

MATERIAL SAFETY DATA SHEET

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Version 1.10

Section 1 - Product and Company Information

Product Name	BENZOIC ACID, REAGENTPLUS(TM), 99%
Product Number	109479
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
BENZOIC ACID	65-85-0	No
Formula	C7H6O2	
Synonyms	Acide benzoique (French) * Acido benzoico (Italian) * Benzenecarboxylic acid * Benzeneformic acid * Benzenemethanoic acid * Benzoate * Benzoesaure (German) * Carboxybenzene * Dracrylic acid * E 210 * HA 1 (acid) * Kyselina benzoova (Czech) * Phenylcarboxylic acid * Phenylformic acid * Retarder BA * Retardex * Salvo liquid * Salvo powder * Tenn-Plas	
RTECS Number:	DG0875000	

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful.

Harmful if swallowed. Irritating to eyes, respiratory system and skin.

HMIS RATING

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

NFPA RATING

HEALTH: 2

FLAMMABILITY: 1

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 skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

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

FLASH POINT

249.8 °F 121 °C Method: closed cup

AUTOIGNITION TEMP

572 °C

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 TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

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.

EXPOSURE LIMITS

Country	Source	Type	Value
USA	ACGIH	TLV	10 mg/m3
Remarks: inhalable particulate			
USA	ACGIH	TLV	3 mg/m3
Remarks: respirable dust in air			
USA	OSHA.	PEL	15 mg/m3
Remarks: total dust			
USA	OSHA.	PEL	5 mg/m3
Remarks: respirable dust			

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
	Color: White	
	Form: Fine crystals	
Property	Value	At Temperature or Pressure
Molecular Weight	122.12 AMU	
pH	N/A	
BP/BP Range	248.9 °C	760 mmHg
MP/MP Range	121 °C	
Freezing Point	N/A	
Vapor Pressure	10 mmHg	132 °C
Vapor Density	4.21 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	1.32 g/cm3	
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	249.8 °F 121 °C	Method: closed cup
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	572 °C	
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.

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

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

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: 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

910.3 mg/kg

LD50

Oral

Man

500 mg/kg

LDLO

Oral

Rat

1700 mg/kg

LD50

Inhalation

Rat

> 26 mg/m³

LC50

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation. Behavioral:Somnolence (general depressed activity).

Intraperitoneal

Rat

1600 MG/KG

LD50

Intravenous

Rat

1700 MG/KG

LD50

Oral

Mouse

1940 mg/kg

LD50

Remarks: Behavioral:Somnolence (general depressed activity).
Lungs, Thorax, or Respiration:Respiratory depression.
Gastrointestinal:Other changes.

Intraperitoneal
Mouse
1460 MG/KG
LD50

Skin
Rabbit
> 10000 mg/kg
LD50

IRRITATION DATA

Eyes
Rabbit
Remarks: Mild irritation effect
Eyes
Remarks: Severe irritation effect

Skin
Human
22 mg
3D
I
Remarks: Moderate irritation effect

Skin
Rabbit
500 mg
24H
Remarks: Mild irritation effect

Eyes
Rabbit
100 mg
Remarks: Severe irritation effect

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 5 MMOL/L
Cell Type: lymphocyte
Mutation test: DNA inhibition

Section 12 - Ecological Information

No data available.

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: Environmentally hazardous
substances, solid, n.o.s.
UN#: 3077
Class: 9
Packing Group: Packing Group III
Hazard Label: Class 9
PIH: Not PIH

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: 22 36
Risk Statements: Harmful if swallowed. 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: Harmful.
Risk Statements: Harmful 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.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No
TSCA INVENTORY ITEM: Yes

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
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