause irritation to the respiratory tract. Vapours may cause drowsiness and dizziness.
- **Skin contact :** May produce skin irritation.
- **Eye contact :** May cause eye irritation.
- **Ingestion :** Harmful if swallowed. May cause irritation.

NFPA Hazard Ratings :

Health : 1 - CAUTION : May be irritating.

Flammability : 1 - Combustible if heated.

Reactivity : 0 - Stable : Not reactive when mixed with water.

Special Notice Key : - - - - -

Caution : Target Organs: Damage to kidneys and liver.

4 FIRST AID MEASURES

First aid measures : If overcome by exposure, remove victim to fresh air immediately. Seek medical advice (show the label where possible).

- **Inhalation :** Remove casualty to fresh air and keep at rest. Call a physician.
- **Skin contact :** Wash skin thoroughly with mild soap and water. Seek medical attention if ill effect or irritation develops.

- **Eye contact** : Immediately flush eyes thoroughly with water for at least 15 minutes. Ensure adequate flushing of eyes by separating eyelids with the fingers. Obtain emergency medical attention if pain, blinking, tears or redness persist.
 - **Ingestion** : Never give anything by mouth to an unconscious person. Rinse mouth with water, do not induce vomiting, call a doctor.
- Note to physician** : Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Hazardous combustion products : Incomplete combustion may form carbon monoxide, carbon dioxide. gas.

- **Suitable extinguishing media** : Carbon dioxide. Dry powder. Foam.
- **Unsuitable extinguishing media** : Use of heavy stream of water may spread fire.

Protection against fire : Use self-contained breathing apparatus when in close proximity to fire.

Special procedures : Fight fire from safe distance and protected location. Combustible material.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions : Eliminate every possible source of ignition. Ensure adequate ventilation. Ventilate confined spaces before entering. Equip cleanup crew with proper protection.

Environmental precautions : Prevent entry to sewers and public waters.

Clean up methods : Clean up any spills as soon as possible, using an absorbent material to collect it. Take up large spills with pump or vacuum. Take up small spills with dry chemical absorbent. Sweep or shovel spills into appropriate container for disposal. Dispose in a safe manner in accordance with local/national regulations.

SECTION 7: HANDLING AND STORAGE

Precautions in handling and storage : When using, do not eat, drink, or smoke.

Storage : Store in dry, cool, well-ventilated area. Provide adequate ventilation to minimize dust and/or vapour concentrations. Keep only in the original container.

Storage - away from : Strong oxidizers. Sparks. Open flame. Heat sources. Prolonged exposure to sunlight. Combustible material. Keep away from ignition sources (including static discharges).

Handling : Handle in accordance with good industrial hygiene and safety procedures.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection : Ensure adequate ventilation.

- **Respiratory protection** : Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.
- **Hand protection** : Wear suitable gloves resistant to chemical penetration.
- **Skin protection** : If skin contact or contamination of clothing is likely, protective clothing should be worn.
- **Eye protection** : Chemical goggles or safety glasses.
- **Ingestion** : When using, do not eat, drink, or smoke.

Industrial hygiene : Handle in accordance with good industrial hygiene and safety procedures.

Occupational Exposure Limits :

Ethylene Glycol : TLV[©] - Ceiling [mg/m³] : 100

Ethylene Glycol : OSHA PEL [mg/m³] : 50

Diethylene glycol : TLV[©] -TWA [mg/m³] : 10

2-aminoethanol : TLV[©] -TWA [ppm] : 3

2-aminoethanol : TLV[©] -STEL [ppm] : 6

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state at 20 °C : Liquid.
Colour : Slightly yellow.
Odo(u)r : Mild.
Density [kg/m³] : 1110
Viscosity : 10.2 cSt @40°C
Solubility in: : Oil (partially soluble).
Water.
Flash point [°C] (ASTM D 93) : 110 (230°F) PMCC
Explosion limits : No reliable data available.
Evaporation rate : No reliable data available.

SECTION 10: STABILITY AND REACTIVITY

Stability and reactivity : Stable under normal conditions.
Hazardous decomposition products : Carbon dioxide, carbon monoxide, & others.
Materials to avoid : Strong oxidizers.
Conditions to avoid : Combustible material. Sparks. Open flame. Heat sources. Prolonged exposure to sunlight. Keep away from ignition sources (including static discharges).

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity information : Product not tested. No reliable data available.

- **Inhalation :** May be harmful. May cause irritation to the respiratory tract. Vapours may cause drowsiness and dizziness.
- **Dermal :** May produce skin irritation.
- **Ocular :** May cause eye irritation.
- **Ingestion :** Harmful if swallowed. May cause irritation.
- **Other :** ETHYLENE GLYCOL: Symptoms from massive dosage via ingestion parallel alcohol intoxication, progressing to CNS depression, vomiting, headache, rapid respiratory and heart rate, lowered blood pressure, stupor, collapse, and unconsciousness with convulsions. Death from respiratory arrest or cardiovascular collapse may follow. Lethal dose in humans: 100 ml (3-4 ounces). Repeated small exposures by any route can cause severe damage to the kidney, brain, and developing fetus.

SECTION 12: ECOLOGICAL INFORMATION

Ecological effects information : This product has not been tested for environmental effects. Low mobility (soil). Material insoluble in water.
Bioaccumulative potential : Product not tested. No reliable data available.
Persistence - degradability : Product not tested. No reliable data available.
CERCLA (US) : Ethylene Glycol CAS 107-21-1 (RQ=5000 lbs) Product RQ=5,600 lbs

SECTION 13: DISPOSAL CONSIDERATIONS

General : Dispose in a safe manner in accordance with local/national regulations.
Disposal method : Material, as supplied, is not a U.S. EPA hazardous waste. Some states may regulate the disposal of petroleum and petroleum products. DO NOT INCINERATE AEROSOL CANS. Processing, use, or contamination may make this information inaccurate or incomplete.

SECTION 14: TRANSPORT INFORMATION

DOT (USA) : Non-regulated in containers less than or equal to 119 gallons.
Containers greater than 119 gallons: UN3082, Environmentally Hazardous Substance, N.O.S. (Contains Ethylene glycol), 9, III (RQ Ethylene glycol)

SECTION 15: REGULATORY INFORMATION

SARA TITLE III Section 313 : • Ethylene Glycol CAS 107-21-1

SARA TITLE III Section 311/312 : Immediate (Acute) Delayed (Chronic)

New Jersey Right-To-Know : • Ethylene Glycol CAS 107-21-1
• 2-aminoethanol CAS 141-43-5

Carcinogen classification : Not listed by NTP, IARC or OSHA.

Other : Certified Kosher by Tablet K.

Customers are reminded to check their state list of hazardous chemicals for proper disclosure and reporting of chemical substances.

SECTION 16: OTHER INFORMATION

Recommended uses and restrictions : Contact the producer or distributor.

List of relevant R phrases : R22 - Harmful if swallowed.

R36/38 - Irritating to eyes and skin.

R67 - Vapours may cause drowsiness and dizziness.

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