
GLOSSARY OF TECHNICAL TERMS

“ μm ”	micrometer — one millionth of a meter
“ADC”	azodicarbonamide or azobisformamide, a synthetic chemical mainly used in the production of foamed plastics as an additive
“ $^{\circ}\text{C}$ ”	degree celsius
“ $\text{C}_2\text{H}_6\text{N}_4\text{O}_2$ ”	biurea, a compound used as an intermediate chemical to produce ADC foaming agent
“ CaC_2 ”	calcium carbide
“ CaCO_3 ”	calcium carbonate
“ $\text{Ca}(\text{ClO})_2$ ”	calcium hypochlorite
“ $\text{Ca}(\text{OH})_2$ ”	calcium hydroxide / slake lime
“centrifugal separation”	a process that involves the use of centrifugal force to separate mixtures. Centrifugal force relates to the effects of inertia that arise in connection with rotation and which are experienced as an outward force away from the center of rotation
“ $\text{CH}_4\text{N}_2\text{O}$ ”	urea, an organic, nitrogen-containing compound
“chlor-alkali process”	the electrolysis of aqueous solution of salt to produce caustic soda, chlorine gas and hydrogen gas. A membrane electrolysis cell is used for this process
“ Cl_2 ”	chlorine, a powerful oxidant with a wide range of applications, including water purification and the production of a variety of industrial and consumer products
“ ClO_2 ”	chlorine dioxide
“COD”	chemical oxygen demand — a test that measures the oxygen demand of organic compounds in water, a measure of water quality
“double decomposition reaction”	a chemical reaction between two compounds in which parts of each are interchanged to form two new compounds
“eAQ”	2-ethylanthraquinone ($\text{C}_{16}\text{H}_{12}\text{O}_2$)
“eAQH ₂ ”	2-ethylanthrahydroquinone ($\text{C}_{16}\text{H}_{14}\text{O}_2$)
“ECF” or “elemental chlorine free”	“elemental chlorine free,” a technique that uses chlorine dioxide for bleaching and disinfection by our downstream customers in the pulp and paper, water and waste water treatment and other industries. It does not use elemental chlorine gas during the bleaching process

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“electrolysis”	a method of using a direct electric current to drive an otherwise non-spontaneous chemical reaction
“H ₂ ”	hydrogen
“H ₂ O”	water
“H ₂ O ₂ ”	hydrogen peroxide, a weak acid with strong oxidizing properties, mainly used in bleaching such as mechanical pulp bleaching for the pulp and paper industry, and as a disinfectant in the food and pharmaceutical industries
“H ₂ SO ₄ ”	sulfuric acid
“H ₄ eAQ”	2-ethyltetrahydroanthraquinone (C ₁₆ H ₁₆ O ₂)
“H ₄ eAQH ₂ ”	2-ethyltetrahydroanthrahydroquinone (C ₁₆ H ₁₈ O ₂)
“HCl”	hydrochloric acid, a corrosive, strong mineral acid with a wide range of industrial uses
“hydrogenation”	a chemical reaction between molecular hydrogen (H ₂) and another compound or element
“intermediate chemical”	chemicals are normally produced when some chemical substances are transformed to a desired product in a succession of steps. Intermediate chemicals are any chemical substances produced after the first step and used for the succeeding steps
“K ₂ CO ₃ ”	potassium carbonate
“KCl”	potassium chloride
“KClO ₃ ”	potassium chlorate
“KClO ₄ ”	potassium perchlorate, a chemical compound with strong propellant properties, commonly used in fireworks and other pyrotechnic applications
“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 watt-hours
“m ² ”	square meters
“m ³ ”	cubic meters
“Mg(OH) ₂ ”	magnesium hydroxide
“N ₂ H ₄ ”	hydrazine

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“N ₂ H ₄ .H ₂ O”	hydrazine hydrate
“NaCl”	sodium chloride / salt
“NaClO”	sodium hypochlorite, the solution form of which is commonly known as bleach, used as a disinfectant or a bleaching agent
“NaClO ₃ ”	sodium chlorate, a chemical compound mainly used in the pulp and paper industry for on-site generation of chlorine dioxide for chemical pulp bleaching. Also used as a disinfectant in water and waste water treatment and in the food and beverage industry
“NaClO ₄ ”	sodium perchlorate, a chemical compound with strong propellant properties, largely used in jet fuel and as a propellant in rocket boosters
“NaOH”	sodium hydroxide / caustic soda, a caustic metallic base with diverse industrial applications
“oxygenation”	in our production of hydrogen peroxide and ADC foaming agent, the process where the working solution reacts with atmospheric oxygen
“pH”	a measure of the acidity or basicity of a solution. Solutions with a pH less than seven are said to be acidic and solutions with a pH greater than seven are said to be basic or alkaline
“PVC”	polyvinyl chloride
“solvent”	a liquid that dissolves a solid, liquid, or gaseous solute, resulting in a solution. Solvents usually have a low boiling point and evaporate easily or can be removed by distillation, thereby leaving the dissolved substance behind. Solvents are also inert, i.e., they do not react chemically with the dissolved compounds. The most common example of a solvent is water
“specialty chemical”	a chemical produced for a specialized use. They are produced in lower volume than bulk chemicals and are more complex to manufacture. Some examples of specialty chemicals are adhesives, additives, antioxidants, corrosion inhibitors, cutting fluids, dyes, lubricants, and pigments
“surfactant”	compounds that lower the surface tension of a liquid, which can increase the dispersion of ADC products
“TCF” or “total chlorine free”	“total chlorine free,” a technique that uses no chlorine compounds for bleaching and disinfection in the pulp and paper, water and waste water treatment, pharmaceutical and other industries