



Cultivating relationships. Driving innovation.

Eastman agriculture solutions

Specialty chemicals for the agriculture market



EASTMAN

Reactive intermediates | Neutralizing agents | Solvents | Catalysts

agriculture solutions



Good **chemistry** is about the **bonds** you keep.

A growing world population, environmental and regulatory concerns, and unforgiving climates are challenging the agricultural industry to develop innovative and targeted solutions to ensure the success of crops, livestock, and the land itself. Solving these problems requires cooperation. As a formulation component manufacturer and supplier, Eastman is uniquely positioned to leverage our company-wide technology platforms, application knowledge, and diverse product portfolio to innovate alongside you.

Our intermediates and functional products are essential in improving yield and safeguarding crops against weeds, diseases, and pests.

When you bond with the right chemical supplier, you get quality materials with reliable delivery, adding value to your products. You can also reach out to us with problems you face. With our application knowledge, process capabilities, and breadth of chemistries, we work with customers to find solutions to a variety of problems. They can include but aren't limited to:

- Rainfastness
- Low volatility
- Drift control

Eastman has a long history of providing critical building blocks and advanced intermediates to major sectors of the agrochemical and crop protection industries. We offer a diverse portfolio of products, including:

- Advanced building blocks for active ingredients
- Specialty amines as salting/neutralizing agents
- A broad selection of solvents and catalysts, the result of constant innovation toward more environmentally friendly solutions

Eastman creates business value through environmental stewardship, social responsibility, and economic growth—now and for future generations. We view sustainability as a continuous exploration of possibilities to help bring new products to market that improve our lives, communities, and environment.

Why Eastman?

- Unique breadth of chemistries and process capabilities
- Adaptive innovation
- Reliable partner
- Committed to the industry



Eastman agriculture solutions

Neutralizing agents—Eastman is one of the world's largest and most respected suppliers of neutralizing/salting agents in the pesticide market.

Intermediates—We provide one of the industry's largest portfolios of intermediates—the synthetic building blocks to produce active ingredients and adjuvants, including organic acids, alcohols, amines, nitriles, aldehydes, anhydrides, and ketones.

Catalysts—Small amounts of catalysts enable faster reaction times and are frequently used when synthesizing active ingredients. Eastman's amine-based catalysts remain widely respected in the agricultural chemical development field.

Solvents—Beyond the solvents Eastman already offers, we are partnering with customers to develop new solvent alternatives that improve hazard profiles to meet performance and HSE requirements.

Reactive intermediates—amines*					
Product	CAS #	Molecular weight, g/mol	Available grades		
			Anhydrous liquefied gas	Anhydrous liquid	Aqueous solutions
Monomethylamine	74-89-5	31.1	✓		✓
Monoethylamine	75-04-7	45.1	✓		✓
Mono- <i>n</i> -propylamine	107-10-8	59.1		✓	
Monoisopropylamine	75-31-0	59.1	✓		✓
Mono- <i>n</i> -butylamine	109-73-9	73.1		✓	
Dimethylamine	124-40-3	45.1	✓		✓
Diethylamine	109-89-7	73.1		✓	
Di- <i>n</i> -propylamine	142-84-7	101.2		✓	
Diisopropylamine	108-18-9	101.2		✓	
Di- <i>n</i> -butylamine	111-92-2	129.2		✓	
Trimethylamine	75-50-3	59.1	✓		✓
Triethylamine	121-44-8	101.2		✓	
Tri- <i>n</i> -propylamine	102-69-2	143.3		✓	
Tri- <i>n</i> -butylamine	102-82-9	185.3		✓	
Dimethylaminopropylamine (DMAPA)	109-55-7	102.2		✓	
Dimethyldodecylamine (dimethylaurylamine, DIMLA)	Differs by grade; consult SDS	213.4–241.5		✓	
Benzyl dimethylamine	103-83-3	135.2		✓	
Dimethylethanolamine (DMEA, Amietol M21)	108-01-0	89.1		✓	

*Contact your Eastman representative to learn what product grades are available to meet your needs. Before using any Eastman product, consult the Safety Data Sheet for safety precautions and details on the test methods used in the table.



