

JETAL SALTS

ALKALINE BLACKENING PROCESS FOR IRON AND STEEL

PRODUCT USE:

JETAL SALTS is a chemical conversion coating product used specially in treating steel and iron by immersion. The process converts the metal surface to a non-metallic, black, iron-oxide coating, which is both decorative and protective. The use of oils, waxes or clear lacquers over the black oxide coating provides an attractive, corrosion-resistant finish.

EQUIPMENT:

The tank for use with **JETAL SALTS** solution may be constructed of mild steel. It should be equipped with accurate temperature control and a means of making automatic water additions.

The heat exchanger may be of mild steel, and should have adequate capacity to provide sufficient heat to maintain the bath at 125° - 150°Celsius.

It is important that no equipment coming in contact with the solution should be fabricated from aluminum, brass, bronze, copper, lead, tin, zinc or galvanized iron, because the bath will then begin to foam severely and to overflow, and in addition the blackening solution will be rendered unusable.

OPERATING PRINCIPLE:

Temperature range: 124 - 145°Celsius. The optimum temperature will depend on the type of metal being processed.

Immersion Time: 10 - 30 minutes.

Usual Concentration: 800 kg **JETAL SALTS** per 1,000 litres of water.

TESTING AND CONTROL:

The concentration of **JETAL SALTS** is determined by the boiling temperature. An addition of 5,5 kg **Jetal Salts** per 100 l solution will raise the boiling temperature approximately by 3°Celsius.

Important: Add the dry material slowly to the solution.

The volume of the solution should be maintained constant by adding water to replace that is lost by evaporation. However, due to the high temperature of the bath, water **cannot** be added directly.

Water may be added by trickling it through a pipe expansion below the surface of the solution.

PRODUCT DESCRIPTION:

Appearance: Coarse white powder.
Total Alkalinity: 40 - 55 ml's.

Ref. No. 01/24

PRECAUTIONS:

- Contains a strong alkali. (Corrosive)
- Re-active to oxidizing agents.
- May cause severe burns to skin or eyes. Seek immediate medical attention.
- When handling product wear face shield, rubber gloves and protective clothing.
- Keep out of reach of children.
- Do NOT ingest.
- Use protective gear.

FIRST AID:

- External: In case of contact with skin or eyes, flush with plenty of cool running water. Seek medical attention.
- Eyes: Immediately flush eyes with plenty of cool running water for at least 15 minutes. Seek immediate medical attention.
- Internal: If swallowed, immediately drink a large quantity of water. Get medical attention.

Every endeavor has been made to ensure that the information in this Data Sheet is reliable, but we do not accept any liability for any loss, injury or damage which may result from its use.