

# Catalyst Regeneration & Hydrogenation Gas Standards

(Hydrogen H<sub>2</sub>, Carbon Monoxide CO, Methane CH<sub>4</sub>)

YIGAS INTERNATIONAL LIMITED

## 1. Overview

Catalyst regeneration and hydrogenation processes rely on high-purity reducing gases. YIGAS offers reliable supplies of H<sub>2</sub>, CO, and CH<sub>4</sub> for chemical, petrochemical, and refining applications.

## 2. Technical Specifications

| Gas             | Purity Level | Typical Phase | Temperature Range | Common Pressure |
|-----------------|--------------|---------------|-------------------|-----------------|
| H <sub>2</sub>  | ≥99.999%     | Gas           | -253 °C           | 10—200 bar      |
| CO              | ≥99.5%       | Gas           | -192 °C           | 5—200 bar       |
| CH <sub>4</sub> | ≥99.5%       | Gas           | -161 °C           | 10—200 bar      |

## 3. Industrial Standards

All gases comply with:

- ISO 14687 – Hydrogen fuel quality
- API 941 – Catalyst protection and metallurgy
- EIGA Doc 121/19 – CO safety in process plants
- GB/T 3864–2020 – Gas classification

## 4. Applications

- H<sub>2</sub>: Hydrogenation of oils, refinery hydroprocessing
- CO: Catalyst regeneration, carbonylation
- CH<sub>4</sub>: Reforming and synthesis gas generation

## 5. Packaging & Supply

Cylinder • Tube Skid • On-site Pipeline

## 6. Contact Information

[www.yigasgroup.com](http://www.yigasgroup.com)

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*This document provides reference specifications for YIGAS catalyst regeneration & hydrogenation gases. Customized supply and technical support are available upon request.*