



## SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** **PENETRATING FLUID 2000 AEROSOL**

**Product use:** Used as anti-seize lubricant.

**Manufacturer:** WYS Manufacturing Ltd.  
Bay 7 & 8, 4216 – 54th Ave. SE  
Calgary, Alberta T2C 2E3  
Phone 1-403-252-2239  
Canada

**Supplier:** Maryn International Ltd.  
Bay 5 & 6, 4216 – 54th Ave. SE  
Calgary, Alberta T2C 2E3  
Phone 1-403-252-2239  
Canada

**Emergency Phone Number:** CANUTEC – 24 hr Emergency No. 1-613-996-6666  
Business Hour Number 1-403-252-2239  
(Monday through Friday 8:00am to 4:30pm MST)

**MSDS Prepared By** MARYN Research  
Phone 1-403-252-2239

**Date Prepared** 1 February 2013

## SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

| Hazardous Ingredients                   | Concentration % | C.A.S. #   | LD <sub>50</sub> (Species/Route)                                  | LC <sub>50</sub> (Species/Route) |
|---|-----------------|------------|---|----------------------------------|
| Light Petroleum Distillate Hydrotreated | 60-100%         | 64742-47-8 | >3160 mg/kg (Rabbit/Dermal)<br>>15000 mg/kg (Rat/Oral)            | NA                               |
| Ethoxylated Fatty Alcohol               | 1-5%            | 9004-98-2  | >2000 mg/kg (Rat/Oral)  | NA                               |
| Diocetyl Phthalate                      | 0.1-1%          | 117-81-7   | 30000 mg/kg (Rat/Oral)<br>30000 mg/kg (Mouse/Oral)<br>34000 mg/kg | NA                               |



|                |      |          |   |    |
|----------------|------|----------|---|----|
|                |      |          | (Rabbit/Oral)<br>25000 mg/kg<br>(Rabbit/Dermal) |    |
| Carbon Dioxide | 2-3% | 124-38-9 | NA  | NA |

NA: Not Available

### **SECTION III: Hazards Identification**

- Emergency Overview** Skin contact will cause irritation. Eye contact and inhalation may cause irritation.
- Route of entry** Skin and eye contact, inhalation, and ingestion are the primary routes of exposure to this product.
- Ingestion** May cause irritation to the digestive tract. Aspiration into lungs during ingestion or vomiting may cause chemical pneumonitis or pulmonary edema.
- Inhalation** No inhalation dangers at room temperature as there are no vapours. If product is misted at elevated temperature, high concentration of vapour and/or mist may cause irritation, experienced as nasal discomfort and discharge. At concentrations above recommended exposure limit, may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous system effects including death.
- Skin Contact and absorption** Frequent or prolonged contact may irritate the skin and cause a skin rash or dermatitis.
- Eye Contact** Slight irritation to the eyes but will not cause injury to the eye tissue.
- Effects of Chronic Exposure** Repeated exposure over prolonged periods of time may cause irritation to the skin, respiratory system and eyes. Product contains ingredients that may be carcinogenic to humans. Follow good industrial hygiene practices to avoid exposure.
- Effects of Acute Exposure** Breathing mist caused by high temperature or swallowing large quantities may be irritating to skin, respiratory system, mucous membranes and eyes.

### **SECTION IV: First Aid Measures**

- Ingestion** Do not induce vomiting. Obtain medical attention immediately.
- Skin Contact** Remove contaminated clothing. Wash affected area well with soap and water for at least 15 minutes. If redness or irritation occurs, obtain medical attention. Launder clothes prior to re-use.
- Inhalation** Remove victim from further exposure. If excessive fumes, remove victim to fresh air. Those providing assistance, avoid exposure to yourself and others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, obtain medical attention immediately. If breathing has stopped or is difficult, trained personnel may provide oxygen or artificial respiration.



**Eye Contact** Flush with clean tepid water for 15 minutes keeping eyelids open. Ensure proper irrigation by occasionally lifting upper and lower eyelids. If irritation persists, obtain medical attention.

**Notes to Physician** If ingested, material may be aspirated into the lungs and can cause pulmonary pneumonitis. Treat appropriately.

