



LAB SUPPLY BUYER'S GUIDE

#ENGINEEREDFOREXTRACTION



WHY CHOOSE SOLVENT DIRECT?

As passionate industry veterans, we've seen discount industrial supply standards hurt people, products and brand reputations over the years.

While our clients work tirelessly to bring safe and effective consumer goods to market, we believe it's our responsibility to choose people, product and ethical purity standards over profit.

We are committed to extraction-specific purity standards, rigorous quality control systems and logistical expertise to deliver quality, reliability, and customer service solutions that ensure our clients have access to safe lab supply at a fair price.

"Engineered for Extraction" isn't just a company slogan, it's our commitment to you and the industry we love.

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HOW TO BUY **EXTRACTION GASES.**

CERTIFICATE OF ANALYSIS (COA)

Verify the Certificates of Analysis (COA) consistently tests to the purity standard required by your application. 99.75%+ due to our rigorous purity standards and independent batch testing.

CERTIFICATE OF DECONTAMINATION (COD)

Verify your purity standard is consistent with our certified 3 phase cylinder decontamination (COD) performed on every cylinder, before every refill. Verify your COD at solventdirect.com/documents

VERIFY THE **CYLINDER IS SAFE**

We only use DOT cylinders, CGA compliant hardware, full length angle-cut dip tubes and we perform leak inspections on every cylinder, before every refill to ensure you have the safest and lab supply.

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HOW TO **VERIFY** YOUR SUPPORTING DOCUMENTATION

- 1) Visit our online document repository at solventdirect.com/documents.
- 2) Use the cylinder look up tool to search the cylinder serial number.
- 3) Download your Certificate of Analysis (COA) and Certificate of Decontamination (COD) to confirm purity standard.
- 4) Confirm your gas and cylinder are clean and safe for extraction!

STEP 1: IDENTIFY CYLINDER SERIAL NUMBER
Use the below guide to identify the cylinder serial number on the collar of your LP cylinder.

- 1 Canadian Transport ID
- 2 US DOT Transport ID
- 3 Serial Number
- 4 Manufacturer Number
- 5 Manufacturer Name
- 6 Test Month and Year
- 7 Tare Weight in KG
- 8 Tare Weight in Pounds
- 9 Water Capacity in Liters
- 10 Water Capacity in Pounds

STEP 2: ENTER CYLINDER SERIAL NUMBER
Enter your cylinder serial number into the below search bar to find the supporting Batch Certificate of Analysis (COA) and Certificate of Decontamination (COD) documentation.


Search

STEP 3: DOWNLOAD RESULTS BELOW
Find the corresponding batch COA and COD documentation attached below. Please click download to save the appropriate files to your device.



HOW TO ANALYZE YOUR CERTIFICATE OF ANALYSIS (COA)

- 1) Verify the purity standard of your gas is at least 99.5%+ on the COA.
- 2) Verify the serial number of your cylinder appears on the list of recorded serial numbers.
- 3) Verify the certification date and signor are current and valid.
- 4) Enjoy Solvent Direct Extraction Gases testing at over 99.76% pure.



CERTIFICATE OF ANALYSIS
N-BUTANE
INSTRUMENT PURITY

COMPONENT	WEIGHT%	MOLE%	LIQ VOL% (60 °F)
ETHANE	0.0000	0.0000	0.0000
PROPANE	0.0000	0.0000	0.0000
ISOBUTANE	0.1355	0.1355	0.1403
N-BUTANE	99.7440	99.7680	99.7468
NEOPENTANE	0.1197	0.0965	0.1129
ISOPENTANE	0.0000	0.0000	0.0000
N-PENTANE	0.0000	0.0000	0.0000

DENSITY AT 60 °F = 4.864 LB/GL
DENSITY AT 70 °F = 4.810 LB/GL
SPC GRAVITY AT 60 °F = 0.583 G/CC
CALC. PRES. AT 70 °F = 16.91 PSIG
CALC. PRES. AT 100 °F = 37.51 PSIG
ACT. PRES. AT 70 °F = 17.00 PSIG

MOISTURE CONTENT (PPM): < 3
TOTAL SULPHUR (PPM): < 1
RESIDUE (PPM): < 5
APPEARANCE: Clear & Colorless
ODOR: Pass

PREPARED BY: ... *[Signature]* DATE: 10-19-2021

(GUARRANTEED SPECIFICATION N-BUTANE 99.5%+)

Certified by: DAVID MEYER SO# 1060495

Cylinder Serial Number (s) Batch Number
004255QC 2021-27210-00_4039

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SOLVENTDIRECT.COM/DOCUMENTS



HOW TO READ YOUR CERTIFICATE OF DECONTAMINATION (COD)

1) Verify the decontamination and safety inspection SOP meets or exceeds FDA CFR and CGA cylinder cleaning standards for extraction service.

