



**RCI Labscan**  
GROUP

# Chemicals for Liquid Chromatography techniques



**Quality excellence is at the heart of RCI Labscan strategy.**



**Reliability based on efficient and standardized processes.**



**Consistent quality to ensure reliable analyses.**

**RCI Labscan**  
RCI Labscan Limited



The LC reagents from RCI Labscan delivers and match yours all high standards, expectations and providing reliable results. Firmly backed by our commitment to innovation Research and Development, we now provide 68 availability of products.

## HPLC Grade

- For analytical and preparative separation.
- Mobile phase in HPLC or LC technique including gel permeation chromatography
- Suitable for various types of detector
- Use in the wavelength between 190–230 nm (Far UV region)

## Gradient Grade

- For analytical and preparative separation.
- Mobile phase for gradient technique.
- Low baseline drift and low levels of impurities.

## LC-MS Grade

- For analytical and preparative separation.
- Suitable for LC-MS analytical technique.
- Low level of trace metals and filtered through 0.1  $\mu\text{m}$  filters.
- Low fluorescence and high UV transmittance.
- Low acidity & alkalinity, and low particulates to ensure minimal interference.

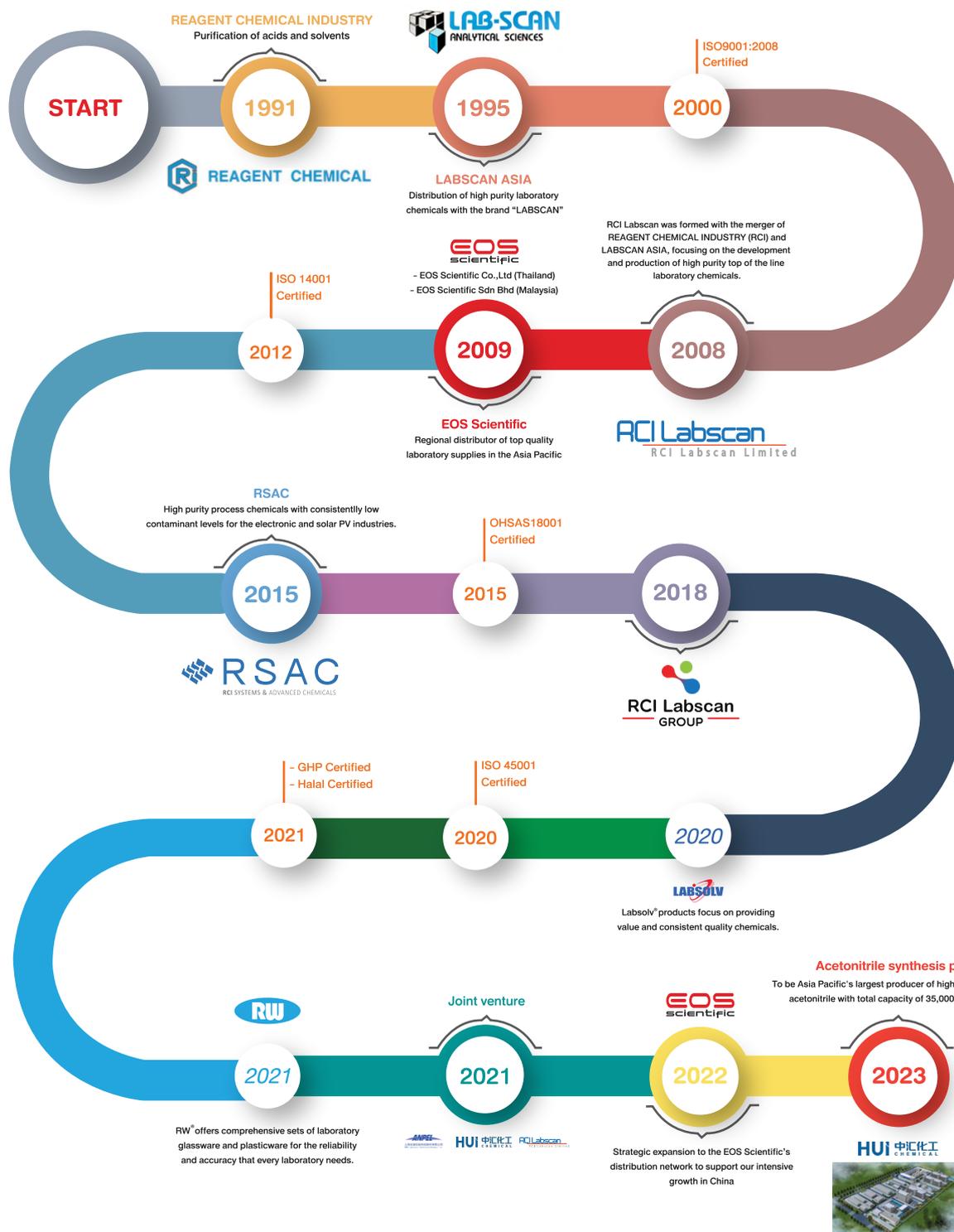
## ULC-MS Grade

- For analytical and preparative separation.
- Designed to meet the high requirements of the updated chemical analysis equipment technologies.
- Providing clear and reliable results in positive and negative modes.
- Suitable for ULC-MS analytical technique.
- It has high purity solvent with low level of trace metals and filtered through at least 0.1  $\mu\text{m}$  filters.
- Low fluorescence and high UV transmittance.
- Low acidity & alkalinity, and low particulates to ensure minimal interference.

