Section 1 - Product and Company Information

Product Name                      UROCANIC ACID, 99%
Product Number                    859796
Brand                             ALDRICH
Company                           Sigma-Aldrich Canada, Ltd
Street Address                    2149 Winston Park Drive
City, State, Zip, Country         Oakville ON L6H 6J8 CA
Technical Phone:                  9058299500
Emergency Phone:                  800-424-9300
Fax:                              9058299292

Section 2 - Composition/Information on Ingredient

Substance Name                       CAS #                SARA 313
4-IMIDAZOLEACRYLIC ACID                104-98-3              No

Formula       C6H6N2O2
Synonyms      Imidazoleacrylic acid * 5-Imidazoleacrylic acid *
               3-(1H-Imidazol-4-yl)-2-propenoic acid *
               2-Propenoic acid, 3-(1H-imidazol-4-yl)- (9CI) *
               Urocanic acid * Urocaninic acid
RTECS Number: NI3425200

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Caution: Avoid contact and inhalation.

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
Contamination of the eyes should be treated by immediate and prolonged irrigation with copious amounts of water.

INFORMATION FOR PHYSICIAN
Contamination of the eyes should be treated by immediate and
prolonged irrigation with copious amounts of water.

Section 5 - Fire Fighting Measures

EXPLOSION DATA
Dust Potential: This material, like most materials in powder form, is capable of creating a dust explosion.

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam. Water spray.

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

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Avoid contact and inhalation. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep container closed. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Government approved respirator.
Hand: Rubber gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties
Appearance: Color: White
Form: Powder

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<th>Value</th>
<th>At Temperature or Pressure</th>
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N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Materials to Avoid: Bases, Oxidizing agents, Reducing agents.

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

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. May cause irritation.

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA
Intravenous
Mouse
100 MG/KG
LD50
CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 1 MMOL/L
Cell Type: Other cell types
Mutation test: DNA inhibition

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION
S: 22 24/25
Safety Statements: Do not breathe dust. Avoid contact with skin and eyes.

US CLASSIFICATION AND LABEL TEXT
US Statements: Caution: Avoid contact and inhalation.

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

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: 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
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