



Material Safety Data Sheet

Section 1. Preparation \ Substance Identification

Name of Substance: 1-(2-cyanoethyl)-2-phenyl-4,5-di-(cyanoethoxymethyl) imidazole
Product Name Resicure™ 2PHICN
Synonyms 4,5-Bis-(cyanoethoxymethyl)-1-(2-cyanoethyl)-2-phenylimidazole;
 4,5-bis[(2-cyanoethoxy)methyl]-2-phenyl-1H-Imidazole-1-propanenitrile
Description Amine Curing Agent

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Section 2. Hazard Identification

OSHA Hazards:
 Target Organs: Eyes, skin
 Target Organ Effect; Harmful by Ingestion, Irritant

Pictogram(s): GHS07 Irritant



Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity (oral)	Category 4	H302
Acute toxicity (dermal)	Category 4	H312
Acute EyeCorrosion	Category 2	H318
Target Organ Toxicity (Single)	Category 3	H335

Hazard Statements:

H302	Harmful if swallowed
H315	Causes skin Irritation. .
H318	Causes eye damage.
H335	May cause respiratory irritation.

Precautionary statements:

P261	Avoid breathing dust / fumes/gas/mistArapore/spray.
P280	Wear protective gloves / eye / face protection.
P301 + 310	F SWALLOWED; immediately call a POISON CENTER or Physician.
P305 + 351 + 338	IF IN EYES; Rinse cautiously with copious amounts of tepid water for at least 15 minutes.

Hazard Overview: Avoid prolonged contact with this material. Irritating to the skin and eyes upon contact. Inhalation causes mild to moderate irritation to the lungs and respiratory tract. Inflammation to the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or occasionally, blistering.

Caution: IRRITANT; Product contains Acrylonitrile. Contact with eyes or skin may cause severe irritation. Permanent eye injury may occur.

Potential Health Effects

Eye: Causes painful eye irritation on contact.

Skin:	Cause skin irritation on contact
ingestion:	Toxic if swallowed in excessive amounts. Ingestion may result in severe gastric disturbances. Gastrointestinal damage may result as well.
Inhalation:	Causes severe irritation of the mucous membrane and upper respiratory tract. Acute exposure may result in pulmonary edema.

Section 3. Composition

Component	CAS NO.	%	PEL/TLV
1-(2-cyanoethyl)-2-phenyl-4,5-di-(cyanoethoxymethyl) imidazole	65652-67-7	> 98	Not Established
Acrylonitrile	107-13-1	<500ppm	2ppm - ACGIH 1988
TSCA Listed May 1994. SARA Title III Sect. 313: Not Listed. RTECS # N/A, EINICS 2658645			

Section 4. First Aid Measures

Inhalation:	Move to fresh air. Aid in breathing if necessary, and get immediate medical attention.
Eyes:	Immediately wash eyes with running water for 15 minutes. Get immediate medical attention.
Skin:	Wash affected areas with water while removing contaminated clothing. Get immediate medical attention. Launder contaminated clothing before reuse.
Ingestion:	If swallowed, DO NOT INDUCE VOMITING. Dilute with water or milk and get immediate medical attention. Never give fluids or induce vomiting if the victim is unconscious or having convulsions.

Notes to Physician: Treat symptomatically and supportively. Symptoms may mimic cyanide poisoning.

Section 5. Fire Fighting Measures

Flash Points: CLOSED CUP: 363°C

Hazardous decomposition products: Emits toxic fumes of CO, CO₂, acrylonitrile or formaldehyde.

Special Fire Fighting Procedures: Use water fog, alcohol foam or dry chemical extinguishing media. Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Water may be ineffective but should be used to keep exposed containers cool.

Explosion Hazards: None

Section 6. Accidental Release Measures

Personal Precautions: Use with local exhaust to control dusts. Wear an approved dust respirator, goggles, gloves, coveralls, apron boots and other protective clothing as necessary to prevent contact.

Environmental Precautions: Not applicable

Clean up procedure: Spills should be contained and placed in suitable containers for disposal.

This material is not regulated under RCRA or CERLA ("Superfund").

Section 7. Handling & Storage

Handling Precautions: **IRRITANT.** Avoid open handling to skin contact. Use local exhaust ventilation or perform work under hood/fume cupboard. If engineering controls are not available, a hierarchy of controls should be utilized, including PPE and administrative controls (See Section 8, Personal Protective Equipment).

Avoid inhalation and contact with skin eyes, and clothing. When handling, use appropriate personal protective equipment, protective clothing and gloves.

