

HARDENER LMH-140

1. Identification of the substance / Preparation and Company

1.1 Commercial Product Name: HARDENER LMH-140

1.2 Company undertaking identification

Manufacturer: **LONGCHEM C & S International Corp.**

Identification of the company:

**No.46, Dou-Kung 2 Rd, Dou-Liu City,
Yun-Lin Hsien, 64069 Taiwan, R.O.C.
Telephone number: 886-5-557-4403**

2. Hazardous Identification

Hazard symbol: warning

Classification system

GHS ratings

Acute toxicity(Inhalation)	5
Acute toxicity(Dermal)	5

3. Composition/Information on Ingredient

3.1 Chemical characterization:

No	Chemical name	CAS Registry No.	Concentration [%]
1	DICY derivatives	Proprietary	30%±5%
	DICY= Dicyandiamide	461-58-5	
2	Acrylic co-polymer (butyl 2-methylprop-2-enoate & prop-2-enoic acid)	25930-98-7	50%±5%
3	Imidazole derivatives	Proprietary	20%±5%
	Imidazole = 2-Undecyl-1H-imidazole	16731-68-3	

3.2 DICY works as hardener and imidazole is used extensively as a corrosion inhibitor on certain transition metals. The detail structures of both above are confidential information.

4. First Aid Measures

4.1 Inhalation: Move to fresh air,

- 4.2 Eye contact: Rinse thoroughly with plenty of water, also under the eyelids.
- 4.3 Skin contact: Wash off with soap and plenty of water. Clean with detergents. Avoid solvents.
- 4.4 Ingestion: Immediately give plenty of water. If a person vomits when lying on his back, place him in the recovery position. Oxygen or artificial respiration if needed.

5. Fire Fighting Measures

Fire-fighting media: Water spray, foam, CO₂, dry powder.

6. Accidental Release Measures

- 6.1 Personal precautions: Prevent the formation of dust in operation.
- 6.2 Environmental precautions: Don't allow material to contaminate ground water system. Prevent product from entering drains.
- 6.3 Methods for cleaning up: Take up mechanically and collect in suitable container for disposal.

7. Handling and Storage

- 7.1 Handling: Prevent the formation of dust. Handle and open container with care.
- 7.2 Storage: Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Keep at temperature between 20 °C and 40 °C, 20 °C preferably.

8. Exposure Controls / Personal Protection

- 8.1 Technical measures: In case of dust being formed, provide for adequate extraction.
- 8.2 Ingredients with limiting values to be controlled:
Industrial hygiene: Do not inhale dusts. Do not wear contaminated clothes. Wear protective clothes, suitable gauze mask, protective sleeves and gloves. Wear protective eyeshade/safety glasses.

9. Physical / Chemical Properties

- 9.1 Appearance : White powder
- 9.2 Sense of Smell Valve : —
- 9.3 pH value (3g / liter water) : —
- 9.4 Melting Point : 120~130 °C
- 9.5 Boiling point : —
- 9.6 Flammability(Solid , Gas) : —
- 9.7 Decomposition Temperature : —
- 9.8 Flash point : —
- 9.9 Autoignition Temperature : —
- 9.10 Explosion Limits : —
- 9.11 Vapour Pressure : —
- 9.12 Vapour Density : —
- 9.13 Density : —
- 9.14 Solubility in water : insoluble
- 9.15 Log Kow : —
- 9.16 Volatile : < 1.5%

10.Stability and Reactivity

- 10.1 Stability: Stable
- 10.2 Material to avoid: Strong oxidizer, acid and alkalis
- 10.3 Hazardous decomposition products: CO, CO₂, sulfur oxides, acrylic acid and aldehyde compound at limit combusting.
- 10.4 Conditions to avoid: Take necessary action to avoid static electricity.

11.Toxicological Information

- 11.1 Oral LD50 (rat) : ≥ 5000 mg/kg
- 11.2 Inhalation LC50 (rat): >6 mg/L (4hr)
- 11.3 Dermal toxicity LD50 (rabbit): ≥ 5000 mg/kg
- 11.4 Skin irritation: Not irritate.
- 11.5 Eye irritate: Not irritate.
- 11.6 Mutagenic effects: Negative in the Ames Salmonella assay.

11.7 Human experience: Product dust may cause temporary mechanical eye irritation.

12. Ecological Information

12.1 Avoid subsoil penetration. Prevent product from entering drains. Do not contaminate surface water.

12.2 Biodegradability: Not readily biodegradable.

12.3 Toxicity to fish LC50 (Oncorhynchus mykiss): 7000 mg/L (96hr)

12.4 Toxicity to fish LC50 (Daphnia magna): 3177 mg/L (48hr)

12.5 Toxicity to fish LC50 (Pseudomonas putida): 131mg/L

13. Disposal Considerations

Remainder : Incinerate little by little or dispose like industrial wastes.
Container : Incinerate or dispose like industrial wastes.

14. Transport Information

Proper Shipping Name: None

14.1 ICAO/IATA (air transport): Not regulated and restricted.

Prevent from falling, dropping, damage and dropping into water (may cause water pollution).

14.2 IMDG (maritime transport): Not regulated and restricted.

14.3 ADR/RID (land transport): Not regulated and restricted.

15. Regulatory Information

15.1 TSCA inventory status: chemical component listed on TSCA inventory

H-CODES	H302	Harmful if swallowed
	H413	May cause long lasting harmful effects to aquatic life
P-CODES	P233	Keep container tightly closed.
	P270	Do not eat, drink or smoke when using this product.

16. Others

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the

properties of the product(s) in terms of the legal warranty regulations.