

Product Data Sheet



## For Wet Method Fluorescent Magnetic Particle Inspection

### DESCRIPTION

ZChek-F9 is a green colored magnetic particle powder designed to be fluorescing bright – Green under UV Light. ZChek-F9 consists of high sensitivity particles for detection of very fine, medium, and shallow discontinuities in Ferro magnetic materials. Using the state-of-the-art encapsulation technology, ZChek-F9 is manufactured to exhibit excellent properties (High permeability, low retentivity, high mobility and optimum particle distribution) required for high sensitive fluorescent MPI process. ZChek-F9 is oil-based powder; hence it needs to be used with ZChek-801Cart oil. However, when added

with suitable water conditioner WA9, ZChek-F9 can also be used with water as a carrying medium

# **CONFORMANCE / APPROVALS**

- ASME B & PV Code, Sec V
- EN ISO 9934-2
- AMS 3044
- ASTM E709
- ASTM E1444/ E1444M

#### **FEATURES**

- Fluorescent Bright Indication under UV Light.
- Provides Excellent Discontinuities Definition.
- Sharp Indication with Minimal Background.

### **APPLICATIONS**

ZChek-F9 is designed to detect medium to fine surface and slightly subsurface discontinuities like inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks, and fatigue cracks in forgings, castings, auto components (machining cracks, grinding cracks, heat treatment cracks), fabrication, steel making (billets and bars), surface transportation, oil and gas

### **TYPICAL PROPERTIES**

| Color Under White Light    | Green                     |
|----------------------------|---------------------------|
| Color Under Black Light    | Bright Green Fluorescence |
| Mean Particle Size         | 10 Microns                |
| Particle Size Range        | 1-16 Microns              |
| Sensitivity                | 7 (Ketos Ring)            |
| Max. Operating Temperature | 48.9 ° C Maximum          |
| Settling Volume            | 0.1 – 0.15 ml             |









## **DIRECTIONS FOR USE**

- Use F9 at 0.75 1.0 gram per liter. Run the pump for 15 minutes before testing.
- Check the concentration before use at least once each shift using centrifuge tube.
- Parts should be clean and dry prior to testing.
- The bath must be under continuous agitation
- Using the wet continuous method, the bath is applied to all surfaces of the part. The instant the bath stream is removed from the part the magnetizing current is applied
- Follow ASTM E1444 for the further processing.

### PACK SIZES

- 1 Kg pack Part #223813
- 1 Pound pack Part #223810

#### **HEALTH & SAFETY**

Information on Health & Safety is made available through material safety data sheets and the same can be reviewed through the company's website www.zchem.in.

### **STORAGE & SHELF LIFE**

Bulk packing have a Shelf Life of 5 Years, if unopened and stored as per ZChem recommendations.

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Disclaimer: We have taken best care to ensure that the information provided in this data sheet is accurate. Our product is guaranteed to conform to the specifications provided. We make no other warranty; hence the liability is limited to replacement of product only.

