

3,5-Dinitrobenzotrile 4110-35-4 MSDS

Section 1 - Chemical Product MSDS Name:3 5-Dinitrobenzotrile 97% Material Safety Data Sheet

Synonym:None known

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
4110-35-4	3, 5-Dinitrobenzotrile	97	223-889-9

Hazard Symbols: XN

Risk Phrases: 20/21

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Harmful by inhalation and in contact with skin.The toxicological properties of this material have not been fully investigated.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration.

Ingestion:

May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness and possible death.

Inhalation:

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be metabolized to cyanide which in turns act by inhibiting cytochrome oxidase impairing cellular respiration.

Chronic:

May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration.

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.

Skin:

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

Ingestion:

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

May be partially metabolized to cyanide in the body.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Provide ventilation.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Use with adequate ventilation.

Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

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:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 4110-35-4: 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:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Powder

Color: pale yellow

Odor: none reported

pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 126.00 - 130.00 deg C

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water:

Specific Gravity/Density:

Molecular Formula: C7H3N3O4

Molecular Weight: 193.12

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:

Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong bases.

Hazardous Decomposition Products:

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

Hazardous Polymerization: Has not been reported

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 4110-35-4: DI4365000 LD50/LC50:

Not available.

Carcinogenicity:

3,5-Dinitrobenzotrile - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Section 13 - DISPOSAL CONSIDERATIONS

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

Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.*

Hazard Class: 6.1

UN Number: 2811

Packing Group: III

IMO

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: 2811

Packing Group: III

RID/ADR

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: 2811

Packing group: III

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 20/21 Harmful by inhalation and in contact with skin.

Safety Phrases:

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

S 28A After contact with skin, wash immediately with plenty of water.

S 37 Wear suitable gloves.

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# 4110-35-4: No information available.

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.

CAS# 4110-35-4 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 4110-35-4 is not listed on the TSCA inventory.

It is for research and development use only.

SECTION 16 - ADDITIONAL INFORMATION

N/A