



CLEARLINK™ 1000 DIAMINE

Clearlink 1000 is a new aliphatic diamine developed by UOP as a chain extender for use with aliphatic iso-cyanates to produce a range of UV light-stable polymers. It is a safe, low viscosity liquid with reactivity substantially lower than other commercially available aliphatic diamines.

The additional urea groups formed by the reaction of Clearlink 1000 with the aliphatic isocyanate typically increase all strength properties and heat resistance of the final polymer. Samples of polyurethanes and polyureas cured with Clearlink 1000 diamine are light-stable in both laboratory and outdoor exposure trials.

TYPICAL PROPERTIES

Appearance	Clear, Colourless Liquid
Specific Gravity at 68°F (20°C)	0.90
Density, lb./US gallon	7.4
Pour Point, IF (°C)	-44 (-42)
Flash Point, PMCC, IF (°C)	285 (141)
Viscosity at 60°F (16°C), cps	110
Water content, wt.ppm	<600
Toxicity, LD50(mg/kg (Acute oral, rat)	482
Ames Test	Negative
Molecular Weight	322
Equivalent Weight	161
Apparent Hydroxyl Number	348

BENEFITS

- Liquid aliphatic diamine
- Slow reactivity compared with other aliphatic diamines
- Low toxicity -- Ames negative
- Compatible with a wide range of polyols, co-curing agents and all other polyurethane chemicals
- Low moisture sensitivity

APPLICATIONS

Clearlink 1000 is a new liquid aliphatic diamine chain extender to be commercialized by UOP. With a reactivity substantially lower than other commercially available aliphatic diamines, Clearlink 1000 diamine will allow the processing of aliphatic isocyanates to produce tough, light-stable polyurethane and polyurea coatings by conventional spray techniques.

Order and Shipping Information

ORDER PLACEMENT

Please contact your local Unilink distributor or agent or one of the UOP offices shown in this bulletin for further information concerning the availability of this novel diamine.

Safe Handling Recommendations

STORAGE AND HANDLING

Store in tightly closed, properly labeled containers in a cool, well-ventilated area away from all ignition sources. Avoid contact with eyes, prolonged or repeated contact with skin and the inhalation of vapors. Do not take internally. Never use welding or cutting equipment on or near full or empty containers as product vapors can ignite explosively.

For further details regarding safety and handling of this product, please consult the current Material Safety Data Sheet.

HAZARD CLASSIFICATION

DOT – “Corrosive Liquid, Toxic, N.O.S., 8, UN 2922, II, (6.1), (contains Aliphatic diamines).”

IATA – “Corrosive Liquid, Toxic, N.O.S., *, UN 2922, II, (6.1), (contains Aliphatic diamines).”

IMO – “Corrosive Liquid, Toxic, N.O.S., 8, UN 2922, II, (6.1), (contains Aliphatic diamines), EMS NO.8-15, MFAG Table NO. 760.”

TECHNICAL ASSISTANCE

For technical assistance or pre-production samples of Clearlink 1000 diamine and other UOP polymer additives, please contact UOP Molecular Sieve Department in Des Plaines, Illinois or your local UOP office or Unilink Distributor.

EMERGENCY ASSISTANCE

in the event of a product related emergency, please telephone one of the UOP offices below or call the CHEMTREC or BIG 24-hour emergency response service.

UOP, Des Plaines Ill., USA (847) 391-2123
UOP BV, Antwerp, (32) 3 540 9971
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