Application of inorganic chemicals in industrial wastewater treatment

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Abstract. With the development of social economy, environmental protection projects have attracted wide attention from all walks of life, especially in industrial development, which can pay attention to environmental problems. Inorganic chemicals have important value in industry and can be well used for scientific treatment of industrial wastewater. It mainly includes the specific application of inorganic chemicals in industrial treatment of printing and dyeing wastewater, heavy metal wastewater, papermaking wastewater, fur, slaughter and other organic wastewater, and electroplating wastewater. Understand the contents of chemical agents themselves, discuss the specific classification of chemical agents, and think about the specific application ways and directions of inorganic chemical agents in the process of industrial wastewater treatment, hoping to have a deeper understanding of inorganic chemical agents, provide a good foundation for the smooth and stable development of industrial wastewater treatment, and show the corresponding technologies to improve the future industrial level.

Keywords: Inorganic chemicals; Industrial wastewater; deal with

1. Introduction

The development of society has promoted the progress of industry, and at the same time, it has caused serious environmental pollution problems, which is unfavorable to the overall development of our country, especially for the atmosphere, soil and water quality. In the process of industrial wastewater treatment, it is necessary to adopt a more scientific and reasonable way to reduce wastewater problems and prevent and reduce the pollution phenomenon caused by industrial development. Actually, there are various ways to treat industrial wastewater. Treating industrial wastewater with inorganic chemicals is a new way of treatment, which shows great difference compared with the traditional physical way, and is also a key part of the former industrial wastewater treatment process. It is hoped that through the analysis of this paper, we can understand the application of inorganic chemicals in industrial wastewater treatment, discuss related problems, and promote the smooth and stable development of environmental protection.

2. Overview of chemical agents

2.1 The actual meaning of chemical agents

Chemical agents are agents that can inhibit bacteria. Chemical agents have a wide range of applications, and their uses are relatively wide. Chemical agents can only be used for the effective treatment of industrial wastewater, but also be related to people's daily life. In the process of scientific use of chemical agents, first of all, we should pay attention to the performance of chemical agents themselves, so that they can show specific characteristics in the process of application, and select more suitable chemical agents in combination with different application environments, so as to make them play their corresponding values, so as to prevent the use effect of chemical agents from being not obvious because the same agents are used in different environments or in environments that do not meet their application conditions, which may also cause further damage and impact on the environment. In addition, in the process of using chemical agents, it is necessary to scientifically limit the amount of chemical agents, which must not be too much or too little.

2.2 Scientific and reasonable classification of chemical agents

In the process of treating industrial wastewater, the chemicals used include organic chemicals and inorganic chemicals. There are obvious differences between organic chemicals and inorganic chemicals, mainly because the molecular structures of these two chemicals are not exactly the same. For some inorganic chemicals, their applications in the treatment of industrial wastewater will be more extensive. At the same time, the results of industrial wastewater treatment will be relatively better, so it is a kind of chemical agent which is widely used in
the process of industrial development at present, and it is also a more scientific and effective method to treat industrial wastewater. At the same time, it should be understood that inorganic chemical treatment agents mainly include iron-based treatment agents and aluminum-based treatment agents in the process of treating industrial wastewater, and there are differences between high and low molecules. At present, some scholars have comprehensively used these two kinds of treatment agents to treat industrial wastewater, worked out corresponding treatment schemes, and achieved obvious wastewater treatment effects. However, this treatment method is not very common and applicable in the application process, mainly because this treatment method will consume relatively high cost and low cost performance in its specific application process. In the process of treating different industrial wastewater, different inorganic chemical treatment agents need to be adopted, and a reasonable industrial wastewater treatment scheme should be selected in combination with the actual treatment situation and requirements of industrial wastewater to ensure the actual treatment effect of industrial wastewater.

