MATERIAL SAFETY DATA SHEET

Date Printed: 01/13/2009 Date Updated: 01/29/2006 Version 1.4

SARA 313

Section 1 - Product and Company Information Product Name

N-ACETYLPUTRESCINE HYDROCHLORIDE Product Number A8784 Brand ALDRICH

Company Address Oakville ON L6H 6J8 CA

9058299500 Technical Phone: 9058299292

Fax: 800-424-9300 Emergency Phone: Section 2 - Composition/Information on Ingredient

Substance Name N-ACETYLPUTRESCINE HYDROCHLORIDE 18233-70-0

C6H14N2O · HC1 Formula

Section 3 - Hazards Identification

Caution: The chemical, physical, and toxicological properties of

EMERGENCY OVERVIEW

this product have not been thoroughly investigated. Exercise due care.

HMIS RATING

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

NFPA RATING HEALTH: 1

FLAMMABILITY: 0 REACTIVITY: 0 For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures ORAL EXPOSURE

conscious. Call a physician. INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult,

If swallowed, wash out mouth with water provided person is

call a physician.

DERMAL EXPOSURE In case of skin contact, flush with copious amounts of water for

at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

FLASH POINT

N/A

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician. Section 5 - Fire Fighting Measures

and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

FLAMMABILITY N/A

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

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

FIREFIGHTING Protective Equipment: Wear self-contained breathing apparatus

AUTOIGNITION TEMP

166.7 AMU N/A N/A

Autoignition Temp Refractive Index N/A Optical Rotation N/A Miscellaneous Data N/A Solubility N/A N/A - not available Section 10 - Stability and Reactivity STABILITY Stable: Stable. HAZARDOUS DECOMPOSITION PRODUCTS Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas. 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.

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

The toxicological properties have not been thoroughly

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

toxicological properties have not been thoroughly investigated.

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

www.sigma-aldrich.com

Page 3

Page 4

Page 5

N/A

N/A

Section 12 - Ecological Information No data available.

Section 13 - Disposal Considerations

Section 14 - Transport Information

Proper Shipping Name: None

CONDITIONS AGGRAVATED BY EXPOSURE

SIGNS AND SYMPTOMS OF EXPOSURE

ALDRICH - A8784

investigated.

regulations.

DOT

IATA

transport. Section 15 - Regulatory Information US CLASSIFICATION AND LABEL TEXT

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS

The above information is believed to be correct but does not

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

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

US Statements: Caution: The chemical, physical, and toxicological properties of this product have not been

contains all the information required by the CPR.

thoroughly investigated. Exercise due care.

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

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

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

UNITED STATES REGULATORY INFORMATION

CANADA REGULATORY INFORMATION

Section 16 - Other Information

SARA LISTED: No

DSL: No NDSL: No

ALDRICH - A8784

paper copies for internal use only.

from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2009Sigma-Aldrich Co. License granted to make unlimited ALDRICH - A8784 www.sigma-aldrich.com

Wear protective equipment. 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 User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. STORAGE Suitable: Store at: 0-5°C Store at 2-8°C Section 8 - Exposure Controls / PPE ENGINEERING CONTROLS 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 thoroughly after handling. ALDRICH - A8784 www.sigma-aldrich.com Page 2 Section 9 - Physical/Chemical Properties Appearance Physical State: Solid Property Value At Temperature or Pressure Molecular Weight BP/BP Range MP/MP Range N/A Freezing Point N/A Vapor Pressure N/A N/A Vapor Density Saturated Vapor Conc. N/A SG/Density N/A Bulk Density Odor Threshold Volatile% N/A N/A VOC Content Water Content N/A Solvent Content N/A Evaporation Rate N/A Viscosity N/A Surface Tension Partition Coefficient N/A N/A Decomposition Temp. Flash Point N/A Explosion Limits N/A Flammability

Sigma-Aldrich Canada, Ltd 2149 Winston Park Drive