## **SECTION V: Fire-Fighting Measures**

|   |   |
|---|---|
| <b>Flammability</b>                           | Non flammable at ambient temperature. Liquid may burn at temperatures above flash point if exposed to an open flame.  |
| <b>Means of Extinction</b>                    | Carbon dioxide foam, dry chemicals. Keep containers cool with water spray. When fighting fire, treat as petroleum product, wear full protective clothing, including NIOSH approved self-contained breathing apparatus. Avoid spreading with water flooding. |
| <b>Flash Point (ASTM D92)</b>                 | 94°C (201°F)  |
| <b>Upper Flammability Limits</b>              | Approximately 8.8% by volume.   |
| <b>Lower Flammability Limits</b>              | Approximately 1.3% by volume.   |
| <b>Auto Ignition Temperature</b>              | Approximately 250°C (482°F)   |
| <b>Hazardous Combustion Products</b>          | Oxides of carbon, nitrogen, sulphur and dense smoke   |
| <b>Fire and Explosion Hazards</b>             | None at normal temperatures below flash point. Do not cut, weld, or pressurize empty container.   |
| <b>Sensitivity to impact Static Discharge</b> | Container may explode in heat of fire.<br>None  |

## **SECTION VI: Accidental Release Measures**

|                                  |   |
|----------------------------------|---|
| <b>Personal Protection</b>       | Wear suitable protective equipment. Eliminate sources and or potential sources of ignition.   |
| <b>Environmental Precautions</b> | Product is readily soluble in water. Do not flush to sewers, streams or other bodies of water. For disposal, see Section XIII.                        |
| <b>Methods for cleaning up</b>   | Absorb on inert material such as sand, earth, vermiculite. Sweep up and collect in a suitable container for disposal. Observe government regulations. |
| <b>Large spills</b>              | Stop leak if without risk. Dike to contain spill. Pump excess material into suitable container (metal drums, metal tanks, or such).                   |

## **SECTION VII: Handling and Storage**



**Handling** Avoid excess heat, formation of oil mist, breathing vapours and mist from hot oil, and prolonged or repeated contact with skin

**Storage** Do not store above 50 °C (122°F) or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol.

## **SECTION VIII: Exposure Controls / Personal Protection**

### **Exposure Limits**

If used in a way that generates a mist, observe the limits for mineral oil mist

| Component          | Exposure Limit (ACGIH)                                       | Exposure Limit (OSHA)                                   | Immediately Dangerous to Life and Health (IDLH) |
|--------------------|--|---|---|
| Mineral Oil Mist   | 5 mg/m <sup>3</sup> TWA-TLV<br>10 mg/m <sup>3</sup> STEL-TLV | 5 mg/m <sup>3</sup> TWA-PEL<br>Not Established STEL-PEL | 2500 mg/m <sup>3</sup>                          |
| Diocetyl Phthalate | 5 mg/m <sup>3</sup> TWA-TLV                                  | 5 mg/m <sup>3</sup> TWA-PEL                             | 5000 mg/m <sup>3</sup> TWA-PEL                  |
| Carbon Dioxide     | 5000 ppm TWA, 30,000 ppm STEL                                | 5000 ppm TWA  | NA  |

**Engineering Controls** Use in a well-ventilated area. If user's operation generates mist, use ventilation to keep exposure to airborne contaminants below exposure limits

**Respiratory Protection** Use approved respirator with dual organic vapour / mist and particulate cartridge if vapour concentration exceeds permissible exposure limit

**Eye Protection** Use chemical splash goggles if risk of splashing present.

**Skin Protection** Use rubber or plastic apron.

**Hand Protection** Use oil resistant gloves.

## **SECTION IX: Physical and Chemical Properties**

**Physical State:** Liquid  
**Odour:** Mild petroleum odour  
**Appearance:** Clear, light amber  
**Odour Threshold:** Not established  
**Specific Gravity:** 0.82 at 20°C (68°F)  
**Vapour Pressure:** <1.12 mm Hg at 25°C (77°F)  
**Vapour Density:** 6.6 (Air = 1)  
**Evaporation Rate:** <0.1 (nButyl Acetate = 1)  
**Boiling Point:** >224°C (>435°F)  
**Pour Point:** -67°C (-88°F)



**Solubility in Water:** Soluble  
**pH:** Not available  
**Partitioning Coefficient:** Not available

## **SECTION X: Stability and Reactivity**

**Chemical Stability:** Stable  
**Incompatibility:** Avoid contact with oxidizing agents, reducing agents, strong acids, strong bases and ignition source.  
**Reactivity:** No reactivity  
**Polymerization:** Will not occur  
**Decomposition Products:** Oxides of carbon, nitrogen, sulphur and dense smoke.

## **SECTION XI: Toxicological Information**

### **Effects of Acute and Chronic Exposure:**

**Skin Contact** Frequent or prolonged contact may irritate the skin and cause a skin rash.

**Skin Absorption** No evidence of adverse effects from available information. Minimally toxic. Prolonged contact may cause irritation or dermatitis.

**Eye Contact** Slight irritation to eyes, but will not injure eye tissue.

**Inhalation** No inhalation dangers at room temperature as there are no vapours. If the product is misted, high concentrations of vapours and/or mist may cause irritation, experienced as nasal discomfort and discharge. At concentrations above recommended exposure limit, may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous system effects including death.

**Ingestion** Minimally toxic. May cause irritation to the digestive tract. May be aspirated into lungs during ingestion or vomiting, which may lead to chemical pneumonitis or pulmonary edema.