2) Verify the serial number of your cylinder appears on the list of recorded serial numbers.

3) Verify the signature, date and decontamination is valid and your cylinder is cleaned before every refill.

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[SOLVENTDIRECT.COM/DOCUMENTS](https://www.solventdirect.com/documents)



Certification of Decontamination LP239, LP5 and 1/2 Ton Cylinders Utilized for Instrument Purity Hydrocarbons

The following referenced vessel serial numbers have been processed in accordance with the Decontaminate Cleaning Guidelines set forth in SOP #KHC-11570 and based on Manufacturing Practices Regulations.

- 1) All referenced cylinders have been visually inspected for cylinder imperfections.
- 2) All referenced cylinder valves have been inspected for visual imperfections and proper safety relief device.
- 3) All referenced cylinders have been cleaned and decontaminated.

All vessels have been processed in accordance with CGA # C-10 proper cleaning procedures and the following guidelines reference to handling Hazardous Materials/Dangerous Goods in accordance with the requirements of 49CFR Part 172, Subpart I.

Cylinder Size	Serial Number	Date
7000	TR399886	RD892659
LP239	0004110C	511372D
	510164D	048460
	511144D	148315AX
	481031D	420942D
	0027430G	76600X
	071253UA	418055D
	0033970C	TR398847
	0010560C	665330UA
	0009000C	322445D
	660704UA	00685AV
	322954D	511297D
	028890	394557D
	005376	511191D
	620282UA	480385D
	0022910C	029017
TR377689	416673D	
TR399094	029177	

PREPARED BY: DAVID MEYER
Certified Hazmat & Hydrocarbon Technician

DATE: 10/25/21



HOW TO **VERIFY** YOUR CYLINDER IS SAFE

- 1) Verify your cylinder has a CGA compliant valve for liquid withdrawal.
- 2) Verify you have a full length, angle-cut diptube so you can use 100% of your product.
- 3) Verify your COD to confirm regular cylinder leak and damage inspections are performed by a certified technician before every refill.



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HOW TO **VERIFY** YOUR GAS IS CLEAN AND SAFE

- 1) Contact Solvent Direct for an emergency LP Test Bag.
- 2) Fill your LP Test Bag and schedule a compliant hazmat pickup from Solvent Direct.
- 3) Within 48 hours of receipt we will have 3rd party independent verification of your gas.
- 4) Operate your business safely with extraction gases Engineered Specifically for Extraction.

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HOW TO BUY **EXTRACTION** CHEMICALS.

CERTIFICATE OF ANALYSIS (COA)

Verify the purity of your chemical supply by confirming the COA meets or exceeds applicable regulations and standards. Use our simple QR system to scan your product packaging for product documentation.

