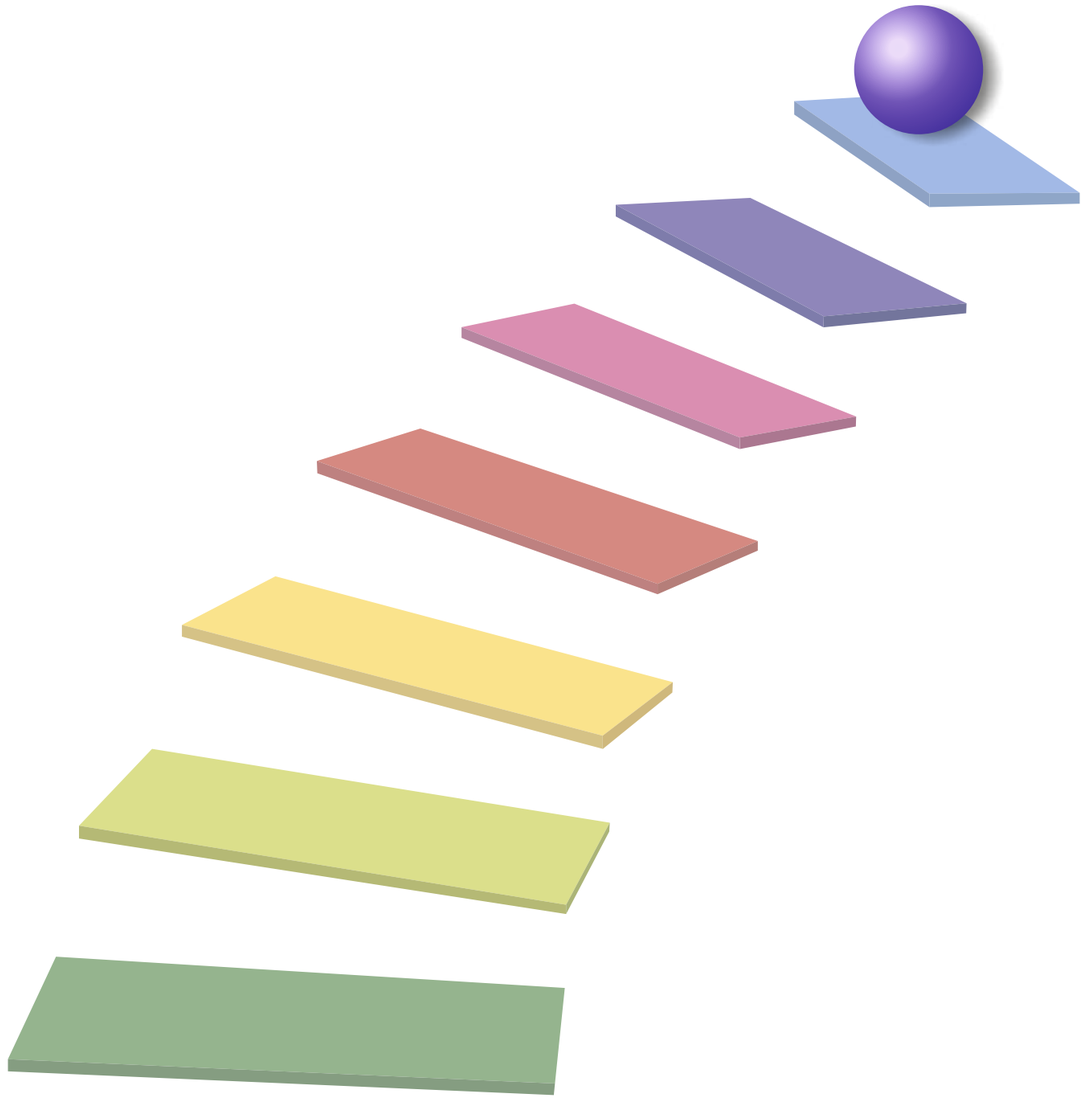
Diamines
Quality driven



Diamines
Quality driven

Diamines and Chemicals Limited

Regd. Office & Works:
Plot No. 13 P.C.C. Area
P.O. Petrochemicals
Dist. Vadodara 391 346
Gujarat INDIA

T: +91 265 3534200
+91 265 3534261
E: marketing@dacl.co.in
W: dacl.co.in

CIN No:L24110GJ1976PLC002905

Making Presence Felt...

To be a leading manufacturer in Ethyleneamines, driving through sustainable solutions that empower Industries and enhance the quality of life for generations.

Diamines was the first producer and is a pioneer in manufacturing of Ethyleneamines in India.