**Irritancy:** Slight irritation to eyes. Frequent or prolonged contact may irritate skin. If misted, inhalation of mist may cause irritation.

**Sensitization:** Repeated or prolonged contact may cause sensitization in some individuals.

### **Carcinogenicity:**

| <b>Ingredients</b>                      | <b>IARC – Carcinogens</b> | <b>ACGIH - Carcinogens</b> |
|---|---------------------------|----------------------------|
| Light Petroleum Distillate Hydrotreated | Not listed                | Not listed                 |
| Ethoxylated Fatty Alcohol               | Not listed                | Not listed                 |
| Dioctyl Phthalate                       | Listed - 3                | Listed - A3                |

**Reproductive Toxicity:** Dioctyl Phthalate: Adverse reproductive effects have occurred in experimental animals.



**Teratogenicity:** Dioctyl Phthalate: May cause congenital malformation in the fetus. Boys of mom highly exposed to phthalates show stunted genitals. The higher the levels of phthalates in the mothers during the final months of pregnancy, the less masculine their boys were when examined by paediatricians.

**Embryotoxicity:** No information is available and no adverse effects are anticipated.

**Mutagenicity:** No information is available and no adverse effects are anticipated.

**Toxicologically Synergistic Products:** Not available.

## **SECTION XII: Ecological information**

**Environmental Fate:**  
No specific environmental fate data is available. This product is not expected to be readily biodegradable.

**Environmental Effects:**  
No specific toxicity or environmental effect data is available.

## **SECTION XIII: Disposal Consideration**

### **RCRA 40 CFR 261 Classification**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: Not Listed

RCRA U-Series: CAS 117-81-7: Waste Number U028

### **Waste Disposal**

Dispose of waste material in compliance with all federal, state, provincial and local regulations. Incinerate in a furnace or bury in an approved landfill where permitted under appropriate federal, provincial and local regulations.

## **SECTION XIV: Transport Information**

|   |                          |
|---|--------------------------|
| <b>Department of Transport:</b>         | Not regulated under DOT  |
| <b>TDG – Canada</b>                     | Not regulated under TDG. |
| <b>DOT/TDG Proper Shipping Name:</b>    | None                     |
| <b>DOT/TDG Hazard Class:</b>            | None                     |
| <b>Product Identification Number:</b>   | None                     |
| <b>Packing Group:</b>                   | None                     |
| <b>DOT/TDG Labels: Primary:</b>         | None required            |
| <b>Subsidiary:</b>                      | None required            |
| <b>DOT/TDG Placards:</b>                | None required            |
| <b>IMDG Code Hazard Classification:</b> | UN1950, Aerosols, 2.1.   |



**SECTION XV: Regulatory Information**

**CPR Compliance:**

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

**OSHA Hazard Communication Standards 29CFR 1910.1200:**

This product is not known to contain any of the carcinogens required to be listed under OSHA Hazards Communication Standards 29 CFR 1910.1200.

**WHMIS Classification:**

This product is classified under the following WHMIS category:

- D2A Very Toxic Materials
- D2B Toxic Materials
- D5 Flammable Aerosol

**CERCLA:**

CAS 117-81-7: 100 lb final RQ; 45.5 kg final RQ.

**SARA Title III Section 311/312:**

Under the provisions of Title III, Section 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard category: CAS 117-81-7: immediate, delayed.

**SARA Title III Section 313:**

This product contains more than 0.1 % of CAS 117-81-7 listed under SARA Section 313.  
 Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure  
 Section 302 Extremely Hazardous Substances (TPQ): None

**RCRA:**

CAS 117-81-7

**NPRI:**

CAS 117-81-7                      Part 1A Substances  
 CAS 64742-47-8                    Part 5 Substances

**Chemical Inventory**

Canada: The ingredients of this product are on the DSL.  
 United States: The ingredients of this product are on the TSCA

**SECTION XVI Other Information**

**HMIS Information**

| Degree of Hazard | HMIS Rating    |
|------------------|----------------|
| 4= Severe        | Health 1       |
| 3= Serious       | Flammability 1 |
| 2= Moderate      | Reactivity 0   |



|            |  |
|------------|--|
| 1= Slight  |  |
| 0= Minimal |  |

**Revision Information**

**Prepared by:** Maryn Research  
**Phone:** 1-403-252-2239  
**Effective Date:** 1 Feb 2013  
**Supersedes:** 8 June 2011  
**Revision:** 5.0

Maryn International Ltd. (the "Company"), shall not be liable for any damages arising from the information contained on this data sheet howsoever caused, if the product in question is not employed in a normal or foreseeable use or circumstances. The Company shall not be liable for any indirect or consequential damages arising out of the use of the information contained on this data sheet howsoever caused.