

2-NITROBENZOIC ACID

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1. Product Identification

Synonyms: o-Nitrobenzoic Acid

CAS No.: 552-16-9

Atomic Weight: 107.868

Chemical Formula: $\text{NO}_2\text{C}_6\text{H}_4\text{COOH}$

Product Codes: CHEM-609 and others.

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
2-Nitrobenzoic Acid	552-16-9	98+%	Yes

3. Hazards Identification

Emergency Overview

Danger of cumulative effect.

SAF-T-DATA^(tm) Ratings

Health Rating: 2 - Moderate (Life)

Flammability Rating: 3 - Severe

Reactivity Rating: 2 - Moderate

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:

May cause respiratory tract irritation.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Skin Contact:

May cause skin irritation. May be absorbed through the skin.

Eye Contact:

May cause eye irritation and possible burns.

Chronic Exposure:

May cause fetal effects.

4. First Aid Measures

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid. No specific treatment is necessary, since this material is expected to be non-hazardous.

Skin Contact:

Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Remove contaminated clothing and shoes.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Note to Physician: Absorption of this product into the body may cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Moderate degrees of cyanosis need to be treated only by supportive measures: bed rest and oxygen inhalation. For methemoglobinemia, administer oxygen alone or with Methylene Blue depending on the methemoglobin concentration in the blood. Cleansing of the entire contaminated area of the body is of utmost importance.

5. Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

6. Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

7. Handling and Storage

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse. Keep container closed when not in use. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. Exposure Controls/Personal Protection

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment:

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. Physical and Chemical Properties

Appearance:

Yellowish-white crystalline powder.

Odor:

Odorless.

Solubility:

Soluble in water.

Density:

No information found.

pH:

No information found.

% Volatiles by volume @ 21°C (70°F):

0

Boiling Point:

No information found.

Melting Point:

147°C

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under normal temperatures and pressures.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization:

Has not been reported

Incompatibilities:

Strong oxidizing agents; Strong bases; Reducing agents.

Conditions to Avoid:

Incompatible materials, dust generation, strong oxidants.

11. Toxicological Information

Toxicological Data:**RTECS#:**

CAS# 552-16-9: DH5050000

LD50/LC50:Not available.

Carcinogenicity: 2-Nitrobenzoic acid - Not listed by ACGIH, IARC, or NTP.

Other:See actual entry in RTECS for complete information.

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

14. Transport Information

Not regulated.

15. Regulatory Information

European/International Regulation:

European Labeling in Accordance with EC Directives

Hazard Symbols:

XNRisk

Phrases:

R 33 Danger of cumulative effects.

Safety Phrases:

S 22 Do not breathe dust. S 23 Do not inhale gas/fumes/vapour/spray. S 24/25 Avoid contact with skin and eyes. WGK (Water Danger/Protection)

CAS# 552-16-9:

No information available.

Canada:

CAS# 552-16-9 is listed on Canada's DSL List.

CAS# 552-16-9 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL TSCA:

CAS# 552-16-9 is listed on the TSCA inventory.

16. Other Information

Label Hazard Warning:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:

None.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent and Consumer Hobby.

Revision Information:

None

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