

Description of DICYANDIAMIDE

DICYANDIAMIDE(DCDA, Cyanoguanidine, Dicyanodiamide)
Formula of : (NH₂CN)₂
F.W. of: 84
CAS no. of: 461-58-5
HS code of: 2926.2000

White crystal,Relative density in 1.40, melting point is 207-212 degree. It is soluble in water and alcohol,almost insoluble in ethyl ether and benzene, Stable when dry, non flammable.

Specification of DICYANDIAMIDE

Items	Specification
Content	99.5% min
Water content	0.30% max
Ash content	0.05% max
Calcium content	200ppm max

Application of DICYANDIAMIDE

1. used to make highly efficient flocculan and paper deinking agent.
2. used as cuing agent for epoxy resin.
3. used as textile add itives to produce fixing agent Y,fixing agent M and formaldehyde free fixing agent.

used to make pharmaceutical products. like guanidine hydrochloride,guanidine nitrate,guanidine carbonate etc.,dicy of low calcium eontent is mostly used in the production.metformin,metformin tydrochloride and phenformin.

4. curing agent for epoxy resin adhesive in FR-4 CCL production.
5. One Component Adhesives
6. Epoxy Powder Coatings
7. Prepregs and Film Adhesives
8. Electronic Potting and Encapsulating Compounds

Packing&Storage of DICYANDIAMIDE

Packing: 25kg plastic woven bags lined with plastic bags,20mts/20'fcl without pallets.

Storage: stored in cool,dry and ventilated warehouse,Away from moisture and handle with care when transportation,loading and unloading.

MSDS of DICYANDIAMIDE

Material Safety Data Sheets of DICYANDIAMIDE, 99.5%

Section 1 - Chemical Product and Company Identification

MSDS Name: DICYANDIAMIDE, 99.5%
H.S. CODE NO.2926.2000
Synonyms: Cyanoguanidine, Dicyanodiamide
Molecular formula: (NH₂CN)₂

Section 2 - Composition, Information on Ingredients

CAS# 461-58-5
Chemical Name: DICYANDIAMIDE,99.5%

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful by inhalation, in contact with skin and if swallowed.

POTENTIAL HEALTH EFFECTS

Eye May cause eye irritation.

Skin Harmful if absorbed through the skin.

Ingestion Harmful if swallowed. The toxicological properties of this substance have not been fully investigated.

Inhalation Harmful if inhaled. The toxicological properties of this substance have not been fully investigated.

Chronic Not available.

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 soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion Get medical aid. Wash mouth out with water.

Inhalation Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Get medical aid.

Notes to Physician

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.

Extinguishing Media In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant 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.

Section 7 - Handling and Storage

Handling Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage Store in a cool, dry place. Store in a tightly closed container.

Section 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 European Standard EN166.

Skin Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing Wear appropriate protective clothing to prevent skin exposure.

Respirators Follow the OSHA respirator regulations found in European Standard EN 149. Always use European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State Crystalline powder

Appearance white

Odor Not available.

pH Not available.

Vapor Pressure Not available.

Viscosity Not available.

Boiling Point Not available.

Freezing/Melting Point 209.00 - 212.00 deg C

Autoignition Temperature Not available.

Flash Point Not available.

Explosion Limits, lower Not available.

Explosion Limits, upper Not available.

Decomposition Temperature

Solubility in water 32 g/l in water (20 c)

Specific Gravity/Density
Molecular Formula C2H4N4
Molecular Weight 84.08

Section 10 - Stability and Reactivity

Chemical Stability Stable under normal temperatures and pressures.
Conditions to Avoid Incompatible materials.
Incompatibilities with Other Materials Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS# CAS# 461-58-5: ME9950000
LD50/LC50 CAS# 461-58-5: Oral, mouse: LD50 = >10 gm/kg.
Carcinogenicity DICYANDIAMIDE, 99.5% - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
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 IMO RID/ADR
Shipping Name: - - Not regulated.
Hazard Class: - - -
UN Number: - - -
Packing Group: - - -

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN
Risk Phrases:
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
Safety Phrases:
S 24/25 Avoid contact with skin and eyes.
WGK (Water Danger/Protection)
CAS# 461-58-5: 1
United Kingdom Occupational Exposure Limits

Section 16 - Additional Information

DICYANDIAMIDE raw material

1) Ammonium sulfate and Sulfuric acid
calcium carbide

DICYANDIAMIDE end goods

DCDA is a kind of material to produce melamine and intermediate of synthetic drug, pesticides and dye. It can be produced guanidine nitrate, fixing agent of dye printing, sizing agent, compound fertilizer, etc.

Substitute of DICYANDIAMIDE

Thiocyanate salts, persulfate salts, cellulose. Thiocyanate salts, persulfate salts, cellulose.

Importing & exporting rules of DICYANDIAMIDE

Normal.