

# **Kingscote** **INDUSTRIES**

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## **TECHNICAL DATA SHEET**

### **EAGLITE NDT FLUID**

(Non-Destructive Testing Fluid)

NDT Fluid has been formulated to be used as a testing media for non destructive testing of nodular & cast iron castings. It can also be used as an excellent grinding fluid as well as for several months of indoor rust protection of steel parts. It has unsurpassed quality of non-foaming. Rust protection & clarity with high tolerance for the contamination. NDT Fluid does not contain any nitrite or nitrate thus avoiding the possibility of nitrosoamine formation (which has been found Carcinogenic in animals) while it is under use or staying in a drum. Its' wetting & rust prevention qualities are excellent. Since the NDT Fluid would not turn cloudy/milky at higher temps, one can use re-circulating/condensed warm water from the plant without affecting the clarity of the bath.

#### **SPECIFICATIONS:**

Color:	Available in Green or Amber Yellow
Odor:	Bland
Wt/Gal:	8.8#
Foam Test:	0.0" height of foam in blender test. Circulating pump also gave the same results.
pH:	7.4 – 8.4 (2% solution in water)
Corrosion Test:	(Cast iron chips) No rust for more than 8 weeks (3% solution in water)
Oil Emulsion:	Does not emulsify tramp oil.
Bath Make-Up:	3-7% by volume in water (10-15% recommended in highly corrosive environment)
Warranty Disclaimer:	Since the actual use of our products and the above information by others is beyond our control, we make no guarantee, expressed or implied as the effects of such use or the results obtained even though the technical information and suggestions for use contained herein are believed to be accurate and reliable. The above product and the process are not intended to violate any patent rights.

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## **TEST METHOD TO DETERMINE CONCENTRATION**

### **EAGLITE NDT FLUID** (Non-Destructive Testing Fluid)

Reagents Required: 0.1N HCL, 0.1% w/v Methyl Orange indicator

Apparatus Required: Conical Flask (250 ml), Pipette 10 ml, Burrete 25 ml

Procedure: Production testing tank solution of NDT Fluid is usually made up by adding 5-10% by volume of NDT fluid with tap water.

Pipette 10ml of tank solution in 250ml titrating conical flask. Add 50ml of water and 3 drops of methyl orange indicator. The flask solution will be pale yellow. Now titrate it with 0.1N HCL, hydrochloric acid until the color changes from pale yellow to distinct pinkish orange. Note down the ml of hydrochloric acid used. Find the concentration of NDT Fluid as follows:

% of NDT Fluid in tank is:  $0.6759 \times \text{ml of HCL used}$

OR

Table:

<u>0.1N HCL used</u>	<u>% NDT Fluid in Tank</u>
3.7	2.5
7.4	5.0
11.1	7.5
14.8	10.0
18.5	12.5
22.2	15.0