

1 - Product and Company Information

ProductNameOCTANOIC-1,2,3,4-13C4 ACID, 99 ATOM % 1&

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Causes burns.

3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I
OCTANOIC-1,2,3,4-13C4 ACID, 99 ATOM % 13C	159118-65-7	None	None
Formula	C8H16O2		
Molecular Weight	148.18 AMU		

4 - First Aid Measures

AFTER INHALATION  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER EYE CONTACT  
Assure adequate flushing of the eyes by separating the eyelids with fingers.

AFTER INGESTION  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL  
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)  
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP  
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING  
Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE  
Conditions of Storage: Keep tightly closed. Store in a cool dry place.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS  
Safety shower and eye bath. Use only in a chemical fume hood.

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

PERSONAL PROTECTIVE EQUIPMENT  
Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.  
Hand Protection: Rubber gloves.  
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

pH	N/A	
BP/BP Range	237 °C	
MP/MP Range	16.0 - 16.5 °C	
Flash Point	113 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	0.929 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

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

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

11 - Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE  
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynxand bronchi, chemical pneumonitis, and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

ROUTE OF EXPOSURE  
Multiple Routes: Harmful if swallowed, inhaled, or absorbed through skin. Causes burns.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL  
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.

14 - Transport Information

RID/ADR  
UN#: 3265  
Class: 8  
PG: II  
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.

IMDG  
UN#: 3265  
Class: 8  
PG: II  
Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
Marine Pollutant: No  
Severe Marine Pollutant: No  
  
Technical Name: Required

IATA  
UN#: 3265  
Class: 8  
PG: II  
Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.  
Inhalation Packing Group I: No  
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES  
INDICATION OF DANGER: C  
Corrosive.  
R-PHRASES: 34  
Causes burns.  
S-PHRASES: 26-27-36/37/39-45  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Caution: Substance not yet fully tested (EU).

COUNTRY SPECIFIC INFORMATION

Germany  
WGK: 3  
Self-Classification

16 - Other Information