



FIRST-MateSM

for Refineries

"Experience the Matheson Tri-Gas Commitment to Supply Chain Excellence"

Matheson Tri-Gas has the complex product profile and packaging options required to service the refinery requirements for regulatory compliance, safety, process monitoring, and finished product certification. Matheson Tri-Gas purifies its own C1 to C4 hydrocarbons to ensure the highest purity raw materials, and we have developed the Microshield series of cylinder preparations that ensure the long term stability of sub-ppm reduced sulfur components. Matheson Tri-Gas also applies state-of-the-art gas and liquid mixture engineering software that provides the optimal hydrocarbon mixtures needed by our customers.

The **Matheson Tri-Gas FIRST-MateSM** Program for Refineries will maximize your operating efficiencies by addressing the six key parameters that customers must have from their suppliers to achieve supply chain excellence:

- **Quality** products to ensure consistent reliability and safety
- **Products** specifically designed for Refinery applications
- **Safety** programs, products and design integrity to protect your personnel and work environment
- **Convenience** to place your orders and manage your cylinder inventory, with online access to Certs
- **Support** whenever you need it from our technical and service support teams
- **Delivery** options tailored to your operating needs



Quality Product Fleet

- Custom certs by application
- Active Six Sigma quality program



Products for Refinery Environmental Compliance

Refinery Process	Analyzer Used	Monitors	Zero Gas	Calibration Gas	Support/Span Gas
Fluid catalytic cracking unit catalyst regenerators	NDIR	Carbon Monoxide	Nitrogen	EPA Protocol Concentrations from: > or =to 1 ppm in N ₂	MTG Cal Mat 2: Concentrations from: > or =to 1 ppm in N ₂
Fuel Gas Combustion Devices	CEM GC/FPD/ECD	SO ₂ , O ₂ and H ₂ S	Nitrogen	NIST Traceable Standards for SO ₂ , O ₂ and H ₂ S	MTG CalMat 2
Claus Sulfur Recovery Unit	CEM/ TRS GC/PFPD	SO ₂ , O ₂ , CO ₂ , or Total Reduced Sulfur including H ₂ S, COS and CS ₂	Nitrogen	EPA Protocols and NIST Traceable Standards	MTG CalMat 2
Fired Heater Emissions Monitoring	CEM	NO _x , CO and CO ₂	Nitrogen	EPA Protocols	CalMat 2



**MATHESON
TRI•GAS**

ask. . .The Gas Professionals™



Products for Refinery Process Monitoring and Product Certification

Analyzer	Gas Type	Concentrations
Laboratory Process GC/FID Calibration	Refinery Gas Standards – Liquid and Gas	Any concentration and combination of Methane, Ethane, Ethene, Propane, Propene, 1,3 Butadiene, 1-Butene, i-Butene, Hydrogen and Nitrogen
Laboratory Process GC/FPD and GC/PFPD Calibration	Total Reduced Sulfur Mixtures	At sub-ppm concentrations in inert gas, and hydrocarbon gas and liquid phase balances. Microshield treated aluminum cylinders ensure stability of both gas and liquid phase standards. Available with N ₂ , He and H ₂ balances.
Laboratory Process GC/FID Calibration	BTEX Standards	From 1 ppm to 100 ppm
Laboratory Process GC/FID Calibration	Research Grade Hydrocarbons	Complete with impurities analysis



Product Packaging for Optimal Navigation



Liquid standard packaging options:

- Piston cylinders
- Low pressure cylinders with FLET/Dual port valves/and headpressure
- Disposable cylinders (including LP2.5, LP5, and LP10)
- High pressure cylinders with FLET/Dual port valves/and headpressure
- Six packs



Safety Programs for a Safe Voyage:

- **SAFETY-Mate:** A member of the Matheson Tri-Gas crew provides laboratory and process audits of cylinder safety to aid you with safe gas handling and delivery. Technical recommendations may be provided as well
- On-site safety training.
- Catalog listing safety equipment products
- Matheson Portables LEL and H₂S/CO/Methane/Air mixtures for your safety and industrial health programs. Many more standard and custom mixtures and pure gases are available.



Convenience via Online Resource

- Barcode Tracking for Managing Cylinder Status
- Enhanced Service Profile (ESP) Viewing and Ordering
- Self-Service Certs
- Cylinder Management
 - Onsite Cylinder Inventory
 - Cylinder Expiration Notification
 - Cylinder Movement History
 - Cylinder Pickup Scheduling



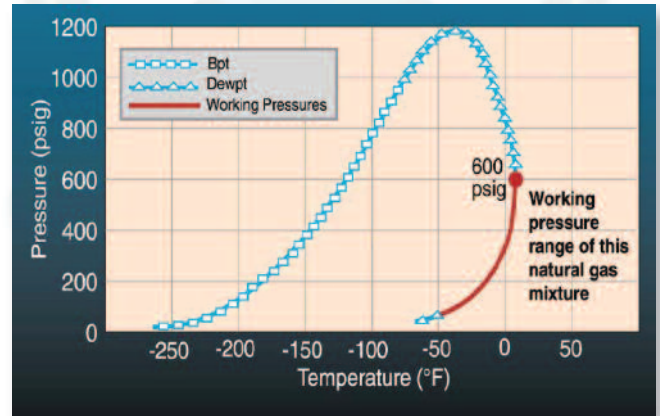
Support via the Matheson Tri-Gas Bulkhead of Technical and Service Support:

- Expert Mixture Phase Engineering using state-of-the-art software
- Specialty Gas Crew who understand refinery products and cylinder package options - (Product Manager, Technical Service Coordinator, Gas Operations Team, and Customer Service Team)
- Sales engineers provide personalized service before you have to "sound the alarm"
- Dedicated customer service representatives assigned to your account – ready with a friendly "ahoy there"
- Matheson Tri-Gas' Customer Arrangements systematize your products and cargo



Delivery to Your Port of Call:

- Local truck delivery if you are local to a Matheson Tri-Gas branch
- Inter-branch trucking system to minimize sourcing costs
- Customer service will expedite shipments in an urgent need situation



With the FIRST-MateSM Program for SUPPLY CHAIN Excellence, Matheson Tri-Gas is committed, without limitation, to be your "go to" company for maximizing profits and minimizing operating costs.

