MATERIAL SAFETY DATA SHEET

Date Printed: 01/09/2009 Date Updated: 01/28/2006 Version 1.2

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Section 1 - Product and Company Information
Product Name
                               PRISTANIC ACID SOLUTION, MIXTURE OF
                               ISOMERS, ETHANOL SOLUTION
Product Number
                               P6617
Brand
                               SIGMA
Company
                               Sigma-Aldrich Canada, Ltd
Address
                               2149 Winston Park Drive
                               Oakville ON L6H 6J8 CA
Technical Phone:
                               9058299500
                               9058299292
Fax:
Emergency Phone:
                               800-424-9300
Section 2 - Composition/Information on Ingredient
Substance Name
                                           CAS #
                                                                  SARA 313
PRISTANIC ACID SOLUTION
                                           None
                                                                  No
                                                       Percent
                                                                  SARA 313
Ingredient Name
                                           CAS #
ETHYL ALCOHOL, NON-DENATURED, 200
                                           64-17-5
                                                       98.95
  PROOF
PRISTANIC ACID
                                           1189-37-3
Formula
                 C19H38O2
Section 3 - Hazards Identification
EMERGENCY OVERVIEW
   Flammable (USA) Highly Flammable (EU). Irritant.
   Highly flammable. Irritating to eyes, respiratory system and skin.
   Target organ(s): Nerves. Liver.
HMIS RATING
   HEALTH: 2*
   FLAMMABILITY: 3
   REACTIVITY: 1
NFPA RATING
   HEALTH: 2
   FLAMMABILITY: 3
   REACTIVITY: 1
   *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.
FLASH POINT
          14 °C Method: closed cup
   57 °F
AUTOIGNITION TEMP
   N/A
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): Flammable liquid. Emits toxic fumes under
   fire conditions.
   Specific Method(s) of Fire Fighting: Use water spray to cool
   fire-exposed containers.
Section 6 - Accidental Release Measures
PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
   Evacuate area. Shut off all sources of ignition.
PROCEDURE(S) OF PERSONAL PRECAUTION(S)
   Wear respirator, chemical safety goggles, 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
   complete.
Section 7 - Handling and Storage
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HANDLING
   User Exposure: Avoid breathing vapor. Avoid contact with eyes,
   skin, and clothing. Avoid prolonged or repeated exposure.
   Suitable: Keep container closed. Keep away from heat, sparks,
   and open flame. Handle and store under nitrogen.
   Store at -20°C
SPECIAL REQUIREMENTS
   Handle and store under inert gas. Hygroscopic.
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 ABEK (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
   Wash thoroughly after handling. Wash contaminated clothing before
Section 9 - Physical/Chemical Properties
                        Physical State: Liquid
Appearance
Property
                        Value
                                              At Temperature or Pressure
Molecular Weight
                        298.5 AMU
                        N/A
BP/BP Range N/A
MP/MP Range N/A
Freezing Point N/A
Vapor Pressure N/A
Vapor Density N/A
Saturated Vapor Conc. N/A
SG/Density N/A
Saturated Vapor SG/Density N/A Bulk Density N/A Odor Threshold N/A N/A
VOC Content
Water Content
Solvent Content
Evaporation Rate
N/A
N/A
                   N/A
Surface Tension
Partition Coefficient N/A
Decomposition Temp. N/A
Flash Point 57 °F 14 °C
Explosion Limits N/A
                                             Method: closed cup
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                      N/A
N/7
Flammability
Autoignition Temp
Refractive Index
Optical Rotation
                         N/A
Miscellaneous Data
                        N/A
Solubility
                         N/A
N/A - not available
Section 10 - Stability and Reactivity
STABILITY
   Stable: Stable.
   Conditions to Avoid: Moisture.
   Materials to Avoid: Alkali metals, Ammonia, Oxidizing agents,
   Peroxides.
HAZARDOUS DECOMPOSITION PRODUCTS
   Hazardous Decomposition Products: Nature of decomposition products
   not known.
HAZARDOUS POLYMERIZATION
   Hazardous Polymerization: Will not occur
Section 11 - Toxicological Information
ROUTE OF EXPOSURE
   Skin Contact: Causes skin irritation.
   Skin Absorption: May be harmful if absorbed through the skin.
   Eye Contact: Causes eye irritation.
   Inhalation: Material is 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)
   Nerves. Liver. Heart.
SIGNS AND SYMPTOMS OF EXPOSURE
   Can cause CNS depression. Narcotic effect. Damage to the heart.
   To the best of our knowledge, the chemical, physical, and
   toxicological properties have not been thoroughly investigated.
CHRONIC EXPOSURE - CARCINOGEN
   Result: This product is or contains a component that is not
   classifiable as to its carcinogenicity based on its IARC, ACGIH,
   NTP, or EPA classification.
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
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DOT
   Proper Shipping Name: Ethanol [or] Ethyl alcohol [or]
   Ethanol solutions [or] Ethyl alcohol solutions
   UN#: 1170
   Class: 3
   Packing Group: Packing Group II
   Hazard Label: Flammable liquid
   PIH: Not PIH
   Proper Shipping Name: Ethanol
   IATA UN Number: 1170
   Hazard Class: 3
   Packing Group: II
Section 15 - Regulatory Information
EU ADDITIONAL CLASSIFICATION
    Symbol of Danger: F
   Indication of Danger: Highly Flammable.
   R: 11
   Risk Statements: Highly flammable.
   s: 7-16
   Safety Statements: Keep container tightly closed. Keep away from
   sources of ignition - no smoking.
US CLASSIFICATION AND LABEL TEXT
   Indication of Danger: Flammable (USA) Highly Flammable (EU).
   Irritant.
   Risk Statements: Highly flammable. Irritating to eyes,
   respiratory system and skin.
   Safety Statements: Keep container tightly closed. Keep away from sources of ignition - no smoking. In case of contact with eyes,
   rinse immediately with plenty of water and seek medical advice.
   Wear suitable protective clothing.
UNITED STATES REGULATORY INFORMATION
   SARA LISTED: No
CANADA REGULATORY INFORMATION
   WHMIS Classification: This product has been classified in
   accordance with the hazard criteria of the CPR, and the MSDS
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contains all the information required by the CPR.

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

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

DSL: No NDSL: No

DISCLAIMER

WARRANTY

Section 16 - Other Information

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