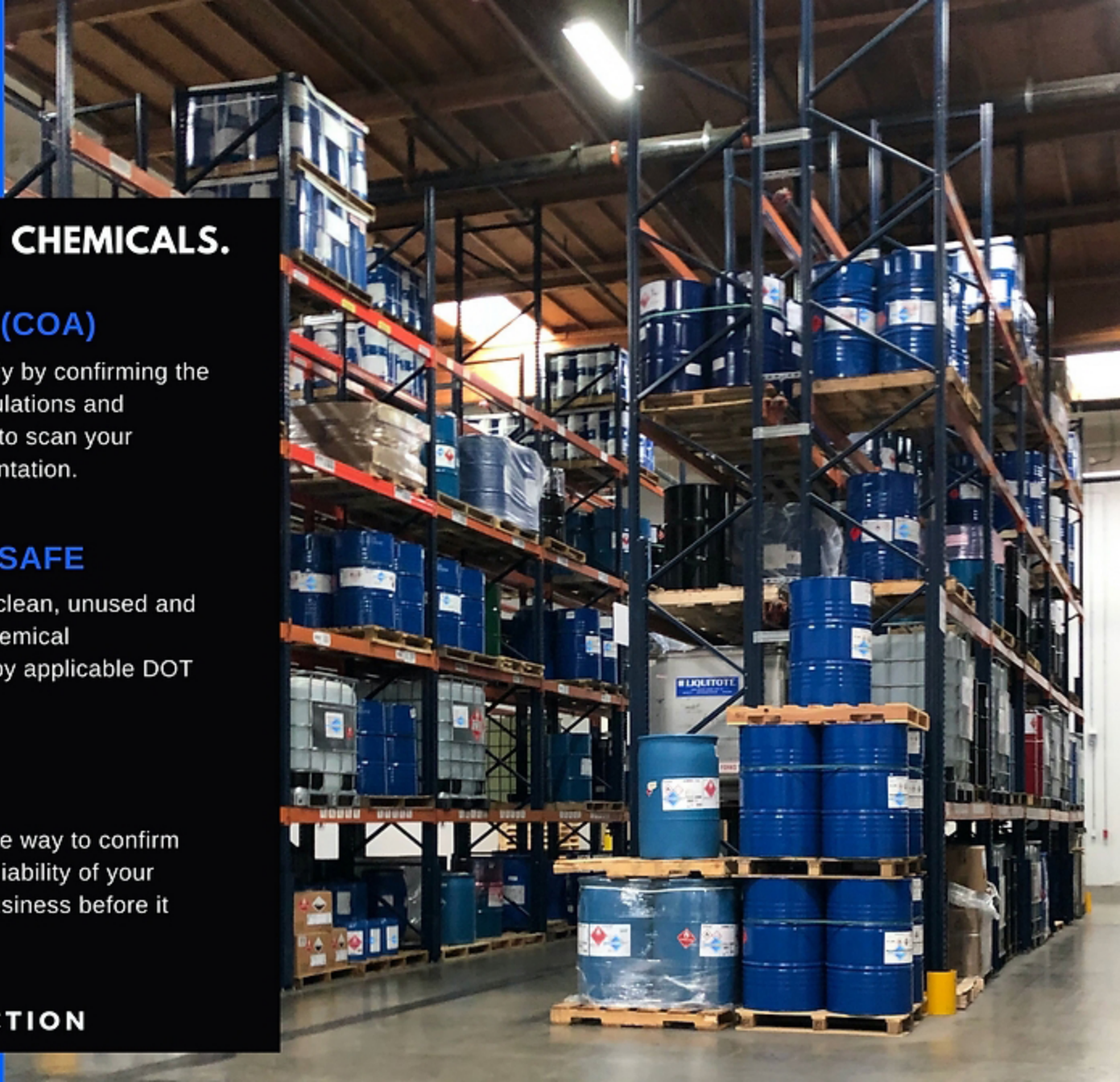
VERIFY THE PACKAGING IS **SAFE**

Verify your chemicals are delivered in clean, unused and compliant packaging that meet both chemical compatibility and purity standards set by applicable DOT regulations and purity standards.

AUDIT YOUR **VENDOR**

Regular supplier audits are an effective way to confirm the quality of your supply, reduce the liability of your products and the reputation of your business before it becomes a problem.


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HOW TO ANALYZE YOUR CERTIFICATE OF ANALYSIS (COA)

- 1) Verify the purity standard of your chemicals meet or exceed the standard of your application.
- 2) Verify the grade of the chemical is safe for extraction.
- 3) Verify the certification date and signor are current and valid.
- 4) Enjoy Solvent Direct food and beverage grade chemicals safe for extraction.



Certificate of Analysis
Ethanol 200 Proof (Dehydrated Alcohol)
CAS# 64-17-5

Customer: *XXXXX Direct Inc*
Date:
PO:
Lot: 2108271
Net weight: 55gal

Characteristics	Specifications	Results
Specific Gravity @ 60°F (15.56°C)	NMT 0.7962	0.7959
Proof	NLT 199.0	199.12
Ethyl Alcohol, % volume	NLT 99.5	99.3
Appearance	Bright and clear, free from suspended matter	Pass
Order	Characteristic ethanol	Pass
Water, wt. %	0.7 max	0.6
Color, Pt-Co	0.0	Pass
Chloride (mg/L)	1 max	0.02
Inorganic Sulfate (mg/kg)	1 max	0.0

*This product meets USP monograph specifications and is approved KOSHER - Pareve, NO USP Class 1, 2, 3 or other residual solvents are used in manufacturing or handling. Shelf life recommendation: Retest one (1) year from above date to confirm fitness for use. Ethanol 200 proof is Beverage Grade Alcohol.