# A timeline of our RCI Labscan group history

## We're an industry leader

Established in 1991, RCI Labscan Group is a conglomerate of companies, comprising of RCI Labscan Limited, EOS Scientific, and RCI Systems & Advanced Chemicals. We manufacture and distribute high-purity chemicals for businesses in a wide variety of industries in over 20 countries. In doing so, our company has grown to become one of Asia Pacific's leading high purity chemicals supplier.



## COMPANY PROFILE - RCI Labscan Limited

### Company History

#### RCI LABSCAN Limited

was established in 2008, from the acquisition and merger of Labscan Asia Co., Ltd and Reagent Chemical Industry Co., Ltd. The intensive investment also included the acquisition of Technology and Capability from USA, Europe (UK and Germany), and Asia. The company is already the preferred OEM supplier to a number of global multinational companies. With latest validity equipment, our Quality Control Laboratory is recognized as the Final Quality Testing Lab by some of its Multi-Nation Customer (MNC).

Our products are made available to customers under the brand RCI Labscan for chemical products with various laboratories as well as industrial applications.

With world-class technology and expertise, a strong commitment to excellence in quality, service and value to customers, RCI Labscan has grown rapidly to become one of the leading manufacturers and distributors of purified reagents in Asia.

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#### Labscan Asia Co., LTD. (Established in 1995)

- Joint venture with VS General Chem Group and Labscan Ireland Ltd.
- Production of HIGH PURITY Laboratory Reagents.
- Strong in OEM business and Research/Laboratories in Asia.

#### Reagent Chemical Co., LTD. (Established in 1991)

- Plant designed to produce Electronic Grade and Laboratory Grade ACIDS and SOLVENTS.
- Strong in OEM and Electronics Industry.



# RCI LABSCAN LABEL

Our Label is designed to provide the necessary up to date information and is in compliance with the GHS system (Globally Harmonized System of Classification and Labelling of Chemicals)

