

## EMDIRENAL AOX

***Antioxidant standardized to effectively reduce Cr(VI) compounds in chrome tanned leathers.***

### **Descriptive properties**

|                   |                               |
|-------------------|-------------------------------|
| <b>Appearance</b> | : White crystalline powder    |
| <b>pH</b>         | : 2,3 - 2,6                   |
| <b>Storage</b>    | : App. 2 years - dry storage- |

Emdirenal AOX is an effective agent for reducing the Cr(VI) amount in chrome tanned leathers.

The possible direct sources of Cr(VI) are the unreduced chromium present in the basic chromium sulphate used in tanning and some metal complex dyes and inorganic pigments based on lead chromate.

Factors promoting the formation of Cr(VI) in the leather production can be listed as:

- high neutralization pH
- use of ammonia
- long exposure to UV light for drying
- use of fatliquors having free or esterified unsaturated fatty acids
- use of alkali binders in finishing
- use of yellow dyes and pigments with chromate containing ammonia or carbonates

Factors reducing the formation of Cr(VI) in the leather production can be listed as:

- neutralization with reductive agents such as Emdirenal RTH
- treatment with vegetable tanning extracts such as Tara

Once all these factors are considered and controlled, if still the leather contains Cr(VI) then an after treatment with Emdirenal AOX will effectively reduce Cr(VI).

### **Application recipes**

With the following application leathers having less than 25 ppm Cr(VI) with ageing, the Cr(VI) content will be reduced to less than 3 ppm.

After all processes of fatliquoring, dyeing, top dyeing and fixation are completed and the pH is 3,6:

|                          |         |      |               |     |      |
|--------------------------|---------|------|---------------|-----|------|
| <b>Washing:</b>          | % 300   | 25°C | Water         | 10' | Run. |
| Drain.                   |         |      |               |     |      |
| <b>Cr(VI) treatment:</b> | % 150   | 25°C | Water         |     |      |
|                          | + % 1,5 |      | Emdirenal AOX | 30' |      |

Drain.

Pile over night and continue as usual.

### **Remarks**

As finishing pigments and auxiliaries may cause Cr(VI) one needs to test before and after finishing for Cr(VI)

### **Packaging**

25 kg in kraft bags.