
GLOSSARY OF TECHNICAL TERMS

This glossary contains explanations of certain technical terms used in this Prospectus. Such terminology and meanings may not correspond to standard industry meanings or usages of those terms.

“acetic acid”	CH_3COOH , a colorless, corrosive organic acid, used extensively as an intermediate in the production of other chemicals. Also known as ethanoic acid or vinegar;
“ammonia”	NH_3 , a colorless, combustible alkaline gas. Ammonia is a compound of nitrogen and hydrogen, it is used extensively for the manufacture of fertilizers and a wide variety of nitrogen-containing organic and inorganic chemicals;
“ammonium”	the unipositive cation NH_4^+ which forms a group of, generally, soluble salts similar to the alkali metal salts (formed NH_3 and acid);
“ammonium carbamate”	a salt of carbamic acid that is used as a nitrogen fertilizer;
“AN”	ammonium nitrate (AN), a nitrogen fertilizer produced by reacting nitric acid, an intermediate chemical feedstock produced from ammonia, with ammonia (contains around 34% nitrogen);
“apparent consumption”	consumption of a particular product that is derived from production of the product plus product imports less product exports;
“BB fertilizers”	bulk blended fertilizers, according to the PRC national standard being a chemical compound containing at least two primary plant nutrients among N, P and K;
“Bcf”	billion cubic feet;
“biuret”	$\text{C}_2\text{O}_2\text{N}_3\text{H}_5$, a content of urea that is soluble in water and alcohol, generally used as an analytical reagent, especially for proteins;
“CAGR”	compound annual growth rate;
“compound fertilizers”	a type of fertilizer composed of at least two of the three primary ingredients of nitrogen (N), phosphorus (P) and potassium (K) mixed intentionally or chemically obtained;
“dimethyl ether”	CH_3OCH_3 , also known as methoxymethane, methyl ether, wood ether and DME. A colorless gaseous ether that is water soluble and a clean-burning alternative to liquefied petroleum gas, liquified natural gas, diesel and gasoline. It can be made from natural gas, coal or biomass;

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“dwt”	dead weight tonnes, the total weight including ballast, cargo, crew and stores that can be loaded into a vessel;
“fluid-bed”	a bed of solid particles with a stream of air or gas passing upward through the particles at a rate great enough to set them in motion, and as air travels through the particle bed, it imparts unique properties to the bed. This technology is used for applications such as granulation, rapid drying, agglomeration, air suspension coating, rotary pelletization, and powder and solution layering;
“FOB”	Free on board. An FOB contract price does not include insurance and freight from the point of shipping;
“formaldehyde”	CH ₂ O, a colorless, poisonous gas, made by the oxidation of methanol;
“granules”	small grains or pellets, an aggregate similar in size to a crumb but more dense;
“HDPE”	high density polyethylene thermoplastic made from petroleum. HDPE has strong intermolecular force and tensile strength to withstand high temperatures and a resistance to most solvents;
“hydrocarbons”	organic compounds containing only hydrogen and carbon. Crude oil, natural gas, and natural gas condensate are all mixtures of various hydrocarbons, among which methane is the simplest;
“hydrolyzation”	subject to a chemical process known as hydrolysis in which a molecule is split into two parts by the addition of a molecule of water, usually resulting in the formation of one or more new compounds;
“KJ”	kilojoules, equivalent to 1,000 joules (reference to International System), a measurement for energy;
“Kt”	thousand metric tonnes;
“Kwh”	a basic unit of electric energy equal to an average of one kilowatt of power applied over one hour. A unit of energy equivalent to one thousand watthours;
“m ² ”	square meter;
“m ³ ”	cubic meter; for the usage of measurement of natural gas, means cubic meter under 1 atmospheric pressure and 20 degrees Celsius;