**Specifications:**

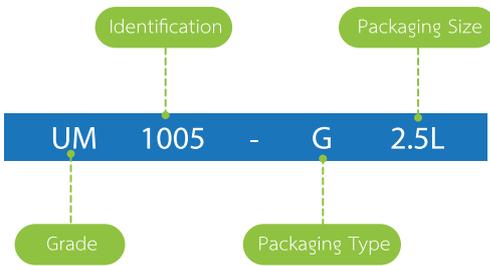
|   |                            |          |
|---|----------------------------|----------|
| Assay (by GC)   | 99.97%                     | min.     |
| Color (APHA)  | 5                          | max.     |
| Water (by Coulometry)   | 0.01%                      | max.     |
| Acidity (mEq/g)   | 0.0002                     | max.     |
| Alkalinity (mEq/g)  | 0.0001                     | max.     |
| Residue on Evaporation  | 0.0001%                    | max.     |
| UV Transmission Levels (%T)   |                            |          |
| 230 nm  | 99%                        | min.     |
| 215 nm  | 98%                        | min.     |
| 200 nm  | 97%                        | min.     |
| 195 nm  | 85%                        | min.     |
| 190 nm  | 30%                        | min.     |
| Gradient Specification at 210 nm  | 1.0                        | mAU max. |
| at 234 nm   | 0.3                        | mAU max. |
| Fluorescence (as quinine) at 254 nm   | 0.3                        | ppb max. |
| at 365 nm   | 5                          | ppb max. |
| Aluminium (Al)  | 5                          | ppb max. |
| Barium (Ba)   | 10                         | ppb max. |
| Bismuth (Bi)  | 5                          | ppb max. |
| Cadmium (Cd)  | 5                          | ppb max. |
| Calcium (Ca)  | 20                         | ppb max. |
| Chromium (Cr)   | 5                          | ppb max. |
| Cobalt (Co)   | 5                          | ppb max. |
| Copper (Cu)   | 10                         | ppb max. |
| Iron (Fe)   | 10                         | ppb max. |
| Lead (Pb)   | 5                          | ppb max. |
| Lithium (Li)  | 10                         | ppb max. |
| Magnesium (Mg)  | 5                          | ppb max. |
| Manganese (Mn)  | 5                          | ppb max. |
| Molybdenum (Mo)   | 10                         | ppb max. |
| Nickel (Ni)   | 5                          | ppb max. |
| Potassium (K)   | 5                          | ppb max. |
| Sodium (Na)   | 20                         | ppb max. |
| Strontium (Sr)  | 10                         | ppb max. |
| Tin (Sn)  | 5                          | ppb max. |
| Zinc (Zn)   | 5                          | ppb max. |
| Suitable for LC -MS (ESI positive as Reserpine)                             | 5                          | ppb max. |
| Suitable for LC -MS (ESI negative as Reserpine)                             | 20                         | ppb max. |
| Appearance  | Clear and colorless liquid |          |
| Identity (IR)   | Passes test                |          |
| Product passed through 0.1 micron final filter and bottled under inert gas. |                            |          |

**Product Name:** ACETONITRILE  
**Product Code:** UM1005-G2.5L  
**Product Grade:** ULC -MS  
**Packaging Size:** 2.5 L  
**UN Number:** UN 1648

**Hazard Statement and Precautionary Information:**  
**Hazard Statements:** Highly flammable liquid and vapour. Harmful if swallowed, in contact with skin or if inhaled. Causes serious eye irritation.  
**Precautionary Statements:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use nonparking tools. Take action to prevent static discharges. Avoid breathing fume/gas/mist/vapours/spray. Wash hand thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Get medical help. IF ON SKIN (or hair): Wash with plenty of water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse mouth. If eye irritation persists: Get medical help. Take off contaminated clothing and wash it before reuse.  
**Recommended storage condition:** Keep container tightly closed in a dry, cool and well-ventilated place. Stored away from heat and direct sunlight.

**Signal Word:** DANGER  
**Hazard Pictograms:** GHS02 (Flammable liquid), GHS05 (Corrosive), GHS09 (Hazardous for the environment)

PRODUCT CODE GUIDE  
 EXAMPLE: UM1005-G2.5L



## Accreditations



ISO 9001



ISO 14001



ISO 45001



GHP Certificate



Halal

## PACKAGING

“Packaging for safety, convenience and product quality”

RCI Labscan products are available in a comprehensive range of packaging designed for safety, environmental protection, convenient handling and storage. All packaging are guaranteed to preserve the integrity of our products.



### Amber Glass Bottles:

Suitable for photosensitive Chemicals.