Respiratory protection is required if aerosols or vapors can be generated during handling. All tools, exposed equipment or work area surfaces must be decontaminated after use, to avoid spread of contamination.

Secondary containment is suggested during transportation of the compound. Minimize traffic through designated work areas.

Storage: Keep dry. Store material in properly labeled and sealed containers. Keep away from heat, sparks and flames.

Section 8. Exposure Controls \ Personal Protection

Occupational Exposure Limit N/A:

Biological Exposure Limit: N/A

Ventilation: Use local exhaust to control dusts.

Respiratory Protection: Approved organic vapor respirator.

Eye Protection: Chemical Goggles

Skin Protection: Gloves, coveralls, apron, boots as necessary to prevent skin contact.

Section 9. Physical & Chemical Properties

Boiling/ Melting Point:	BP 676.7°C at 760 mm/Hg
Appearance:	Light brown viscous liquid
Odor:	t-Butanol like
Solubility in Water:	Insoluble
pH:	7.0
Specific Gravity:	1.14 g/cm ³ @ 25°C
Vapor Pressure:	Nearly zero
Molecular Formula:	C ₂₀ H ₂₁ N ₅ O ₂
Molecular Weight	383.41 g/mol
Flash Point:	363°C closed cup

Section 10. Stability & Reactivity

Conditions to Avoid: Excessive heat, light, moisture, and open air.

Materials to Avoid: Keep away from strong oxidizing agents

Hazardous Combustion/Decomposition products: May emit toxic gases of combustion such as carbon dioxide, carbon monoxide and NO_x upon thermal decomposition.

Stabilization techniques: Stable under normal conditions

Section 11. Toxicological Information

Signs and symptoms of Overexposure: Overexposure may result in serious injury or death. Over exposure symptoms may include immediate eye and nasal irritation, headache, dizziness, reddening or blistering of the skin, itching of the skin, and nausea.

Potential Health Effects:

Routes of exposure

Skin Contact: Irritation upon contact with skin.

Skin Absorption: Reddening and possible blistering of the skin.

Eye Contact: Irritation upon contact. Severe eye damage may result.

Inhalation: May cause irritation and burns to the mucous membranes and respiratory tract if inhaled in large quantities. Symptoms may include coughing and shortness of breath.

Ingestion: May cause burning pain in the stomach, coughing, vomiting, diarrhea, mental confusion and weakness, and death.

Sensitization: None reported.

Respiratory: No allergic respiratory reaction noted.

Skin: No allergic skin reaction noted.

Target Organ : Eyes

Toxicity Data;

Acute toxicity:

LD50 Oral - mice — >1,800 mg/kg

LD50 Dermal - rabbit — N/A

Carcinogenicity

1ARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a Carcinogen or potential carcinogen by ACGIH

NIP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NIP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a Carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available.

Specific target organ toxicity: single exposure; (Globally Harmonized System)

Inhalation: Irritant if inhaled May causes serious respiratory damage from prolonged exposure.

Ingestion: Harmful if swallowed.

Specific target organ toxicity: repeated exposure; (Globally Harmonized System N/A)

Aspiration Hazard: No data available

 Section 12. Ecological Information

Aquatic Toxicity

Toxicity to fish: No data available

Persistence and degradability: No data available**Bioaccumulative potential:** No data available**Mobility in soil:** No data available**PBT and vPvB assessment:** No data available

 Section 13. Disposal Consideration

Product:

Recycle to process if possible. Observe all federal, state, and local environmental regulations. **Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.**

Contaminated packaging: Dispose of as unused product.**RCRA P-Series:** None listed.**RCRA U-Series:** None listed.

 Section 14. Transport Information

CAS Number:	65652-67-	Packaging Group:	None
UN Number:	None	UN Class:	None
Label:	None	Special Provisions:	None

 Section 15. Regulatory Information

Hazard Symbol: None

Safety Phrases: Wear proper protective gear.

 Section 16. Other Information

European/International Regulations:**EINECS Number (EEC):** 265464-5**European Labeling in Accordance with EC Directives****Hazard Symbols:****Risk Phrases: R36/37/38:** Irritating to eyes respiratory system, and skin.**Safety Phrases: S 37/39:** Wear suitable gloves and eye/face protection.

ACCI Specialty Materials provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate precautionary handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose, ACCI Specialty Materials makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, ACCI Specialty Materials will not be responsible for damages resulting from use of or reliance upon this information.

Recommended Uses and Restrictions: None

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