2.3 Classification of chemical agents
Chemical agents refer to agents that can inhibit bacteria (agents beneficial to bacterial growth are classified as nutrients). Chemical agent is a relatively broad concept, and its use is also relatively extensive. It can not only be used in the treatment of industrial wastewater. At present, the use of chemical agent seems to have little to do with people's daily life, but actually has a lot to do with it. The following points should be paid attention to during the use of chemical agents. First of all, the use of chemical agents must be targeted and reasonable for different use environments. In addition, we must pay attention to the principle of accurate quantification in the use of chemical agents, and neither too much nor too little. Water treatment chemicals include organic and inorganic chemicals. The difference between the two is mainly due to the difference in molecular composition. Relatively speaking, inorganic chemicals are more widely used in industrial wastewater treatment, and the treatment effect is also better. At present, inorganic chemicals are widely used in industrial wastewater treatment. Inorganic chemical water treatment agents mainly include iron series and aluminum series, and have low molecular weight and high molecular weight. At present, there are some industrial wastewater treatment schemes using inorganic chemical agents combined with the two. The effect of wastewater treatment is relatively good, but the cost is relatively high and the cost performance is relatively low. In different industrial wastewater treatment processes, the selection of inorganic chemical agents will be different, and specific plans need to be formulated according to specific conditions.

3. Specific application of inorganic chemicals in industrial wastewater treatment

3.1 Application of inorganic chemicals in the treatment of heavy metal wastewater
In the current social situation, heavy industry has become a powerful driving force for the development of the whole society and an important foundation for economic development. During the development of heavy industry, a large amount of heavy industry wastewater is produced, and at the same time, the environmental pollution phenomenon is extremely serious. There are corresponding difficulties in the specific treatment of heavy metal wastewater, and the treatment process is more complicated and cumbersome. The radioactive substances contained in this heavy industry wastewater are extremely rich, so it can't be easily discharged to the outside world, otherwise it may cause a corresponding impact on the overall environment, the living conditions of human beings and the overall air quality. In addition, after the heavy metal wastewater is produced, it also needs to be treated in time to ensure the treatment effect of heavy metal wastewater. In the treatment of heavy metal wastewater, the chemical substances that need to be adopted also show diversity. In application, it is necessary to choose an appropriate treatment method according to the differences of industrial wastewater itself, which shows the effect of needle alignment. Specifically, first of all, it is necessary to analyze the components of particles in industrial wastewater, understand the pH and pH of industrial wastewater, and take appropriate materials in combination with the basis of industrial chemistry to form oxide precipitation through comprehensive reaction. Generally speaking, the presence of iron oxidants in inorganic oxidants can precipitate some heavy metal wastewater, which can reduce and control the pollutants. Iron inorganic chemicals can save the treatment time of industrial wastewater more effectively in the specific application process, and relieve the pressure of industrial development, making the treatment of industrial wastewater simpler and more convenient.

3.2 Application of inorganic chemicals in printing and dyeing wastewater treatment
With the development of economy, people's living standard is getting higher and higher, people have higher requirements for material life, and they also pay more attention to their own image. On this basis, clothing manufacturers have gradually developed and produced more obvious effects in the fierce market competition. The development of garment manufacturing industry can produce all kinds of garments and garments of all kinds of materials and quality for people, but at the same time, it will also produce printing and dyeing wastewater. The existence of these printing and dyeing wastewater will cause serious pollution to articles, but the treatment process will be more complicated. In the process of treating printing and dyeing wastewater, it is often necessary to use more technologies and more professional
tools. This kind of wastewater treatment is extremely difficult. If the printing and dyeing wastewater is not treated scientifically and reasonably, it will inevitably lead to a more serious impact on the overall environment and threaten people's lives. Therefore, it is necessary to decontaminate the main components existing in printing and dyeing wastewater, including sulfate ions and acid ions, etc. For different printing and dyeing ion components, it is necessary to finish the treatment regularly and make corresponding plans. In the process of treatment, it is necessary to first condense the printing and dyeing wastewater, then stir it properly, and after a period of precipitation, add inorganic chemicals properly to precipitate it again, and then filter to obtain more pure water resources, so as to achieve the basic requirements and objectives of inorganic chemicals in the treatment of printing and dyeing wastewater, and make the wastewater treatment effect better.

