Section 1 - Product and Company Information

Product Name                      GAMMA-OXO-1-PYRENEBUTYRIC ACID, TECH.
Product Number                    275646
Brand                             ALDRICH
Company                           Sigma-Aldrich
Street Address                    3050 Spruce Street
City, State, Zip, Country         SAINT LOUIS MO 63103 US
Technical Phone:                  314 771 5765
Emergency Phone:                  414 273 3850 Ext. 5996
Fax:                              800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name                     CAS #          SARA 313
GAMMA-OXO-1-PYRENEBUTYRIC ACID, TECH. 7499-60-7  No

Formula                          C20H14O3

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful.
Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin.

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
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.

EXPOSURE HAZARD(S)  
Material: Irritant. Harmful solid.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)  
Wear self-contained breathing apparatus, 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. Do not get in eyes, on skin, on clothing.

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  

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

Section 9 - Physical/Chemical Properties

| Appearance | N/A |
| Property | Value | At Temperature or Pressure |
| Molecular Weight | 302.33 AMU |
| pH | N/A |
BP/BP Range             N/A
MP/MP Range             184 °C
Freezing Point          N/A
Vapor Pressure          N/A
Vapor Density           N/A
Saturated Vapor Conc.   N/A
Bulk Density            N/A
Odor Threshold          N/A
Volatile%               N/A
VOC Content             N/A
Water Content           N/A
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        N/A
Miscellaneous Data      N/A
Solubility              N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
   Materials to Avoid: Strong oxidizing agents, Strong bases.

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

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
   Inhalation: Material is irritating to mucous membranes and upper respiratory tract.
   Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation.

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

Section 12 - Ecological Information

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
Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 20/21/22 36/37/38
Risk Statements: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.
S: 26 36
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.
Safety Statements: 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 contains all the information required by the CPR.
DSL: No
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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.