

Benzoic Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Benzoic Acid**Synonyms/Generic Names:** Benzene Carboxylic Acid; Carboxybenzene; Dracrylic Acid; Phenyl Carboxylic Acid; Phenylformic Acid**SDS Number:** 93.00**Product Use:** For Educational Use Only**Manufacturer:** Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925**For More Information Contact:** Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)**In Case of Emergency Call:** CHEMTREC – 800-424-9300 or 703-527-3887 (24 Hours/Day, 7Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Harmful by ingestion, Irritant, Harmful by inhalation.**Target Organs:** None**Signal Words:** Danger**Pictograms:****GHS Classification:**

Acute toxicity, Oral	Category 5
Serious eye damage	Category 1
Specific target organ toxicity-single exposure	Category 3

GHS Label Elements, including precautionary statements:**Hazard Statements:**

H303	May be harmful if swallowed.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary Statements:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280	Wear protective gloves/ eye protection/ face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	Harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Ingestion	Harmful if swallowed.

NFPA Ratings

Health	2
Flammability	1
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	1
Reactivity	0
Personal	E

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Benzoic Acid	100	65-85-0	200-618-2	C ₇ H ₆ O ₂	122.12 g/mol

4. FIRST- AID MEASURES

Eyes	In case of eye contact, rinse with plenty of water and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Class II Combustible Liquid. Use water-spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment and precautions for firefighters	In the event of a fire, wear full protective clothing and NIOSH/MSHA-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Do not disperse dust into the air during clean-up. Any release to the

	environment may require reporting to federal/national or local agencies.
Methods and materials for containment and cleaning up	Ventilate the release area. Do not disperse dust into the air during clean-up. Use appropriate tools to pick up any spill. Place in a closed container. Dispose of all waste or cleanup materials in accordance with regulations. Containers, even when empty, will retain residue and vapors.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment.

Conditions for safe storage, including any incompatibilities

Store in a tightly closed container. Store in a dry, cool, corrosion resistant and ventilated area. Protect against light. Protect exposed tissues. Do not ingest or breathe vapors. Do not become exposed to the material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Controls: Contains no substances with occupational safety exposure limits.

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	White powder, crystals, chips, or granules, or white to light tan viscous, molten liquid.
Odor	Benzoin or benzaldehyde.
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	122°C (152°F)
Initial boiling point and boiling range	249°C (480°F)
Flash point	121°C (250°F) (closed cup)
Evaporation rate	Not Available
Flammability (solid, gas)	Class II Combustible Liquid.
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	13 hPa (10 mmHg) at 132°C (270°F)
Vapor density	4.22 (air = 1)
Relative density	Not Available
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	log Pow: 1.88
Auto-ignition temperature	570 - 573°C (1058 - 1063°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Not Available
Incompatible Materials	Oxidizers, strong bases, strong reducing agents
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	LD50 Dermal –rabbit - > 10000 mg/kg
Eyes	Eyes – rabbit – Severe eye irritation.
Respiratory	LC50 Inhalation – rat – 4 hours - >12.2 mg/l
Ingestion	LD50 Oral – rat – 1700 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Redness, itching, burning
Eyes	Redness, itching, burning
Respiratory	Sneezing, coughing
Ingestion	May cause nausea, vomiting, or diarrhea

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Inhalation - May cause respiratory irritation. - Lungs
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50 – Gambusia affinis (mosquito fish) – 180 mg/l – 96 hours
Aquatic Invertebrate	Not Available
Terrestrial	EC50 – Scenedesmus quadricauda (Green algae) - > 10 mg/l – 14 days

Persistence and Degradability	Not Available
Bioaccumulative Potential	Leuciscus idus (Golden orfe) – 3 d BCF: 5.3
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORT INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	Not Dangerous Goods
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Benzoic Acid
SARA 312	Benzoic Acid
SARA 313	Not Listed
WHMIS Canada	D2B - Poisonous and infectious material - Other effects - Toxic

16. OTHER INFORMATION

Revision	Date
Revision 1	01/28/2013
Revision 2	06/24/2013

Disclaimer: Columbus Chemical Industries, Inc. ("Columbus") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Columbus has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. COLUMBUS MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE.