Section 1 - Product and Company Information

Product Name: PETROLEUM ETHER, ANHYDROUS
Product Number: 300314
Brand: ALDRICH
Company: Sigma-Aldrich Canada, Ltd
Address: 2149 Winston Park Drive
         Oakville ON L6H 6J8 CA
Technical Phone: 9058299500
Fax: 9058299292
Emergency Phone: 800-424-9300

Section 2 - Composition/Information on Ingredient

Substance Name: PETROLEUM ETHER
CAS #: 8032-32-4
SARA 313: No
Synonyms: Benzine (light petroleum distillate) * Benzoline
           * Canadol * Ligroin * Painters naphtha *
           Petroleum ether * Refined solvent naphtha *
           Skellysolve F * Skellysolve G * Varnish marker's
           naphtha * VM and P Naphtha * VM & P Naphtha
           (ACGIH)
RTECS Number: OI6180000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Flammable (USA) Extremely Flammable (EU). Toxic.
Harmful: may cause lung damage if swallowed. May cause cancer.
Target organ(s): Central nervous system.

HMIS RATING
HEALTH: 2*
FLAMMABILITY: 4
REACTIVITY: 0

NFPA RATING
HEALTH: 2
FLAMMABILITY: 4
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician.
INHALATION EXPOSURE
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE
In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS
Flammable Hazards: Yes

EXPLOSION HAZARDS
Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Forms explosive mixtures in air.

FLASH POINT
- 57.0 °F  - 49.0 °C Method: closed cup

EXPLOSION LIMITS
Lower: 1.1 %  Upper: 8 %

AUTOIGNITION TEMP
246 °C

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Extremely flammable. Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is
Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep container closed. Keep away from heat, sparks, and open flame.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

EXPOSURE LIMITS, RTECS
Country  Source   Type      Value
USA       ACGIH     TWA       300 PPM
USA       NIOSH     TWA       350 MG/M3

Country  Source   Type      Value
Poland    NDS      500 MG/M3
Poland    NDSCh    1500 MG/M3
Poland    NDSP     -

Section 9 - Physical/Chemical Properties

Appearance
Physical State: Liquid
Color: Colorless

Property          Value At Temperature or Pressure
Molecular Weight    N/A
pH                 N/A
BP/BP Range        35.0 - 60.0 °C 760 mmHg
MP/MP Range        N/A
Freezing Point     N/A
Vapor Pressure     543.54 mmHg 20 °C
Vapor Density      2.5 g/l
Saturated Vapor Conc. N/A
SG/Density         0.64 g/cm3
Bulk Density       N/A
Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)
Central nervous system.

SIGNS AND SYMPTOMS OF EXPOSURE
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

TOXICITY DATA

Inhalation
Rat
3,400 ppm
LC50
Remarks: Behavioral: Convulsions or effect on seizure threshold.
Behavioral: Muscle weakness.
Intravenous Mouse
40 MG/KG LD50

IRRITATION DATA

Eyes
Human
880 ppm
15M

CHRONIC EXPOSURE - CARCINOGEN
Result: This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

CHRONIC EXPOSURE - TERATOGEN
Species: Rat
Dose: 300 MG/M3/4H
Route of Application: Inhalation
Exposure Time: (1-19D PREG)

Section 12 - Ecological Information
No data available.

Section 13 - Disposal Considerations
APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information
DOT
Proper Shipping Name: Petroleum distillates, n.o.s.
[or] Petroleum products, n.o.s.
UN#: 1268
Class: 3
Packing Group: Packing Group I
Hazard Label: Flammable liquid
PIH: Not PIH

IATA
Proper Shipping Name: Petroleum distillates, n.o.s.
IATA UN Number: 1268
Hazard Class: 3
Packing Group: I

Section 15 - Regulatory Information
EU DIRECTIVES CLASSIFICATION
Symbol of Danger: F+-T
Indication of Danger: Extremely Flammable. Toxic.
R: 12-45-22
Risk Statements: Extremely flammable. May cause cancer. Harmful if swallowed.
S: 53-45
Safety Statements: Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US CLASSIFICATION AND LABEL TEXT
Risk Statements: May cause cancer. Harmful: may cause lung damage if swallowed.
Safety Statements: Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
US Statements: Target organ(s): Central nervous system.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.