Thank you for your interest in our specialty gas and equipment products and we look forward to the opportunity to welcome you to our new FIRST-MateSM Program. For more information, please visit the Matheson Tri-Gas website @ www.mathesontrigas.com, or call our customer service center @ **800-416-2505** to have one of our sales representatives contact you directly.

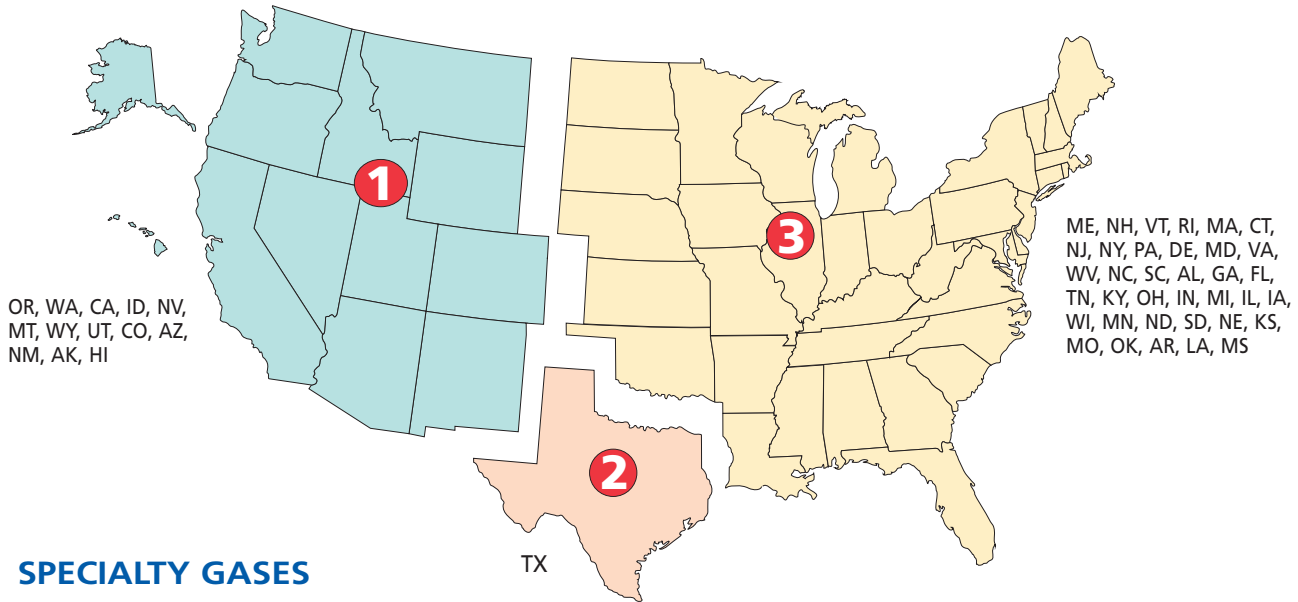




MATHESON TRI•GAS

CUSTOMER SERVICE CENTERS

To place an order, or to obtain more information, please contact our Customer Service Center for your area:



SPECIALTY GASES

1 6775 Central Avenue
Newark, CA 94560
Phone: 510-793-2559
Fax: 510-790-6241
Email: mtgnewark@matheson-trigas.com

2 3106 Pasadena Freeway
Pasadena, TX 77503
Phone: 713-534-8217
Fax: 713-534-8706
Email: mtgpasadena@matheson-trigas.com

San Antonio and Austin area:
2550 Kyle Crossing
Kyle, TX 78640
Phone: 512-262-2129
Fax: 512-262-4011
Email: mtgkyle@matheson-trigas.com

3 166 Keystone Drive
Montgomeryville, PA 18936
Phone: 800-416-2505
Fax: 215-619-0458
Email: info@matheson-trigas.com

INTERNATIONAL

6775 Central Avenue
Newark, CA 94560
Phone: 510-793-2559
Fax: 510-790-6241
Email: mtgexports@matheson-trigas.com

SPECIALTY GAS SYSTEMS AND EQUIPMENT

WORLDWIDE EQUIPMENT TECHNOLOGY CENTER
166 Keystone Drive
Montgomeryville, PA 18936
Phone: 800-828-4313
Fax: 215-619-0458
Email: info@matheson-trigas.com

24 HOUR EMERGENCY ASSISTANCE
CHEMTREC Phone: 800-424-9300

MATERIAL SAFETY DATA SHEETS (MSDS)
Data Sheets for gases can be downloaded from the Matheson Tri-Gas, Inc. Web site at www.mathesontrigas.com/msds

GENERAL INQUIRIES
info@matheson-trigas.com

Equipment Technology Center
166 Keystone Drive
Montgomeryville, PA 18936
Tel: 800.416.2505 Fax: 215.619.0458
Email: Info@matheson-trigas.com
www.mathesontrigas.com

Printed in USA R08/09 BR-105



MATHESON TRI•GAS

ask. . .The Gas Professionals™