### MATERIAL SAFETY DATA SHEET

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Section 1 - Product and Company Information Product Name 4-HYDROXYBENZOIC ACID, 99% Product Number H20059 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 800-424-9300 Emergency Phone: 9058299292 Fax: Section 2 - Composition/Information on Ingredient CAS # Substance Name SARA 313 4-HYDROXYBENZOIC ACID 99-96-7 No Formula C7H6O3 Synonyms Acido p-idrossibenzoico (Italian) \* Benzoic acid, 4-hydroxy- (9CI) \* 4-Carboxyphenol \* p-Hydroxybenzoic acid \* 4-Hydroxybenzoic acid \* Kyselina 4-hydroxybenzoova (Czech) \* p-Oxybenzoesaure (German) \* p-Salicylic acid DH1925000 RTECS Number: Section 3 - Hazards Identification EMERGENCY OVERVIEW Irritant. Irritating to eyes. HMIS RATING HEALTH: 2 FLAMMABILITY: 0 **REACTIVITY: 0** NFPA RATING HEALTH: 2 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 N/A 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: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. STORAGE Suitable: Keep tightly closed. Section 8 - Exposure Controls / PPE ENGINEERING CONTROLS Safety shower and eye bath. Mechanical exhaust required. PERSONAL PROTECTIVE EQUIPMENT Respiratory: Government approved respirator. Hand: Compatible chemical-resistant gloves. Eye: Chemical safety goggles. GENERAL HYGIENE MEASURES Wash thoroughly after handling.

Appearance	Physical State: Sol Color: Very faintly	
Property	Value	At Temperature or Pressure
Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content Water Content Solvent Content Evaporation Rate Viscosity Surface Tension Partition Coefficient Decomposition Temp. Flash Point Explosion Limits Flammability Autoignition Temp Refractive Index Optical Rotation Miscellaneous Data	138.12 AMU 3.3 N/A 214 °C N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	Concentration: 1 g/l
Solubility	Solubility in Water	:5 mg/ml H2O

N/A = not available

Section 10 - Stability and Reactivity

## STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Phenol.

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: Causes eye irritation. Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. TOXICITY DATA Oral Rat > 10000 mg/kg LD50 Remarks: Behavioral: Muscle weakness. Lungs, Thorax, or Respiration: Dyspnea. Intraperitoneal Rat 340 MG/KG LD50 Remarks: Behavioral:Muscle weakness. Oral Mouse 2200 mg/kg LD50 Intraperitoneal Mouse 210 MG/KG T.D50 Remarks: Peripheral Nerve and Sensation: Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral:Somnolence (general depressed activity). Behavioral:Ataxia. Subcutaneous Mouse 1050 MG/KG LD50 IRRITATION DATA Eyes Rabbit Remarks: Moderate irritation effect Skin Rabbit 24 н Remarks: Mild irritation effect Section 12 - Ecological Information ACUTE ECOTOXICITY TESTS Test Type: LC0 Fish Species: Leuciscus idus Time: 48 h Value: 200 mg/l ELIMINATION Elimination: > 90 % Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION Contact a licensed professional waste disposal service to dispose of this material. 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 Symbol of Danger: Xi Indication of Danger: Irritant. R: 36 Risk Statements: Irritating to eyes. S: 26 Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

US CLASSIFICATION AND LABEL TEXT Indication of Danger: Irritant. Risk Statements: Irritating to eyes. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.