We offer 500ml., 1 Litre, 2.5 Litre and 4 Litre size  
500 ml. and 1 Litre: 6 bottles per box  
2.5 Litre and 4 Litre: 4 bottles per box



| PRODUCT NAME | CODE | PAGE |
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|--------------|------|------|

### ULC-MS GRADE

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## Acetonitrile

|                    |           |               |          |
|--------------------|-----------|---------------|----------|
| CH <sub>3</sub> CN | FW. 41.05 | Melting Point | -45.7 °C |
| CAS-No.            | 75-05-8   | Boiling Point | 81.6 °C  |
| Density 1 L        | 0.786 Kg. |               |          |

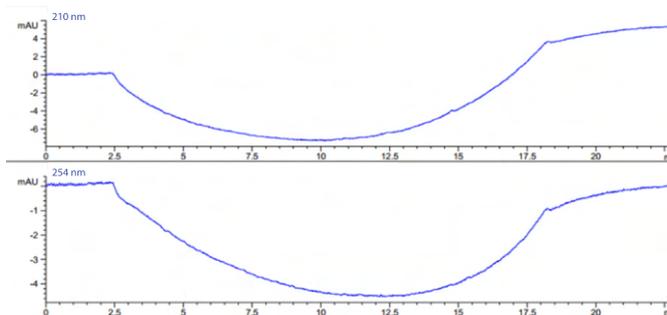


### Acetonitrile, ULC-MS UM1005

#### Specifications

|                             |                            |          |  |    |          |
|-----------------------------|----------------------------|----------|--|----|----------|
| Assay (by GC.)              | 99.97%                     | min.     | Iron (Fe)                                      | 10 | ppb max. |
| Appearance                  | Clear and colorless liquid |          | Lead (Pb)                                      | 5  | ppb max. |
| Identity (IR)               | Passes test                |          | Lithium (Li)                                   | 10 | ppb max. |
| Color (APHA)                | 5                          | max.     | Magnesium (Mg)                                 | 5  | ppb max. |
| Water (by Coulometry)       | 0.01%                      | max.     | Manganese (Mn)                                 | 5  | ppb max. |
| Acidity (mEq./g.)           | 0.0002                     | max.     | Molybdenum (Mo)                                | 10 | ppb max. |
| Alkalinity (mEq./g.)        | 0.0001                     | max.     | Nickel (Ni)                                    | 5  | ppb max. |
| Residue on Evaporation      | 0.0001%                    | max.     | Potassium (K)                                  | 5  | ppb max. |
| UV Transmission Levels (%T) |                            |          | Silver (Ag)                                    | 10 | ppb max. |
| 230 nm                      | 99%                        | min.     | Sodium (Na)                                    | 20 | ppb max. |
| 215 nm                      | 98%                        | min.     | Strontium (Sr)                                 | 10 | ppb max. |
| 200 nm                      | 97%                        | min.     | Tin (Sn)                                       | 5  | ppb max. |
| 195 nm                      | 85%                        | min.     | Zinc (Zn)                                      | 5  | ppb max. |
| 190 nm                      | 30%                        | min.     | Suitable for LC-MS (ESI positive as Reserpine) | 5  | ppb max. |
| Gradient Specification      |                            |          | Suitable for LC-MS (ESI negative as Reserpine) | 20 | ppb max. |
| at 210 nm                   | 1.0                        | mAU max. |  |    |          |
| at 254 nm                   | 0.3                        | mAU max. |  |    |          |
| Fluorescence (as quinine)   |                            |          |  |    |          |
| at 254 nm                   | 0.3                        | ppb max. |  |    |          |
| at 365 nm                   | 0.3                        | ppb max. |  |    |          |
| Aluminium (Al)              | 5                          | ppb max. |  |    |          |
| Barium (Ba)                 | 5                          | ppb max. |  |    |          |
| Bismuth (Bi)                | 10                         | ppb max. |  |    |          |
| Cadmium (Cd)                | 5                          | ppb max. |  |    |          |
| Calcium (Ca)                | 20                         | ppb max. |  |    |          |
| Chromium (Cr)               | 5                          | ppb max. |  |    |          |
| Cobalt (Co)                 | 5                          | ppb max. |  |    |          |
| Copper (Cu)                 | 5                          | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    | Cat No.      | Package | Size      |
|---------------|---------|---------|--------------|---------|-----------|
| UM1005-G500ML | Glass   | 500 ML  | UM1005-G2.5L | Glass   | 2.5 Litre |
| UM1005-G1L    | Glass   | 1 Litre | UM1005-G4L   | Glass   | 4 Litre   |

