

Material Safety Data Sheet

Benzyl cyanide, 99+ %

Section 1 - Chemical Product and Company Identification

MSDS Name: Benzyl cyanide, 99+ %

Synonyms: Benzeneacetonitrile; Benzyl cyanide; Benzyl nitrile; (Cyanomethyl) benzene; Phenyl acetonitrile; alpha-Tolunitrile.

Company Identification

MANUFACTURER'S NAME & ADDRESS

SHABBIR MEDICAL HALL

15-6-109 AFZAL GUNJ

HYDERABAD

TELANGANA 500012 INDIA

EMERGENCY TEL

04023447133

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
140-29-4	Phenylacetonitrile	>99.0	205-410-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colourless.

Danger! May be fatal if inhaled. Harmful if swallowed. Harmful if absorbed through the skin. Causes eye and skin irritation. May cause respiratory and digestive tract irritation. Metabolized to cyanide in the body, which may cause headache, dizziness, weakness, unconsciousness, convulsions, coma and possible death. May cause liver and kidney damage.



Target Organs: Blood, kidneys, liver, spleen, brain.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. Harmful if absorbed through the skin. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness and possible death. Ingestion may result in symptoms similar to cyanide poisoning which is characterized by asphyxiation.

Inhalation: May be fatal if inhaled. May cause effects similar to those described for ingestion.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.

Section 4 - First Aid Measures

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

Skin: Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove all contaminated clothing immediately. Treat patient as for inhalation.

Ingestion: Do not induce vomiting. 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 immediately. SPEED IS ESSENTIAL. A DOCTOR MUST BE NOTIFIED AT ONCE. Treat patient as for inhalation.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. SPEED IS ESSENTIAL, OBTAIN MEDICAL AID IMMEDIATELY.

Notes to Physician: Exposure should be treated as a cyanide poisoning.

Antidote: Always have a cyanide antidote kit on hand when working with cyanide compounds. Get medical advice to use.

Section 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. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam. Do NOT use straight streams of water.

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Flash Point: 102 deg C (215.60 deg F)
Autoignition Temperature: Not available.
Explosion Limits, Lower:Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Phenylacetonitrile	none listed	none listed	5 mg/m ³ TWA (listed under Cyanide anion).

OSHA Vacated PELs: Phenylacetonitrile: No OSHA Vacated PELs are listed for this chemical.

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.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colourless

Odor: aromatic odor

pH: Not available.

Vapor Pressure: 0.1 mm Hg @20C

Vapor Density: 4.04

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 234 deg C

Freezing/Melting Point: -23.8 deg C

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: 1.0200g/cm³

Molecular Formula: C₈H₇N

Molecular Weight: 117.15

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong acids, strong bases, strong oxidizing agents, strong reducing agents, sodium hypochlorite.

Hazardous Decomposition Products: Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen.

Hazardous Polymerization: Has not been reported.

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Section 11 - Toxicological Information

RTECS#:**CAS#** 140-29-4: AM1400000**LD50/LC50:****CAS#** 140-29-4:

Draize test, rabbit, skin: 500 mg/24H Mild;
Inhalation, mouse: LC50 = 100 mg/m³/2H;
Inhalation, rat: LC50 = 430 mg/m³/2H;
Oral, mouse: LD50 = 45500 ug/kg;
Oral, rat: LD50 = 270 mg/kg;
Skin, rabbit: LD50 = 270 mg/kg;
Skin, rat: LD50 = 2 gm/kg;

TCLo(Inhalation, rat) = 60 mg/m³/2H/4W-I EFFECTS: Lungs, Thorax, or Respiration
- structural or functional change in trachea or bronchi; Liver - other changes;
Nutritional and Gross Metabolic - weight loss or decreased weight gain.

Carcinogenicity:**CAS#** 140-29-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.**Epidemiology:** No information found**Teratogenicity:** No information found**Reproductive Effects:** No information found**Mutagenicity:** No information found**Neurotoxicity:** No information found**Other Studies:**

Section 12 - Ecological Information

Ecotoxicity: Bacteria: Phytobacterium phosphoreum: EC50 = 1.2-1.51 mg/L;
5,15,30 minutes; Microtox test; 15 degrees C No data available.

Environmental: No information found.**Physical:** No information found.**Other:** No information available.A handwritten signature in blue ink, appearing to be 'J. D.' or similar, written over a light blue grid background.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	NITRILES, TOXIC, LIQUID, N.O.S. *	NITRILES, TOXIC, LIQUID, N.O.S.	NITRILES, TOXIC, LIQUID, N.O.S.
Hazard Class:	6.1	6.1	6.1
UN Number:	3276	3276	3276
Packing Group:	II	II	II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 140-29-4 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

CAS# 140-29-4: 500 lb TPQ




SARA Codes

CAS # 140-29-4: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. CAS# 140-29-4 is listed as a Priority Pollutant under the Clean Water Act. CAS# 140-29-4 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 140-29-4 can be found on the following state right to know lists: California, (listed as Cyanides, inorganic salts), New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

T+

Risk Phrases:

R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

Safety Phrases:

S 23 Do not inhale gas/fumes/vapour/spray.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 140-29-4: 2

Canada - DSL/NDSL

CAS# 140-29-4 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D1B, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 140-29-4 is listed on the Canadian Ingredient Disclosure List.

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Section 16 - Additional Information

This information is furnished without warranty, representation, inducement, or license of any kind, except that it is believed accurate to the best of our knowledge, or obtained from sources believed to be accurate. SHABBIR MEDICAL HALL does not assume any legal responsibility for use or reliance upon same. Customers are encouraged to conduct their own tests. Before using any chemical, read its label and product literature