ETHYLENEAMINES : A series of homologous poly-amines act as the Building Blocks in numerous applications across a wide spectrum of industries because of their excellent synergy in reactivity, basicity and surface activity. These are mainly used as intermediates in the production of functional products.

Diamines has pioneered the Ethyleneamines development in india and has presence in the following segments.

- Agrochemicals
- Pharmaceuticals
- Paints & Adhesives
- Chelates & Chelating Agents
- Textiles Auxiliaries
- Polyamide Resins
- Oil-field Chemicals
- Bulk Drugs

and many more.

Meeting Approvals...

- Diamines has ISO 9001 : 2015, 14001 : 2015 & 45001 : 2018 accredition from BVC
- Well Equipped Analytical and R & D Laboratory Center recognized by The D S I R, Government of India.
- EU REACH Certified

Driven by Innovation

Innovative & differentiating technology with a greener perspective & opening up plethora of life saving & import substitute chemicals.

Diamines has invested in multiple product development center.

- The center harbors a culture that fosters innovation and helps shape inventions into innovative commercial products.

Some of the examples of chemistries and products are as follows

- Vapour phase reactions.
- Flow Hydrogenation (Patent applied)
- Lithium based derivatives.
- Biosolvent.

and many more.

Monitoring Process & Quality Assurance...

- At Diamines, **Quality** starts with a capital **Q.** Quality is a sine qua non for ensuring the Company's continued presence in the market.
- Equipped with the latest testing instruments, the Q A Laboratory tests to stringent standards, incoming raw materials, in-process goods and the finished products.
- Qualified and experienced Engineers keep a vigil 24X7 on the continuous process.
- Armed with the latest automation system they dove-tail their process with the Plant Safety Program to ensure maximum output at optimum costs and with zero down time.

Meeting Customer Requirements Through Customer Focus...

- Diamines exists for and because of its Customers.
- Diamines is perceived to be a reliable and consistent indigenous source of supply of Ethyleneamines.
- Meets competition successfully.
- Ensures total satisfaction for Customers.
- Armed with a long list of prestigious and satisfied Customers both in india and over-seas, for years on, Diamines has constantly aimed at ensuring CUSTOMER PEACE for all those who order out our products in various packings up to ISO Tanks.

We Take Care...

- As a responsible Corporate, Diamines has resolved to be protecting the environment and help generating Power by harnessing Wind Energy.
- PEOPLE, are our most valuable assets.
- We care for them by way of welfare activities and providing primary medical attention and ensuring a safe & healthy work environment conducive to maximum contribution.
- Diamines takes cognizance of their presence in order to make the Company's presence felt in the markets.

Sustainable Greener Initiatives

Reduction in Carbon Foot Print

- Our process convenes all the necessary steps to curtail carbon foot print.

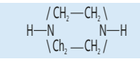
Incorporate Circular Economy

- Aims to decouple economic growth from consumption of finite resources & environmental degradation, promoting sustainability & resilience.

What the Future beholds?

- Diamines is in a growth mode to increase market share rapidly across new frontiers and beyond the seven seas.
- In the pipeline are a few value-added products for diverse applications.
- Dedicated R & D pilots continuous improvement in the Quality of the products.
- The future beckons Diamines for Collaboration and Consolidation. Indeed a bright prospect ahead.

Ethyleneamines Product Range and its applications...

