

KOLENE[®]

6·2·3

Reducing Agent[™]

for chromium waste





Kolene 6-2-3 Reducing Agent quickly and efficiently converts Cr^{+6} to Cr^{+3}

Reducing water-borne emission of hexavalent chromium has become a top priority for environmental protection agencies in virtually all states. In response to this need, Kolene® Corporation, a leader in the development of practical, innovative technologies for the metals-producing industries, has developed Kolene 6-2-3, a single-step, fast-acting reducing agent which converts Cr^{+6} to the far less hazardous, and less stringently regulated, Cr^{+3} .

A Key Advantage: Kolene 6-2-3 performs at alkaline pH levels

This is significant because it eliminates the need for bidirectional pH adjustment, which is mandatory for the operation of conventional chrome-reducing methods, and therefore both speeds and simplifies the process.

Operation

Kolene 6-2-3, in its granular form, is added either manually, according to a pre-determined dosage formula, or automatically. Within minutes of the addition, the hexavalent chromium is reduced to its trivalent state, with the subsequent formation of insoluble trivalent chromium hydroxide. The insoluble material is filtered from the waste stream; the water is neutralized with a common acid, if necessary, and disposed of as ordinary wastewater.

Application

Kolene 6-2-3 has proven to be effective in converting hexavalent chromium from all types of plating waste streams. It is equally effective when applied to chromate rinses.

Equipment

Kolene will engineer and manufacture process equipment to user specifications and application. Systems can be supplied in mild steel, stainless steel, polypropylene, polyethylene and PVC with or without material handling and control packages. Agitation is recommended for maximum efficiency. Kolene equipment is designed for ease of installation. Systems are engineered on an advanced CAD system; a print-out of every component used in manufacture aids in maintenance and allows systems to be expanded or upgraded to meet future requirements.

Kolene 6-2-3 is also available as a stand-alone product for use in existing equipment.

Cost

Kolene 6-2-3 is cost-competitive with less efficient chrome-control technologies while offering the added benefits of single-step operation.

Product demonstration

Qualified manufacturers and processors who generate chromium-laden waste streams can obtain test kits of Kolene 6-2-3. Kolene will also test-process your sample material at Detroit headquarters on a complimentary basis.

Kolene Corporation is a leading developer/supplier of proprietary molten salt formulas for the cleaning, conditioning, descaling and performance enhancement of ferrous and select nonferrous metals. Kolene molten salts are widely used throughout the finishing and investment casting industries.



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Beaker on the left shows sludge containing hexavalent chrome, dissolved in water. Center beaker shows the solution following addition of Kolene® 6-2-3 Reducing Agent. The solution is cloudy as the hexavalent chrome is reduced to its trivalent state, with the subsequent formation of insoluble trivalent chromium hydroxide. The right beaker shows the final result: concentrated chromium that can be disposed of far more efficiently, and plain water.