## Methanol

|                    |           |
|--------------------|-----------|
| CH <sub>3</sub> OH | FW. 32.04 |
| CAS-No.            | 67-56-1   |
| Density 1 L        | 0.790 Kg. |

|               |         |
|---------------|---------|
| Melting Point | -98 °C  |
| Boiling Point | 64.5 °C |



### Methanol, ULC-MS

UM1115

#### Specifications

|                             |                            |      |  |    |          |
|-----------------------------|----------------------------|------|--|----|----------|
| Assay (by GC.)              | 99.98%                     | min. | Magnesium (Mg)                                 | 5  | ppb max. |
| Appearance                  | Clear and colorless liquid |      | Manganese (Mn)                                 | 5  | ppb max. |
| Identity (IR)               | Passes test                |      | Molybdenum (Mo)                                | 10 | ppb max. |
| Color (APHA)                | 5                          | max. | Nickel (Ni)                                    | 5  | ppb max. |
| Water (by Coulometry)       | 0.02%                      | max. | Potassium (K)                                  | 5  | ppb max. |
| Acidity (mEq./g.)           | 0.0002                     | max. | Silver (Ag)                                    | 10 | ppb max. |
| Alkalinity (mEq./g.)        | 0.0001                     | max. | Sodium (Na)                                    | 20 | ppb max. |
| Residue on Evaporation      | 0.0001%                    | max. | Strontium (Sr)                                 | 10 | ppb max. |
| Acetone (GC.)               | 0.001%                     | max. | Tin (Sn)                                       | 5  | ppb max. |
| UV Transmission Levels (%T) |                            |      | Zinc (Zn)                                      | 5  | ppb max. |
| 250 nm                      | 99%                        | min. | Suitable for LC-MS (ESI positive as Reserpine) | 5  | ppb max. |
| 240 nm                      | 98%                        | min. | Suitable for LC-MS (ESI negative as Reserpine) | 20 | ppb max. |
| 230 nm                      | 90%                        | min. |  |    |          |
| 220 nm                      | 75%                        | min. |  |    |          |
| 210 nm                      | 65%                        | min. |  |    |          |

#### Gradient Specification

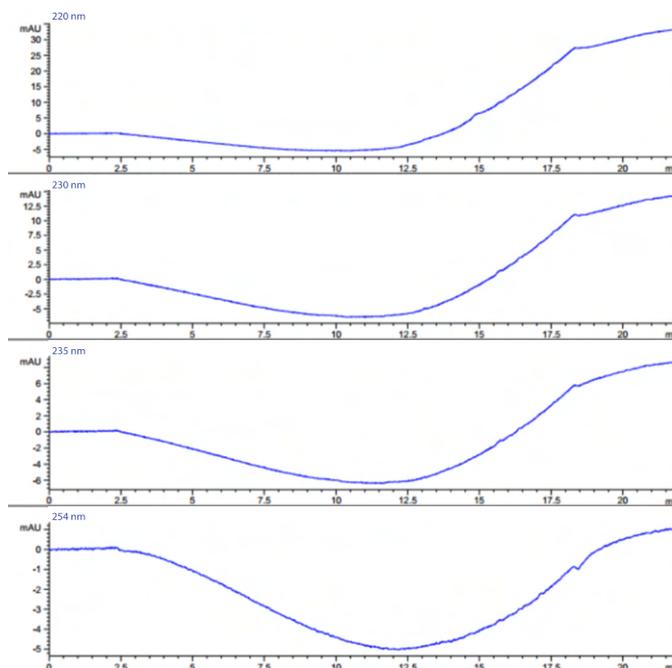
|           |     |          |
|-----------|-----|----------|
| at 220 nm | 4.0 | mAU max. |
| at 230 nm | 2.0 | mAU max. |
| at 235 nm | 2.0 | mAU max. |
| at 254 nm | 1.0 | mAU max. |