3.3 Application of inorganic chemicals in organic wastewater treatment process

In the development of society, people will have a higher pursuit of material life, hoping to use some more advanced materials in their lives, reflecting their own characteristics and unique pursuit and taste, which also enables a number of fur manufacturers to achieve the corresponding development and make the fur market more advanced. The industrial wastewater produced by fur manufacturers in the process of development is mainly produced in the process of fur processing. The fur processing often needs to be cleaned, divided, assembled and dyed, and the discharged wastewater will include rich organic matter, fat and protein. At the same time, organic wastewater will also come from slaughter plants, and people will slaughter animals and then clean them, and the blood discharged during the cleaning process will be rich in organic matters. The existence of organic matter will have a serious impact on water bodies. Although some organic wastewater can be treated and controlled by simple inorganic chemicals, some organic wastewater produced by fur processing will include many suspended solids, which are often difficult to achieve specific goals and requirements only by inorganic chemicals, so it is necessary to use iron inorganic chemicals for corresponding treatment to achieve the ultimate goal.

3.4 Application of inorganic chemicals in industrial wastewater treatment after electroplating

In the development of people's daily life, many articles are finished by electroplating, and the difference of electroplating ingredients makes the quality of electroplated materials different. At the same time, the pollutants in industrial wastewater produced after electroplating also show the difference. In view of the current electroplating wastewater, there are some toxic elements in many industrial wastewater. If these toxic substances are discharged to the outside environment, it will inevitably lead to the corresponding impact on the environment. Therefore, it is necessary to pay attention to the treatment of industrial wastewater after electroplating.

At the same time, it should also be clear that if electroplating industrial wastewater really meets the treatment objectives and requirements, it must be treated with inorganic chemicals to realize the function and effect of adsorption reaction. On this basis, some toxic substances can be separated from the chaotic structure of water molecules, and after that, these toxic substances can be precipitated and adsorbed, and finally the filtered pure water resources can be obtained, thus achieving the specific goal of industrial wastewater treatment. After the first treatment, it will be found that these electroplating wastewater molecules still exist in the wastewater, and they need to be adsorbed again to achieve complete treatment, which reflects the specific application value of inorganic chemicals in industrial wastewater treatment.

3.5 Application of inorganic chemicals in papermaking wastewater treatment

With the development of modern science and technology, internet plus's model has become more and more advanced and modern, and people's dependence on electronic equipment is getting higher and higher, far exceeding that on paper. At the same time, there is less and less waste water produced by the paper industry in the society, but there are many areas where the knowledge of waste water is not comprehensive enough. They still pay attention to and use paper books, and many people are highly dependent on paper reading, so there is still the problem of paper waste water. In the process of treating papermaking wastewater, the operation process is complicated, and some inorganic chemicals will be used. Actually, compared with some other wastewaters, papermaking wastewater mainly includes bleaching agents and pulp, etc. In the process of treatment, inorganic chemicals that can be used are more common and common. The actual process of papermaking wastewater treatment is complicated, including sedimentation, flocculation, etc. Inorganic chemicals need to be added in sedimentation and other aspects, so that it can be fully combined with wastewater, and then the whole wastewater treatment process can be completed by filtration.

4. Conclusion

To sum up, inorganic chemicals are the main application method of industrial wastewater treatment. This wastewater treatment method has a good treatment effect, and the cost of some inorganic chemicals is relatively low. Therefore, it is a cost-effective industrial wastewater treatment method on the whole. In the specific treatment process, different treatment schemes are required for different types of industrial wastewater, so as to effectively improve the effectiveness of treatment. Especially in the treatment process of heavy metal wastewater, electroplating wastewater and other wastewater containing toxic substances, it is more necessary to improve the wastewater treatment process, so that the wastewater can meet the discharge standard, To achieve industrial development without causing excessive damage to the environment.In the process of
modern industrial development, the wastewater problem is a common phenomenon. Through the application of inorganic chemicals, it can better assist in the treatment of industrial wastewater, solve the impact of pollutants caused by industrial wastewater problems on the development of the whole society, and comprehensively treat industrial wastewater after it is produced, so as to reduce environmental pollution.

References


