



**HYBRID CHEMICAL
TECHNOLOGIES**

CATIONIC ACID CORROSION INHIBITOR

HWCI-401

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

APPLICATION

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

PROPERTIES

Appearance	Liquid, Brown
Odour	Characteristic
pH (1%)	4-6
Freeze	-45°C
Flash	25°C
Density	0.97

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

Temp (°F/°C)	Test Time	% Formic	HWCI-401		
			% Inhibitor	Corrosion Rate (lb/ft ²)	Pit Rank
150 / 66	24 Hrs	0	0.2	0.0040	0
200 / 93	16 Hrs	0	0.6	0.0190	0
250 / 121	6 Hrs	4	0.6	0.0083	0
350 / 177	2 Hrs	6	2	0.0498	3

Table 2. 28% HCl, J-55 Steel Results

Temp (°F/°C)	Test Time	% Formic	HWCI-401		
			% Inhibitor	Corrosion Rate (lb/ft ²)	Pit Rank
150 / 66	24 Hrs	4	1	0.007	0
200 / 93	16 Hrs	6	2	0.068	3
250 / 121	6 Hrs	6	2	0.078	3