#### Fluorescence (as quinine)

|           |     |          |
|-----------|-----|----------|
| at 254 nm | 0.3 | ppb max. |
| at 365 nm | 0.3 | ppb max. |

|                |    |          |
|----------------|----|----------|
| Aluminium (Al) | 5  | ppb max. |
| Barium (Ba)    | 5  | ppb max. |
| Bismuth (Bi)   | 10 | ppb max. |
| Cadmium (Cd)   | 5  | ppb max. |
| Calcium (Ca)   | 20 | ppb max. |
| Chromium (Cr)  | 5  | ppb max. |
| Cobalt (Co)    | 5  | ppb max. |
| Copper (Cu)    | 5  | ppb max. |
| Iron (Fe)      | 10 | ppb max. |
| Lead (Pb)      | 5  | ppb max. |
| Lithium (Li)   | 10 | ppb max. |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| UM1115-G500ML | Glass   | 500 ML  |
| UM1115-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| UM1115-G2.5L | Glass   | 2.5 Litre |
| UM1115-G4L   | Glass   | 4 Litre   |

## Propan-2-ol

|                                      |           |               |          |
|--------------------------------------|-----------|---------------|----------|
| (CH <sub>3</sub> ) <sub>2</sub> CHOH | FW. 60.10 | Melting Point | -89.5 °C |
| CAS-No.                              | 67-63-0   | Boiling Point | 82.4 °C  |
| Density 1 L                          | 0.786 Kg. |               |          |



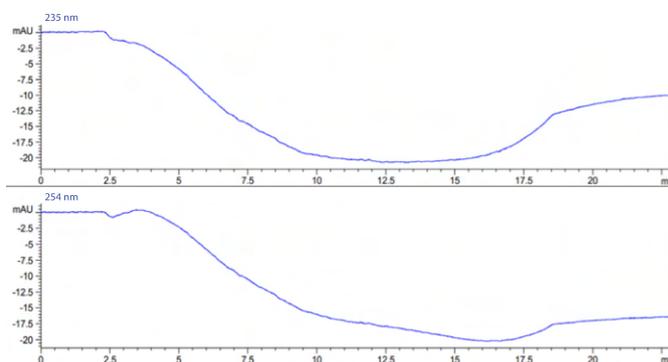
### Propan-2-ol, ULC-MS

UM1162

#### Specifications

|   |                            |          |  |    |          |
|---|----------------------------|----------|--|----|----------|
| Assay (by GC.)  | 99.95%                     | min.     | Copper (Cu)                                    | 5  | ppb max. |
| Appearance  | Clear and colorless liquid |          | Iron (Fe)                                      | 10 | ppb max. |
| Identity (IR)   | Passes test                |          | Lead (Pb)                                      | 5  | ppb max. |
| Color (APHA)  | 5                          | max.     | Lithium (Li)                                   | 10 | ppb max. |
| Water (by Coulometry)                                 | 0.03%                      | max.     | Magnesium (Mg)                                 | 5  | ppb max. |
| Acidity (mEq./g.)                                     | 0.0002                     | max.     | Manganese (Mn)                                 | 5  | ppb max. |
| Alkalinity (mEq./g.)                                  | 0.0001                     | max.     | Molybdenum (Mo)                                | 10 | ppb max. |
| Residue on Evaporation                                | 0.0001%                    | max.     | Nickel (Ni)                                    | 5  | ppb max. |
| Carbonyl Compounds<br>(as propionaldehyde or acetone) | 0.002%                     | max.     | Potassium (K)                                  | 5  | ppb max. |
| Solubility in water                                   | Passes test                |          | Silver (Ag)                                    | 10 | ppb max. |
| UV Transmission Levels (%T)                           |                            |          | Sodium (Na)                                    | 20 | ppb max. |
| 250 nm  | 99%                        | min.     | Strontium (Sr)                                 | 10 | ppb max. |
| 240 nm  | 98%                        | min.     | Tin (Sn)                                       | 5  | ppb max. |
| 230 nm  | 90%                        | min.     | Zinc (Zn)                                      | 5  | ppb max. |
| 220 nm  | 80%                        | min.     | Suitable for LC-MS (ESI positive as Reserpine) | 5  | ppb max. |
| 210 nm  | 40%                        | min.     | Suitable for LC-MS (ESI negative as Reserpine) | 20 | ppb max. |
| Gradient Specification                                |                            |          |  |    |          |
| at 235 nm   | 1.0                        | mAU max. |  |    |          |
| at 254 nm   | 1.0                        | mAU max. |  |    |          |
| Fluorescence (as quinine)                             |                            |          |  |    |          |
| at 254 nm   | 0.3                        | ppb max. |  |    |          |
| at 365 nm   | 0.3                        | ppb max. |  |    |          |
| Aluminium (Al)  | 5                          | ppb max. |  |    |          |
| Barium (Ba)   | 5                          | ppb max. |  |    |          |
| Bismuth (Bi)  | 10                         | ppb max. |  |    |          |
| Cadmium (Cd)  | 5                          | ppb max. |  |    |          |
| Calcium (Ca)  | 20                         | ppb max. |  |    |          |
| Chromium (Cr)   | 5                          | ppb max. |  |    |          |
| Cobalt (Co)   | 5                          | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    | Cat No.      | Package | Size      |
|---------------|---------|---------|--------------|---------|-----------|
| UM1162-G500ML | Glass   | 500 ML  | UM1162-G2.5L | Glass   | 2.5 Litre |
| UM1162-G1L    | Glass   | 1 Litre | UM1162-G4L   | Glass   | 4 Litre   |

