

## ACID CORROSION INHIBITOR

### HWCI-401HT

HWCI-401HT is a high performance hydrochloric acid corrosion inhibitor. This product can generally be used as a stand alone, or it can be boosted with general intensifier for extremely high temperatures or prolonged exposures. HWCI-401HT can be used in traditional anionic as well as cationic acid fluid systems.

#### **APPLICATION**

HWCI-401HT is typically used between 0.2 and 2%, depending on the temperature, exposure time and metallurgy.

#### **PROPERTIES**

| Appearance | · · ·   |  |
|------------|---------|--|
| Odour      |         |  |
| pH (1%)    | 1-3     |  |
| Freeze     | < -25°C |  |
| Flash      | > 100°C |  |
| Density    | 1.12    |  |

#### **HANDLING & STORAGE**

Handle wearing appropriate PPE. Ensure adequate ventilation. Store out of direct sunlight. Refer to SDS for more information.

#### PERFORMANCE

| Table 1. 15% HCl, J-55 Steel Results |              |             |                |                               |             |  |  |  |
|--------------------------------------|--------------|-------------|----------------|-------------------------------|-------------|--|--|--|
|                                      |              | %<br>Formic | HWCI-401HT     |                               |             |  |  |  |
|                                      | Test<br>Time |             | %<br>Inhibitor | Corrosion<br>Rate<br>(lb/ft²) | Pit<br>Rank |  |  |  |
| 150 / 66                             | 24 Hrs       | 0           | 0.2            | 0.0039                        | 0           |  |  |  |
| 200 / 93                             | 16 Hrs       | 0           | 0.6            | 0.0186                        | 0           |  |  |  |
| 250 / 121                            | 6 Hrs        | 4           | 0.6            | 0.0085                        | 0           |  |  |  |
| 350 / 177                            | 2 Hrs        | 6           | 2              | 0.0486                        | 3           |  |  |  |

# Table 2. 28% HCl, J-55 Steel ResultsTemp<br/>(°F/°C)Test<br/>Time%<br/>FormicHWCI-401HT%<br/>InhibitorCorrosion<br/>Rate<br/>(lb/ft²)Pit<br/>Rank

| (°F/°C)   | Time   | Formic | %<br>Inhibitor | Rate<br>(lb/ft <sup>2</sup> ) | Pit<br>Rank |
|-----------|--------|--------|----------------|-------------------------------|-------------|
| 150 / 66  | 24 Hrs | 4      | 1              | 0.0068                        | 0           |
| 200 / 93  | 16 Hrs | 6      | 2              | 0.0652                        | 3           |
| 250 / 121 | 6 Hrs  | 6      | 2              | 0.0775                        | 3           |