

SKY ENTERPRISE, INC.  
WATER & WASTE TREATMENT CHEMICALS  
PRODUCT AND APPLICATION SUMMARY

**BACTERIA AND ENZYMES:**

- ENBAC 162            Specifically designed for use in digesters to improve methane production and reduce sludge volumes. It is available in bags or drums.
- ENBAC 165            Formulated for use in secondary treatment (i.e. aeration basins, trickling filters, etc.) where ammonia removal, nitrite removal (nitrification) is required.
- ENBAC 168            Particularly useful in secondary treatment systems having high grease and oil loadings. It can also be used in lift stations and other areas where grease deposits tend to agglomerate.

**COAGULANTS**

NOTE: The Formula 6400 and 6500 Series coagulants comprise a wide variety for products used for water (including potable water) and wastewater liquid/solids separation and clarification. Most of the products in this series have been formulated for specific industrial applications as municipalities tend to use low cost commodity products such as alum, aluminum chloride, ferric chloride, etc. However, several specialty products such as those listed below can be used to improve performance and sometimes even replace these commodity products completely. Jar testing is required to optimize applications and select products. The following is a brief summary of some of the available products.

- FORMULA 6400    A polyaluminum chloride which can often replace alum economically in water clarification particularly in low turbidity waters. It functions at much lower dosages and also has the advantage of creating a much lower volume of sludge when compared to alum and other inorganic coagulants. The FORMULA 6500-6509 Series products are blends of polyaluminum chloride with various polyamines and DIMDAACS at various ratios of the polyaluminum chloride to the polyelectrolyte.
- FORMULA 6402    An aluminum chloride which is often used economically in water clarification and wastewater applications. It generally functions at lower dosages than alum and also has the advantage of creating a lower volume of sludge. The FORMULA 6520-6529 Series products are blends of aluminum chloride with various polyamines and DIMDAACS as various ratios of the aluminum chloride to the polyelectrolyte.
- FORMULA 6503    An aluminum chlorhydrate which can often replace alum economically in water clarification particularly in low turbidity waters. It functions at much lower dosages and also has the advantage of creating a much lower volume of sludge when compared to alum and other inorganic coagulants. The FORMULA 6531 thru 6539 Series products are blends of aluminum chlorhydrate with various polyamines and DIMDAACS at various ratios of the aluminum chlorhydrate to the polyelectrolyte.

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- FORMULA 6504 An aluminum sulfate (alum) which is best used where the sulfate ion is needed for the clarification process. It has the disadvantage in that it tends to create a high volume of a highly hydrated sludge. This volume of sludge can usually be reduced by using the FORMULA 6541 thru 6549 Series products which are blends of aluminum sulfate with various polyamines and DIMDAACS.
- FORMULA 6405 A ferric chloride coagulant which has proven useful in various clarification and wastewater applications. The FORMULA 6550 thru 6559 Series products are blends of ferric chloride with various polyamines.
- FORMULA 6407 A ferric sulfate coagulant which has proven useful in various clarification and wastewater applications. The FORMULA 6570 thru 6579 Series products are blends of ferric chloride with various polyamines.
- FORMULA 6440 Various molecular weight polyamines and DIMDAACS which have been found  
FORMULA 6550 very useful in water clarification and wastewater applications. They can function  
Series alone in many applications and can also significantly improve performance of the metal coagulants in other applications. They can be used to greatly reduce sludge volumes.

**DEMULSIFIERS**

NOTE: Various of the FORMULA 6400 and 6500 Series coagulants can be used as demulsifiers. Listed below are a couple of special products based on surfactant technology which also have demulsifying properties. It should also be noted that the emulsions we are describing for water treatment applications are actually reverse emulsions (oil in water) as opposed to water in oil emulsions found in the petroleum industry.

- FORMULA 6710 Highly concentrated surfactants which have excellent demulsifying properties in  
FORMULA 6712 specific applications. Additional products are available for testing purposes.

**DEFOAMERS AND ANTIFOAMS**

- FORMULA 5620 A water based antifoam which is particularly useful in wastewater applications. It has the advantage of containing no oil or solvents which could be objectionable in some applications. It is most often applied continuously to maintain foam control as opposed to shock dosing when rapid defoaming is required.
- FORMULA 5621 Silicone base defoamers most often used where shock dosing is used when foaming  
FORMULA 5622 becomes a problem. It will rapidly defoam a system but have little residual properties in a system.
- Formula 5622M 20% silicone defoamer for non-foodgrade applications. Designed to match competition.

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- Formula 5622C 30% silicone defoamer for non-foodgrade applications. Used in wastewater outfall and high foam potential applications.
- Formula 5622F 10% silicone defoamer for FDA applications. Used in high volumes in food production.
- FORMULA 5626 One of the newest additions to the product line and is an ester based material with no oil or silicone. It requires low dosages and has been tested for environmental acceptance where it passed with excellent results.
- FORMULA 5623 Oil based defoamers which can be used in many wastewater applications. They are biodegradable in aerated systems. They are generally not recommended for use where the treated wastewater runs directly to a storm sewer or into the environment. However, where the wastewater is further treated prior to discharge, these materials are very economical to use. The 5623 is usually more effective in the higher pH (7.5 and above) ranges but all applications should be tested to observe potential results.

**DISINFECTANTS, OXIDIZING AND REDUCING PRODUCTS:**

**A. Chlorine, Chlorine Donors and Oxidizing Materials:**

- FORMULA 5613 A sodium hypochlorite 12.5% (actually manufactured at 15%). This liquid is replacing gas chlorine at many locations due to the severe hazard of the gas should a leak occur. The stability of the product is limited and it should not be stored for more than 2 months or severe potency loss can be expected. It should be stored indoors in a cool area and protected from direct sunlight.
- FORMULA 5605 Various concentrations of hydrogen peroxide which can be used to replace chlorine  
FORMULA 5606 in various treatment applications.  
FORMULA 5607
- FORMULA 6792 A liquid chlorate based product useful where a strong oxidizer is needed for pretreatment.

**B. Dechlorination (reducing agent) Products:**

- FORMULA 6790 This highest concentration sodium bisulfite solution possible. It is used to reduce chlorine in effluent applications and to reduce hexavalent chromium in pretreatment applications.

**POLYACRYLAMIDE POLYMER FLOCCULANTS**

**A. Anionic Products:**

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FORMULA 6000-A Series Powdered anionic coagulants having various charge densities.

FORMULA 6100 Series Emulsion anionics having various charge densities and molecular weights.

**B. Cationic Products:**

FORMULA 6000-C Series Powdered cationic coagulants having various charge densities.

FORMULA 6200 Series Emulsion cationics having various charge densities, molecular weights and/or cationic charge backbones (monomers).

**C. Nonionic Products:**

FORMULA 6000 Non ionic polymers useful in certain clarification applications. The 6000 is a powder and the 6100 an emulsion type.

**POLYMER CLEANERS:**

FORMULA 5370-P A special product developed for cleaning polymer spills, equipment using polymers and even dosing equipment which has become overly fouled.

**TRACER DYES**

FORMULA 5798 Series Comprise a range of tracer dyes and various concentrations of these dyes in liquid form. The standard Formula 5798 is a fluorescent green material which has been the most popular.