

# THIOCAT<sup>®</sup>

*“Taking the excitement out of your start-up one reactor at a time”*

## **Ex-situ fixed-bed catalyst sulfiding** **Pre-activation, key advantages:**

- + No odorous chemicals needed
- + Reduced startup time
- + No exotherms during startup
- + No sour water formation
- + No reduction of active metals
- + No metal hydrate formation
- + No metal leaching from Type II catalysts
- + No negative effects from process upsets during start up
- + Maintained catalyst integrity & maintained fill volume
- + Designed for latest generation high-activity catalysts
- + 3,000-1,000,000 lb. + lots

## **Cracked Feed Tolerance:**

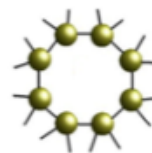
- + Start-up with Cracked Feed Immediately
- + No 72hr break-in period

## **Catalyst Loading Under Air:**

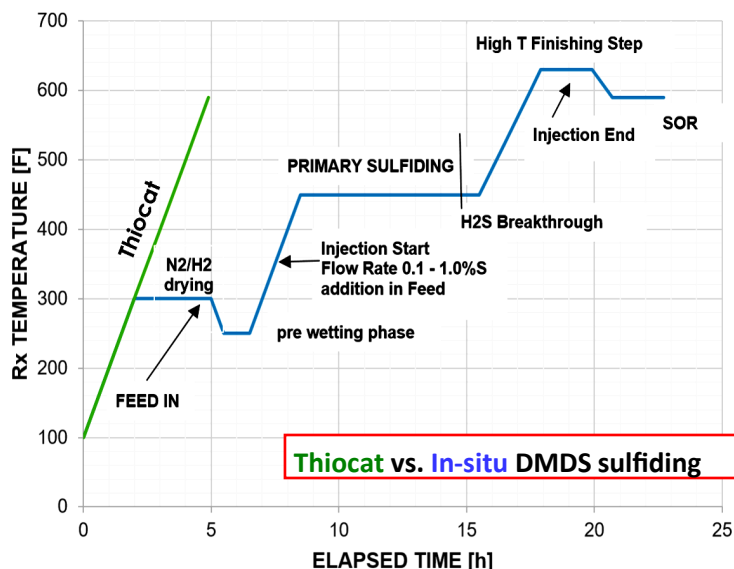
- + Oil or Air Stabilized Catalyst



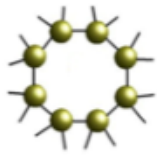
**Great for Hydrotreaters,  
Hydrocrackers  
and Tail Gas Units**



## Chem32



Chem32 LLC, Plant: 3007 Burnett St., Orange, TX 77630.  
Office: 3730 Kirby Drive, Suite 805, Houston TX 77098  
Ph. 409-883-8500, Fax. 409-883-8501



# Chem32

---

## THIOCAT<sup>®</sup> ex-situ catalyst activation

Thiocat pre-activation is performed in a fixed bed reactor **typically over a 24-hour period in multiple steps including an extended period at the desired finishing temperature.**

The sulfiding plant is ISO-9001:2015 certified.

The result is a fully sulfided and activated catalyst that has **fully retained its integrity and loading volume** due to the fixed bed process and gentle handling.

The sulfided catalyst is self-heating and inert loading is required. It is typically shipped in UN3190 approved stainless steel or standard sand blasted and pressure tested bins or in drums with air-tight liners.

Thiocat catalyst preactivation offers many benefits over traditional in-situ sulfiding with sulfur containing chemicals and older types of catalyst pre-sulfurizing technologies requiring in-situ activation.

- Startup time savings between 12-30 hrs
- Elimination of odorous sulfur-containing chemicals
- Startup can be resumed immediately after process interruptions
- Off-grade storage requirements significantly reduced
- Sulfiding levels checked every 2,000 lbs
- No risk for reduction of base metals during startup
- No additional (external) contractors or sulfiding equipment required during startup
- Heat up to SOR only
- No exotherms during startup
- No sour water formation
- Simple and quick solution for small reactors and skims
- Activated catalyst samples are retained by Chem32

**Thiocat – a customized and flexible sulfiding technology with unique features:**

- **Long sulfiding times => Maximized sulfiding**
- **Zero volume losses**
- **All lots sulfided separately with no comingling**
- **Small lots are sulfided to the same high quality as big lots**
- **Sulfiding conditions optimized for each catalyst**

**Thiocat CFT (Cracked Feed Tolerant)** treatment is available for immediate startup of feeds containing olefinic feedstocks.

Thiocat **Oil and Air stabilization** is also available for controlled **loading under air.**

---

**Contact us for more information:**

**David Phillips** ([davidphillips@chem32llc.com](mailto:davidphillips@chem32llc.com))

**Jesper Marklund** ([jespermarklund@chem32llc.com](mailto:jespermarklund@chem32llc.com))

**Brad Burditt** ([bradburditt@chem32llc.com](mailto:bradburditt@chem32llc.com))

[info@chem32llc.com](mailto:info@chem32llc.com)