Other reactive intermediates and process solvents*			
Product family	Product	CAS #	Molecular weight, g/mol
Organic acids and anhydrides	Propionic acid	79-09-4	74.1
	Butyric acid	107-92-6	88.1
	Isobutyric acid	79-31-2	88.1
	Propionic anhydride	123-62-6	130.1
	Butyric anhydride	106-31-0	158.2
	Isobutyric anhydride	97-72-3	158.2
	2-Ethylhexanoic acid	149-57-5	144.2
	Benzoic acid	65-85-0	122.1
Alcohols, aldehydes, and ketones	2-Ethylhexanol	104-76-7	130.2
	4-Methyl-2-pentanol (methyl isobutyl carbinol, MIBC)	108-11-2	102.1
	2-Heptanol	543-49-7	116.2
	Acetaldehyde	75-07-0	44.0
	Methyl propyl ketone (MPK)	107-87-9	86.1
	Methyl isopropyl ketone (MIPK)	563-80-4	86.1
Amides and nitriles	Dimethylformamide (DMF)	68-12-2	73.1
	Dimethylacetamide (DMAc)	127-19-5	87.1
	<i>n</i> -Butyronitrile	109-74-0	69.1
	Isobutyronitrile	78-82-0	69.1

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Solvents*					
Product family	Product	Chemical name(s)	CAS #	Boiling point, 760 mm, °C	Flash point, °C
Glycol ethers and alcohols	PM solvent	1-Methoxy-2-propanol, propylene glycol monomethyl ether	107-98-2	121	33
	EP solvent	2-Propoxyethanol, ethylene glycol monopropyl ether	2807-30-9	149.5–153	49
	EB solvent	2-Butoxyethanol, ethylene glycol monobutyl ether	111-76-2	169–172	62
	DE solvent	2-(Ethoxyethoxy)ethanol, diethylene glycol monoethyl ether	111-90-0	198–204	91
	DB solvent	2-(Butoxyethoxy)ethanol, diethylene glycol monobutyl ether	112-34-5	230–235	111
	Eastman Texanol™ ester alcohol	2, 2, 4-Trimethyl-1,3-pentanediol monoisobutyrate	25265-77-4	255–261.5	122
Esters	Isobutyl isobutyrate (IBIB)	—	97-85-8	144–151	40
	EEP solvent	Ethyl 3-ethoxypropionate	Consult SDS	165–172	58
	2-Ethylhexyl acetate	—	103-09-3	199–205	71
	EB acetate	2-Butoxyethyl acetate	112-07-2	186–194	71
	Eastman triacetin	Glyceryl triacetate	102-76-1	258	151
	Eastman TXIB™ formulation additive	2, 2, 4-Trimethyl-1,3-pentanediol diisobutyrate	6846-50-0	281	136
	Eastman Zendex™ DB-120 agricultural solvent	Dipropylene glycol dibenzoate	Consult SDS	347	182
	Eastman Zendex™ DB-300 agricultural solvent	Dipropylene glycol dibenzoate	Consult SDS	283	185
	Eastman DOA	Bis(2-ethylhexyl) adipate	103-23-1	417	196
	Eastman SAIB	Sucrose acetate isobutyrate	Depends on grade; consult SDS		
Ketones	MIBK	Methyl isobutyl ketone, 4-methyl-2-pentanone	108-10-1	114–117	16
	MIAK	Methyl isoamyl ketone, 5-methyl-2-hexanone	110-12-3	141–148	36
	MAK	Methyl <i>n</i> -amyl ketone, 2-heptanone	110-43-0	147–153.5	39
	DIBK	Diisobutyl ketone	Consult SDS	163–176	49

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Other formulation components*			
Product family	Product (chemical name)	CAS #	Description
Antioxidants and preservatives	Hydroquinone (HQ)	123-31-9	Eastman Tenox and HQ antioxidants, available in food, kosher, and pharma grades, are useful in stabilizing unsaturated oils, fats, and other materials. Tenox products are available in liquid blends in corn oil or glycol carriers. HQ and Tenox TBHQ can also be used as reactive intermediates.
	Eastman Tenox™ TBHQ (tert-butyl hydroquinone)	1948-33-0	
	Eastman Tenox BHA (butylated hydroxyanisole)	25013-16-5	
	Eastman Tenox BHT (butylated hydroxytoluene)	128-37-0	
	Probenz™ SG and SP sodium benzoate	532-32-1	Useful as a preservative and a reactive intermediate, sodium benzoate is available in granular, powder, and extra-dry powder forms, which are all food grade and kosher certified.
Other	Choline chloride (2-hydroxyethyl trimethylammonium chloride)	67-48-1	Several grades with different concentrations are available, and they can be used as reactive intermediates and formulation additives.
	Abalyn™ D-E rosin resins (methyl ester of rosin)	68186-14-1	These pine-based rosin derivatives have a variety of uses, including stickers and crystallization inhibitors.
	Pamolyn™ fatty acids (oleic, linoleic, conjugated linoleic acids)	Varies	Several grades of pine-based Pamolyn oleic, linoleic, and conjugated linoleic acids, which are useful as intermediates and formulation components, are available.

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Global reliability





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EASTMAN

The results of insight™

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