

SHELL CALLINA® Fluid 2100

Cleaner/Rust Preventative

SHELL CALLINA® Fluid 2100 is a mildly alkaline product specifically developed to replace nitrite-containing cleaner/rust preventatives. SHELL CALLINA® Fluid 2100 is a nitrite-free compound that will provide excellent protection on steel and cast iron substrates. SHELL CALLINA® Fluid 2100 can be used as a final rinse at low concentration or as a cleaner/inhibitor in one-stage operations.

Main Applications

- Process cleaner for steel and cast iron materials
- Can provide some corrosion protection at low concentrations in one stage operations

Advice on applications not covered in this handbook may be obtained from your Shell representative.

SHELL CALLINA® Fluid 2100 is typically used at 0.5% to 5.0% by volume. The temperature of the cleaner can be ambient to 180°F depending on severity of soil. The cleaner can be applied by immersion, spray or hand wiped on the metal surface.

Concentration determination

Using the 5 ml syringe, transfer 5 ml of bath sample into the plastic beaker and add 50 mls of water. Add 10 drops of Phenolphthalein Indicator.

Add 0.5 N Acid, dropwise, into the beaker while shaking, until a pink to colorless change is observed. The number of drops times 0.172 is equal to the concentration of in % by volume.
EXAMPLE: No. of drops 0.5 N Acid = 5
 $5 \times 0.172 = 0.86\%$ by volume

Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

Protect the Environment

Do not discharge into drains, soil, or water.

Typical Physical Properties

| SHELL CALLINA® Fluid 2100 | Test Method | |
|----------------------------|-------------|---------------------|
| Appearance | Visual | Clear yellow liquid |
| Odor | | Mild |
| Specific Gravity, 60/60 °F | | 1.12 |
| Flash Point, °F | D92 | N/A |
| pH | | |
| Concentrate | | 10.0 |
| 5% Solution | | 9.5 |
| Foaming Tendency | | None to low |

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.