Technical Bulletin 5002



Sodium Chlorate Crystals

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Did You Know?

A serious problem can occur with dry (powdered) sodium chlorate crystals. As bleach around pump seals dry and decomposes, the "white powder" found on the surrounding surfaces can contain high levels of sodium chlorate. This is because of the high levels of heat found at pump seal faces (common with outside seals). If you hit the dry powder with a hammer, as may occur when disassembling a seal, the chlorate can explode and cause serious injury to the person working on the seal. A typical situation when this might occur would be if a maintenance employee working on the bleach production line notices the white powder on some piping and attempts to wipe the dry powder with a cloth. The friction created between the powder and cloth could spark and ignite, causing injury. A simple solution to this dangerous situation is to wash the areas under repair first with water and, in normal plant operation procedures, to clean and repair any leaks and to replace pumps and seals that create dry powder near the pump seal.

