

# Oakite® 100

**Highly-alkaline, low-foaming, chelated material designed to handle a wide variety of cleaning jobs**

## PRIMARY APPLICATION

Oakite 100, a highly alkaline material, has been developed to provide superior cleaning in many areas. In paper mills, it effectively removes tough stock system soils. In metalworking shops, it completely removes stencil inks, oils and other shop soils from steel and magnesium parts. Low foamers, combined with rinsing agents, make it ideal for cleaning metal parts (including those to be later zinc phosphated) by spray or tank application.

In addition, Oakite 100 is used for cleaning air conditioning and recirculating systems. It's also used for cleaning motor blocks, removing paint finishes and general purpose heavy-duty cleaning. Oakite 100 is authorized by the USDA for Code A2 application in federally inspected meat and poultry plants.

## CHEMICAL CHARACTERISTICS

chemical composition .....	blend of caustic and other alkalis including chelates and surfactants
physical form .....	as received: light-yellow granulated powder as used: off-white translucent solution
odor .....	none
bulk density .....	1188 g/l(9.9 lb/gal)
flash point.....	none
hygroscopic tendency.....	significant
foaming tendency .....	none
recommended diluent .....	water
maximum solubility .....	240 g/l at 21 °C (32 oz/gal at 70 °F)
behavior in hard water .....	chelates
rinsability .....	fair
biodegradable surfactants.....	yes
phosphate free .....	yes
normal operating temperatures.....	38° to 93°C (100° to 200 °F)
normal working .....	1.9 to 240 g/l (1/4 to 32 oz/gal) (depending upon application)
pH at working concentrations .....	13.4 at 39.7 g/l (5.3 oz/gal)
effect of prolonged boiling .....	none
effect of working solutions on metals .....	rate of metal loss from 24-hour immersion in Oakite 100, 240 g/l (32 oz/gal) at 82°C (180°F), projected for one year, is as follows:

<b>metal (alloy)</b>	<b>mm/yr</b>	<b>in/yr</b>
steel (1010)	0.10	0.004
stainless steel (403)	0.13	0.005
stainless steel (304)	0.00	0.000
stainless steel (316)	0.00	0.000
copper	0.03	0.001
brass	0.10	0.004
magnesium	0.48	0.019
galvanized steel	10.24*	0.403*
aluminum (2024)	attacks	attacks

\*Selective attack on zinc stripping.

## APPLICATION PROCEDURE

### For Cleaning Paper Mill Stock Systems

Make up a solution of Oakite 100, 1.9 to 7.5 g/ℓ (1/4 to 1 oz/gal) in the beater or other designated starting point and follow the path of the pulp. Allow solution to soak wherever possible and necessary. Temperatures should be as high as possible.

### For Cleaning Metal Parts By Spray Washer Application

Use Oakite 100 at 7.5 to 30 g/ℓ (1 to 4 oz/gal) to remove stencil inks, oils and other shop soils from steel and magnesium parts. Heat from 38° to 71 °C (100° to 160°F). Follow with a rinse.

### For Cleaning Air Conditioning and Recirculating Systems

Circulate a 3.8 to 15 g/ℓ (1/2 to 2 oz/gal) of Oakite 100 throughout the system, room temperature to 71 °C ( 160°F). Exact concentrations and temperatures will depend upon conditions in each plant.

### For Cleaning Motor Blocks, Parts by Tank Immersion

Charge tank with Oakite 10, 60 to 120 g/ℓ (8 to 16 oz/gal) and heat to 93°C (200°F). Immersion time will be determined by the type of soils to be removed. Follow with a pressure rinse.

### For Stripping Paint Finishes by Tank Immersion

Add Oakite 100 to the tank at 240 g/ℓ (2 lb/gal) and heat to 71 °C (160°F). Immersion time will be determined by the type of paint finish to be removed.

### For General Purpose Cleaning

Oakite 100 can be used for many miscellaneous jobs such as cleaning cutting oil sumps, washing floors, etc. Concentrations will vary with the type of cleaning operation. Recommended range is 15 to 75 g/ℓ (2 to 10 oz/gal).

### Solution Control:

For concentration use Gardotest Procedure 92

Sample Size: 2.0 mls

Factor: 3.2

For free and total alkalinity use Gardotest Procedure 123 (See Procedure)

For Etching Activity use Gardotest Procedure 17

Sample Size: 5.0 mls

Factor: 0.58

## EQUIPMENT

Chemical Dispensing: The Chemetall Oakite Slurry Feed System can be used to premix powdered products with water allowing them to become slurries. The slurries can then be fed into the process automatically with a process controller and/or the proper chemical feed pump. The system includes a slurry tank, tank stand, mixer and chemical feed pump. Please contact the Chemetall Oakite Process Equipment and Engineering Department for specific recommendations.

## NOTES ON USE (See Material Safety Data Sheet)

When preparing new solutions or adding to existing ones, slowly sprinkle product over surface of solution while stirring to avoid spattering. Do not add large amounts of dry powder to solution at any one time. **DO NOT ADD TO HOT WATER OR HOT SOLUTION WARMER THAN 43° TO 49°C (110° TO 120°F).**

## SAFETY AND HANDLING

Oakite 100 is a highly alkaline industrial material containing sodium hydroxide. Direct contact causes burns of eyes and skin. It is harmful if swallowed or inhaled. Avoid contact with eyes, skin and clothing. Wear rubber gloves, safety goggles or face shield, and suitable protective clothing when handling dry powder or solutions. Avoid breathing dust or mist. Use with adequate ventilation. Wash thoroughly with water. Do not take internally.

**First Aid in Case of Contact:**

Immediately flush **eyes** or **skin** with plenty of water for at least 15 minutes. For **eyes**, get medical attention. Remove contaminated clothing and shoes. Wash them before reuse. If **swallowed**, wash out mouth thoroughly with water. Give several glasses of water or milk to drink. Contact a physician.

**KEEP OUT OF REACH OF CHILDREN**

**DISPOSAL**

Dispose of according to all federal, state and local regulations.

**SHIPMENT**

May be shipped by any common carrier. Freight classification is "Corrosive Solid, NOS., 8, (sodium hydroxide), UN 1759, PG II." Product Code No.: 1000.

**STORAGE**

Suitable for general indoor storage in a cool, dry place. Keep container closed when not in use.

- effect of high temperature storage..... none
- effect of low temperature storage..... none
- effect of aging..... none

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