Product	Piperazine Anhydrous PIP-A	Ethylene Diamine EDA	Diethylene Triamine DETA	Polyamine Polyamine-Mix PA-M	Monoethanol Amine MEA	Triethylene Diamine TEDA
Synonyms	Hexahydropyrazine,	1,2-Ethanediamine;	1,2-Ethylenediamine;	Mixture of Higher	2-Aminoethanol;	1,4-Diazabicyclo [2.2.2] octane;
	Diethylenediamine,	1-2-Diaminoethane	N-(2-Aminoethyl);	Amines	2-Hydroxyethylamine	DABCO Crystals
	1,4 Diazacyclohexane		Bis(2-Aminoethyl) Amine			
Molecular formula	C4H10N2	C2H8N2	C4H13N3	H2NCH2Ch2(NHCH2CH2)xNH2	C2H7NO	C6H12N2
CAS No.	[110-85-0]	[107-15-3]	[111-40-0]	[29320-38-5]	[141-43-5]	[280-57-9]
Chemical Structure		H2N-CH2-CH2-NH2	H2N-(CH2)2-NH-(CH2)-2NH2	H2NCH2Ch2(NHCH2CH2)xNH2	H2N-CH2-Ch2-OH	
Molecular weight	86.1	60.1	103.2		61.08	112.17
Specifications						
Appearance	White flakes	Clear colorless liquid	Clear colorless liquid	Dark brown clear liquid,	Clear colorless hygroscopic liquid	White to light Yellow solid,
				free of suspended matter		Hygroscopic
Assay by GC %	99.7 min.	99.7 % min	98.5 min	8%	99.00 min	99.7 min
Water (by KF) Wt %	0.5 max.	1.0 % max	1.0 % max	max	1.0 max	
Color (APHA)	50 max. (20% solution)	30 max	50 max		50 max	White to off-white
Viscosity at 40°C;cst				70-120		
Packing and Storage*						
	50 kg Fiber Drums	180 kg HMHDPE Drums and	195 kg HMHDPE Drums and	200 kg MS Drums	210 kg HMHDPE Drums	25 kg Fiber Drums with special
	with double polyethylene liners	in SS Road tankers	in SS Road tankers	Also supplied in SS road tankers	Also supplied in SS road tankers	liners inside
	inside	For exports in ISO Tanks	For exports in ISO Tanks			
Transport Classification						
IMDG CLASS	8	8	8	8	8	4.1
U.N. No	2579	1604	2079	2735	2491	1325
Packing Group	III	II	II	III	III	II
Hazard Label	Corrosive	Corrosive	Corrosive	Corrosive	Corrosive	Corrosive
Applications						
	Used as raw material for the	Used as raw material for	Used as raw material for	Asphalt Additives, Corrosion	MEA is mainly used for scrubbing	Used extensively as a catalyst to
	manufacture of quinolone drugs	Fungicide, Chelating Agents,	Asphalt Additives, Chelating	Inhibitors, Epoxy Curing Agents,	acidic gases [H2S, Co2], detergent	promote both gelling and blowing
	like Ciprofloxacin and Norfloxacin	Corrosion Inhibitor, Elastomeric	Agents, Corrosion Inhibitors,	Hydrocarbon Purification, Lube	neutralizing and is also used as	reactions in the production of
	Also used in manufacture of other	Fibers, Textile Auxiliaries, Lube	Drainage Aids, Fabric Softners,	Oil and fuel Additives, Mineral	surface active agent, emulsifier.	flexible, semi-rigid and rigid
	drugs like Anti-helmentics, Sedatives,	Oil and Fuel Additives, Water	Lube Oil & Fuel Additives,	Processing Aids, and Petroleum	As a solvent in pesticides	polyurethane foams, as well as
	Antihistamines, Antifilarials,	Treatment Chemicals, Drugs	Mineral Processing Aids,	Production Chemical		elastomers and adhesives. It is also
	Tranquilizers and Analgesics.	Intermediates, Plastic Additives,	Polyamide Resins, Surfactants,			used in polyurethane coating
	Used for speciality chemicals and	Polyamide Resins, Rubber	Textile Additive, and Wet			applications. Also used as a raw
	polymeric products like corrosion	Processing Additives, Paper	Strength Resin			material for manufacture of
	inhibitors, photographic chemicals,	Chemicals, Mining Chemicals.				Chlorpyriphos and also in
	wetting agents, polyamides,					organic synthesis as acid absorber.
	rubber auxiliaries and hardener for					
	epoxy resins. **Gas sweetening as well.**					

"* Corrodes copper and its alloys. Reacts violently with acids and chlorinated Hydrocarbons. Absorbs carbon dioxide from air. Discolors in contact with air."

Other Products and applications...

Product Name	CAS No.	Applications
1-Methylpiperazine (Under Development)	109-01-3	Olanzapine, Levocetrizine, ofloxacin, Rifampicin, Clozapine, Sildenafil, Etc.
Piperazine Citrate	144-29-6	Pharma intermediate
Piperazine Adipate	142-88-1	Pharma intermediate
Piperazine Hexahydrate	142-63-2	Pharma intermediate
Piperazine Phosphate	14538-56-8	Pharma intermediate
Piperazing Dihydrochloride	142-64-3	Pharma intermediate
33% Triethylenediamine in Dipropylene glycol [DiaTed 33V]	280-57-9	As a catalyst Polyurethane, Plastic, Elastomers, Adhesives, Foams
33% Triethylenediamine in Monoethylene glycol [DiaTed EG]	280-57-9	As a catalyst Polyurethane, Plastic, Elastomers, Adhesives, Foams
33% Triethylenediamine in 1,4-Butanediol [DiaTed BDO]	280-57-9	As a catalyst Polyurethane, Plastic, Elastomers, Adhesives, Foams
Triethylenetetramine [TETA]	112-24-3	As a curing agent for epoxy resins and various other chemical processes

For other products, please contact at **marketing@dacl.co.in**