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“Metric tonne” or “tonne”	1,000 kilograms;
“million tonne nutrient”	million metric tonnes of nutrient, quantity of consumption and production of fertilizers are expressed in weight containing 100% of effective nutrient;
“MTBE”	$C_5H_{12}O$, methyl tertiary butyl ether, a fuel derived from methanol and an octane booster and oxygenate used for gasoline blending. It is a gasoline additive used to reduce pollution;
“melamine”	$C_3H_6N_6$, a strong organic base produced from urea, used principally as a starting material for the manufacture of synthetic resins;
“melamine formaldehyde resin”	thermosetting resins made by reacting melamine with formaldehyde;
“metabolic acidosis”	a condition in which the pH of the blood is too acidic because of the production of certain types of acids and which causes neurological symptoms;
“methanol”	CH_3OH , or methyl alcohol, or wood alcohol, a colorless, flammable liquid, produced synthetically by the direct combination of hydrogen and carbon monoxide gases, heated under pressure in the presence of a catalyst;
“MMBTU”	one million BTUs, used as a standard unit of measurement for natural gas and provides a convenient basis for comparing the energy content of various grades of natural gas and other fuels;
“Mmcf”	million cubic feet;
“MWh”	megawatt per hour, a measure of energy production or consumption equal to one million watts produced or consumed for one hour;
“N fertilizer” or “nitrogenous fertilizer”	a fertilizer containing only nitrogen (N) as the main nutrient, common examples include ammonia, urea, ammonium nitrate and ammonium sulphate;
“nitrogen (N)”	one of the primary plant nutrients essential for plant growth;
“natural gas”	colorless, highly flammable gaseous hydrocarbon consisting primarily of methane and ethane. It is a type of petroleum that commonly occurs in association with crude oil. Natural gas is often found dissolved in oil at the high pressures existing in a reservoir, and it also can be present as a gas cap above the oil;

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“P fertilizer” or “phosphate-based fertilizer”	a fertilizer containing only phosphorus (P) as the main nutrient, common examples include SSP and TSP;
“phosphorus”	one of the primary plant nutrients essential for plant growth. It occurs in natural geological deposits, known as phosphorus rocks;
“polymer”	a substance made of many repeating chemical units or molecules. The term polymer is often used in place of plastic, rubber, or elastomer;
“polymerization”	a chemical reaction in which the molecules of a simple substance (monomer) combine to form larger molecules that contain repeating structural units of the original molecules. It is the process by which polymers are formed;
“polyethylene”	a thermoplastic material produced by the polymerization of ethylene molecules. It is a light, strong, water resistant and flexible product, even at low temperatures;
“polyoxymethylene (POM)”	$-(\text{O}-\text{CH}_2-)_n-$, also known as acetal resin, polytrioxane, polyformaldehyde, or paraformaldehyde, an engineering plastic used to make gears, bushings and other mechanical parts. It is a thermoplastic with good physical and processing properties;
“polypropylene” or “PP”	a tough, lightweight, rigid plastic made by the polymerization of propylene gas. It is similar to polyethylene but is lighter and offers even better heat resistance; also known for its resistance to chemicals;
“potassium (K)”	one of the primary plant nutrients essential for plant growth. It is excavated mainly in salt as muriate of potash;
“prill” or “traditional prill”	a solid formulation of a particle size larger than that of dust in which there is normally an inert core surrounded by active ingredient;
“primary plant nutrients”	Nitrogen (N), phosphorus (P), and potassium (K);
“secondary nutrients”	Calcium (Ca), magnesium (Mg), sodium (Na) and sulphur (S);
“SSP”	single superphosphate;
“straight fertilizer”	a fertilizer containing only one of the three primary plant nutrients;

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“synthesis”	a process by which organic compounds break down and convert the degradation products into new cell growth; an energy using process;
“thermoplastic resin”	a classification of plastic resin capable of being repeatedly softened when heated and hardened when cooled without any important changes in properties;
“thermoset resin”	a classification of plastic resin that cures by chemical reaction when heated and, once cured, is in its final state and cannot be resoftened even when reheated;
“TSP”	triple superphosphate;
“urea”	$\text{H}_2\text{N}-\text{CO}-\text{NH}_2$, nitrogen fertilizer formed by reacting ammonia with carbon dioxide at high pressure (containing 46% nitrogen);
“urea-formaldehyde resin”	$\text{C}_3\text{H}_8\text{N}_2\text{O}_3$, a transparent thermosetting resin made from urea and formaldehyde heated in the presence of an ammonia base. The urea and formaldehyde undergo a condensation reaction in which they combine to form a water-soluble polymer; and
“utilization rate”	a percentage calculated by dividing the actual annual production volume by the designed annual production volume.