Note: The information and recommendations of Solvent Direct, Inc. concerning this product are based upon laboratory tests and experience. To the best of our knowledge and belief these are true and accurate however Solvent Direct, Inc. assumes no obligation or liability for the information in this document. Since conditions of actual use are beyond our control, any recommendations or suggestions regarding merchantability and fitness for a particular purpose are made without warranty, expressed or implied.

V 1.3 Ethanol 200 Proof COA Template R.O. 01/25/2018

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HOW TO BUY FILTRATION MEDIA.

CERTIFICATE OF ANALYSIS (COA)

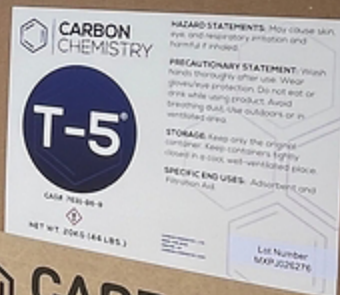
Verify the purity of your media supply by confirming the COA meets or exceeds applicable regulations and standards. Use our simple QR system to scan your product packaging for product documentation.

VERIFY THE SDS REQUIREMENTS

Carefully review the SDS to determine the Hazard Communication Standards for exposure controls and personal protection necessary for the safe handling and storage of your media.

AUDIT YOUR VENDOR

Regular supplier audits are an effective way to examine the quality of your supply and the risk it presents to your business before it becomes a problem.





HOW TO BUY DRY ICE.

VERIFY THE SOURCE MATERIAL(COA)

Verify the purity of your CO2 feedstock inputs by confirming the COA meets or exceeds applicable regulations and standards for your application .

VERIFY THE SDS REQUIREMENTS

Carefully review the SDS to determine the Hazard Communication Standards for exposure controls and personal protection necessary for the safe handling and storage of your dry ice.

VERIFY CONSISTENCY OF YOUR SUPPLY

One of the most important things to consider when purchasing dry ice is the reliability and consistency of your supply. With regular fluctuations in CO2 feedstock shortages impacting the availability of dry ice supply, supplier consistency is key.

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LAB GAS, CHEMICALS, MEDIA + DRY ICE

1-833-PURE-GAS

CALL OR TXT FOR QUOTE





LIMITATION OF LIABILITY

COMPLIANCE/SDS. Buyer, its employees and agents shall comply with all applicable federal, state and local laws regarding the safe handling, transportation and use of the Products, including without limitation under the Emergency Planning and Community Right-To-Know Act and the Occupational Safety and Health Act. Buyer acknowledges and agrees that Seller has provided Buyer with access to all relevant Safety Data Sheets (SDS). Additional SDSs and copies are available: (i) at the local Solvent Direct branch; (ii) by calling 1-833-Pure-Gas; or (iii) by visiting our terms and conditions page online at www.solventdirect.com/termsandconditions. Buyer understands that the Products must not be used without first consulting the SDS. Buyer will familiarize itself with and instruct its employees regarding all information and precautions disclosed in the safety and health information, including without limitation any SDS, transmitted to Buyer by Seller or otherwise available to Buyer from Seller at any other time. **TECHNICAL ASSISTANCE.** Unless otherwise expressly agreed: (i) any technical advice provided by Seller with respect to the use of Products or Services furnished to Buyer shall be without charge; (ii) Buyer shall have sole responsibility for selection and specification of the Products or Services appropriate for the end use of such Products or Services; and (iii) SELLER MAKES NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AND ASSUMES NO OBLIGATION OR LIABILITY FOR ANY TECHNICAL ADVICE, OR FOR ANY RESULTS OCCURRING AS A RESULT OF THE APPLICATION OF SUCH ADVICE. Examples of such complimentary technical advice include, without limitation, brochures, literature, website or catalog descriptions, SDSs, free on-line training resources, and similar information materials. Learn more about the terms and conditions of Solvent Direct Inc by visiting www.solventdirect.com/termsandconditions