```
SIGMA-ALDRICH
                     MATERIAL SAFETY DATA SHEET
                                              Date Printed: 04/08/2009
                                              Date Updated: 02/23/2009
                                                         Version 1.4
Section 1 - Product and Company Information
                             2'-DEOXYURIDINE 99-100%
Product Name
                             D5412
Product Number
Brand
                             SIGMA
                             Sigma-Aldrich Canada, Ltd
Company
Address
                             2149 Winston Park Drive
                             Oakville ON L6H 6J8 CA
Technical Phone:
                             9058299500
                             9058299292
Fax:
                             800-424-9300
Emergency Phone:
Section 2 - Composition/Information on Ingredient
Substance Name
                                                              SARA 313
(+)-2'-DEOXYURIDINE, 99+%
                                        951-78-0
Formula
                C9H12N2O5
                Deoxyribose uracil * Deoxyuridine *
Synonyms
                2'-Deoxyuridine * 2'-Desoxyuridine * Uracil
                desoxyuridine * dURD
RTECS Number:
                YU7490000
Section 3 - Hazards Identification
HMIS RATING
  HEALTH: 0
   FLAMMABILITY: 0
  REACTIVITY: 0
NFPA RATING
  HEALTH: 0
   FLAMMABILITY: 0
   REACTIVITY: 0
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
FLASH POINT
  N/A
AUTOIGNITION TEMP
FLAMMABILITY
  N/A
EXTINGUISHING MEDIA
   Suitable: Water spray. Carbon dioxide, dry chemical powder, or
   appropriate foam.
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 inhalation. Avoid contact with eyes, skin,
   and clothing. Avoid prolonged or repeated exposure.
STORAGE
   Suitable: Keep tightly 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: Use respirators and components tested and approved
   under appropriate government standards such as NIOSH (US) or CEN
   (EU). Respiratory protection is not required. Where protection
   from nuisance levels of dusts are desired, use type N95 (US) or
   type Pl (EN 143) dust masks.
   Hand: Compatible chemical-resistant gloves.
  Eye: Chemical safety goggles.
GENERAL HYGIENE MEASURES
  Wash contaminated clothing before reuse. Wash thoroughly after
  handling.
                                                             Page 2
SIGMA - D5412
                              www.sigma-aldrich.com
Section 9 - Physical/Chemical Properties
Appearance
                        Color: White
                        Form: Fine crystals
                                           At Temperature or Pressure
Property
                       Value
Molecular Weight
                       228.2 AMU
                       N/A
BP/BP Range
                       N/A
                      164 °C
MP/MP Range
                      N/A
Freezing Point
Vapor Pressure
                      N/A
                      N/A
Vapor Density
Saturated Vapor Conc. N/A
SG/Density
                        N/A
Bulk Density
Odor Threshold
Volatile%
                        N/A
VOC Content
                        N/A
                       N/A
Water Content
Solvent Content
                       N/A
Evaporation Rate
                       N/A
Viscosity
                       N/A
Surface Tension
                       N/A
Partition Coefficient N/A
Decomposition Temp.
                       N/A
Flash Point
                       N/A
Explosion Limits
                       N/A
Flammability
                        N/A
Autoignition Temp
                        N/A
Refractive Index
                        N/A
Optical Rotation
                       Degree of Rotation: 11 g/l Solvent: 1 M NaOH
                        +62 - +52 (+/-2)
                        N/A
Miscellaneous Data
Solubility
                        N/A
N/A - not available
Section 10 - Stability and Reactivity
STABILITY
  Materials to Avoid: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS
   Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide,
```

```
CHRONIC EXPOSURE - MUTAGEN
```

Species: Hamster Dose: 1 MMOL/L Cell Type: lung

No data available.

regulations.

transport.

s: 22-24/25

SARA LISTED: No

and eyes.

SIGMA - D5412

IATA

SIGMA - D5412

Nitrogen oxides.

skin absorption.

SIGNS AND SYMPTOMS OF EXPOSURE

ROUTE OF EXPOSURE

Section 11 - Toxicological Information

Skin Contact: May cause skin irritation. Eye Contact: May cause eye irritation.

Multiple Routes: May be harmful by inhalation, ingestion, or

To the best of our knowledge, the chemical, physical, and

toxicological properties have not been thoroughly investigated.

www.sigma-aldrich.com

Page 3

Page 4

Page 5

Species: Hamster Dose: 1 MMOL/L Cell Type: lung Mutation test: Mutation in mammalian somatic cells.

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

Non-Hazardous for Air Transport: Non-hazardous for air

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

Mutation test: DNA inhibition

Section 12 - Ecological Information

Section 13 - Disposal Considerations

Section 14 - Transport Information

Proper Shipping Name: None

Section 15 - Regulatory Information

UNITED STATES REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION

contains all the information required by the CPR. DSL: Yes NDSL: No Section 16 - Other Information

Copyright 2009 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

```
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
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

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.

www.sigma-aldrich.com

knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any

Safety Statements: Do not breathe dust. Avoid contact with skin