

## Material Safety Data Sheet

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Version 1.6  
Regulation (EC) No 1907/2006

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1 - Product and Company Information

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Product Name PHENYLACETIC ACID  
Product Number 78490  
  
Company Sigma-Aldrich Company Ltd.  
The Old Brickyard  
New Road, Gillingham SP8 4XT  
United Kingdom  
  
Technical Phone # 44-(0)-1747-833000  
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Emergency Phone # 44-(0)-1747-833100

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2 - Hazards Identification

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SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Irritating to eyes, respiratory system and skin.

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3 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
PHENYLACETIC ACID	103-82-2	203-148-6	None

Formula C<sub>8</sub>H<sub>8</sub>O<sub>2</sub>  
Molecular Weight 136.15 AMU  
Synonyms Benzenacetic acid \* Benzeneacetic acid \*  
Kyselina fenylactova (Czech) \* Phenylacetic acid  
\* omega-Phenylacetic acid \* alpha-Toluic acid

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4 - First Aid Measures

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## AFTER INHALATION

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

## AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

## AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

## AFTER INGESTION

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

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5 - Fire Fighting Measures

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EXTINGUISHING MEDIA

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

#### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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### 6 - Accidental Release Measures

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#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, 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.

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### 7 - Handling and Storage

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#### HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

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### 8 - Exposure Controls / Personal Protection

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#### ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

#### 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: Compatible chemical-resistant gloves.  
Eye Protection: Chemical safety goggles.

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### 9 - Physical and Chemical Properties

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#### Appearance

Physical State: Solid  
Color: Very faintly beige  
Form: Fine crystals  
Odor: Stench.

#### Property

Value At Temperature or Pressure

pH

N/A

BP/BP Range

265 °C

760 mmHg

MP/MP Range

76.5 °C

Flash Point

132 °C

Flammability

N/A

Autoignition Temp

N/A

Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	1 mmHg	97 °C
SG/Density	1.081 g/cm3	
Partition Coefficient	Log Kow: 1.370 - 1.4	
	30	
Viscosity	N/A	
Vapor Density	4 g/l	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	< 0.5 %	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water:15 mg/ml H2O	

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

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

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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RTECS NUMBER: AJ2430000

### ACUTE TOXICITY

LD50  
Oral  
Rat  
2250 mg/kg

LD50  
Intraperitoneal  
Rat  
1600 MG/KG

LD50  
Oral  
Mouse  
2250 mg/kg

LD50  
Intraperitoneal  
Mouse  
2270 MG/KG

LD50  
Subcutaneous  
Mouse  
1500 MG/KG

LD50

Skin  
Rabbit  
> 5000 mg/kg

LD50  
Oral  
Guinea pig  
2250 mg/kg

#### IRRITATION DATA

Eyes  
Rabbit  
100 mg  
24H  
Remarks: Moderate irritation effect

#### SIGNS AND SYMPTOMS OF EXPOSURE

Nausea, dizziness, and headache. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Exposure can cause:

#### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: Causes eye irritation.  
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.  
Ingestion: May be harmful if swallowed.

#### CHRONIC EXPOSURE - TERATOGEN

Species: Rat Rat  
Dose: 450 MG/KG 450 MG/KG  
Route of Application: Oral Oral  
Exposure Time: (4D PREG) (4D PREG)  
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

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#### 12 - Ecological Information

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No data available.

#### ECOTOXICOLOGICAL EFFECTS

Test Type: LC50 Fish  
Species: other fish  
Time: 96 h  
Value: 1,273 mg/l

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#### 13 - Disposal Considerations

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#### SUBSTANCE DISPOSAL

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.

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#### 14 - Transport Information

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RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

UN#: 3335

Class: 9

Proper Shipping Name: Aviation Regulated Solid, N.O.S.

Inhalation Packing Group I: No

Technical Name: Required

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15 - Regulatory Information

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CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xi

Irritant.

R-PHRASES: 36/37/38

Irritating to eyes, respiratory system and skin.

S-PHRASES: 26-36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

ID-Number: 2278

Classification according to appendix 3.

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16 - Other Information

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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 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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