

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name **Benzyl cyanide**
Product Code 097731
CAS Number 140-29-4
Other Names Phenylacetonitrile
a-Cyanotoluene
a-Tolunitrile
IUPAC
MFCD Number MFCD00001894
EC/EINECS 205-410-5
REACH Number

2. Relevant identified uses of the substance or mixture and uses advised against

Research and Development

3. Details of the supplier of the safety data sheet

Fluorochem Ltd
Unit 14, Graphite Way
Hadfield
Derbyshire
SK13 1QH
UK

Telephone: +44(0)1457 860111
Fax: +44(0)1457 892799
Email: sds@fluorochem.co.uk



4. Emergency telephone number

+44(0)7855 268577 -

2. Hazards Identification

1. Classification of the substance or mixture

H301	Acute Tox. 3	
H311	Acute Tox. 3	
H330	Acute Tox. 2	

2. Label elements

Signal Word **Danger**



Hazard Statements

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H330	Fatal if inhaled.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P361	Remove/Take off immediately all contaminated clothing.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Benzyl cyanide

Assay:100% CAS Number :140-29-4

2. Mixtures

Not Relevant

4. First Aid Measures

1. Description of first aid measures

Skin Contact P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

Eye Contact Rinse opened eye for several minutes under running water.

Ingestion P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Inhalation P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

2. Most important symptoms and effects

There may be pain and redness.
May cause permanent damage.
There may be difficulty swallowing.

3. Indication of any immediate medical attention

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

5. Firefighting measures

1. Extinguishing Media

Suitable Carbon dioxide.
Alcohol resistant foam.
Dry chemical powder.

Unsuitable no data

2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

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

6. Accidental Release Measures

1. Personal Precautions

Evacuate the area immediately.
Do not attempt to take action without suitable protective clothing – see section 8 of SDS.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.
Alert the neighbourhood to the presence of fumes or gas.

3. Methods & Materials

Mix with sand or vermiculite.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

No Special Measures Required

7. Handling and Storage

1. Personal Precautions

<i>Safe Handling</i>	Ensure there is sufficient ventilation of the area. P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
<i>Protection against explosions and fires</i>	P361: Remove/Take off immediately all contaminated clothing. P363: Wash contaminated clothing before reuse.

2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Store in cool, well ventilated area. Keep container tightly closed.
<i>Storage Controls</i>	No special requirements
<i>Maintaining Integrity</i>	Store away from oxidising agents Keep in tightly closed container in cool area away from direct sunlight or heat sources.
<i>Other advice</i>	P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

<i>General protective and hygiene measures</i>	P280: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
<i>Engineering measures</i>	P271: Use only outdoors or in a well-ventilated area. Ensure there is sufficient ventilation of the area.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields.
<i>Hand protection</i>	Protective gloves.
<i>Respiratory protection</i>	P260: Do not breathe dust/fume/gas/mist/vapours/spray. P284: Wear respiratory protection. Self-contained breathing apparatus must be available in case of emergency.
<i>Skin protection</i>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
<i>Other personal protection advice</i>	no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Clear colourless to slightly pale yellow liquid
Odour	Aromatic
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	-24°C
Initial boiling point and boiling range	230°C

Flash point	101°C
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	0.1kPa/60°C
Vapour density	4.0
Relative density	1.02
Solubility(ies):	Ether, Alcohols, Acetone. Insoluble in water
Partition coefficient: n-octanol/water	1.56
Auto-ignition temperature	590°C
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

no unusual reactivity

2. Stability

Stable under normal conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4. Conditions to Avoid

no specific conditions to avoid

5. Incompatible Materials

Oxidising agents.
 Reducing agents.
 Strong acids.
 Strong bases.

6. Hazardous Decomposition Products

In combustion emits toxic fumes.
 In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
 In combustion emits toxic fumes of nitrogen oxides.

11. Toxicology information

1. Information

<i>Acute Toxicity</i>	ihl-mus LC50:100 mg/m3/2H ihl-rat LC50:430 mg/m3/2H orl-rat LD50:270 mg/kg skn-rbt LD50:270 mg/kg
<i>Skin corrosion/irritation</i>	irritant for skin and mucous membranes skn-rbt 500 mg/24H MLD
<i>Serious eye Damage/irritation</i>	irritant effect
<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	sln-dmg-ihl 170 ppm
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known

STOT-single exposure not known

STOT-repeated exposure not known

Aspiration hazard not known

2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC,NTP,OSHA or ACGIH

12. Ecological Information

1. Toxicity

not known

2. Persistence and degradability

77% (by BOD), 100% (by HPLC), 96% (by TOC)

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

Log Pow: 1.56

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

1. **UN Number:** 2470
2. **Shipping Name:** Phenylacetonitrile, liquid
3. **Transport hazard class(es):** : 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Road (ADR)

1. **UN Number:** 2470
2. **Shipping Name:** PHENYLACETONITRILE, LIQUID
3. **Transport hazard class(es):** : 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 2470
2. **Shipping Name:** Phenylacetonitrile, liquid
3. **Transport hazard class(es):** : 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:** IBCINS: IBC03

UNTANKINS: T4
TANKPROV: TP1

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

2. Associated risk phrases according to European directive 67/548/EEC

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.