## Tetrahydrofuran

|                                 |           |
|---------------------------------|-----------|
| C <sub>4</sub> H <sub>8</sub> O | FW. 72.11 |
| CAS-No.                         | 109-99-9  |
| Density 1 L                     | 0.890 Kg. |

|               |           |
|---------------|-----------|
| Melting Point | -108.5 °C |
| Boiling Point | 65-66 °C  |



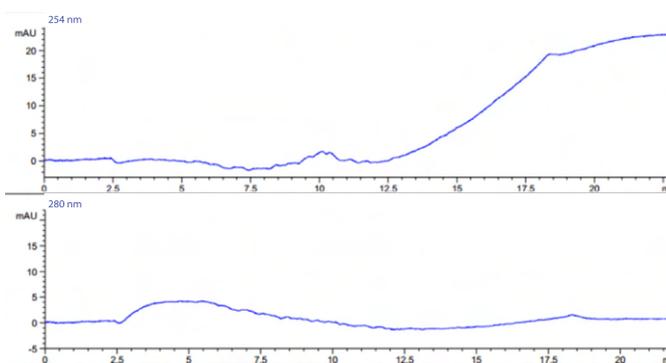
### Tetrahydrofuran, ULC-MS

UM1200

#### Specifications

|   |                            |          |  |    |          |
|---|----------------------------|----------|--|----|----------|
| Assay (by GC.)  | 99.95%                     | min.     | Cobalt (Co)                                    | 10 | ppb max. |
| Appearance  | Clear and colorless liquid |          | Copper (Cu)                                    | 10 | ppb max. |
| Identity (IR)   | Passes test                |          | Iron (Fe)                                      | 20 | ppb max. |
| Color (APHA)  | 5                          | max.     | Lead (Pb)                                      | 20 | ppb max. |
| Water (by Coulometry)   | 0.02%                      | max.     | Lithium (Li)                                   | 20 | ppb max. |
| Acidity (mEq./g.)   | 0.0002                     | max.     | Magnesium (Mg)                                 | 30 | ppb max. |
| Alkalinity (mEq./g.)  | 0.0002                     | max.     | Manganese (Mn)                                 | 10 | ppb max. |
| Residue on Evaporation  | 0.0001%                    | max.     | Molybdenum (Mo)                                | 20 | ppb max. |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ),<br>(at the time of manufacturing) | 0.005%                     | max.     | Nickel (Ni)                                    | 10 | ppb max. |
| UV Transmission Levels (%T)   |                            |          | Potassium (K)                                  | 30 | ppb max. |
| 280 nm  | 99%                        | min.     | Silver (Ag)                                    | 20 | ppb max. |
| 270 nm  | 88%                        | min.     | Sodium (Na)                                    | 50 | ppb max. |
| 245 nm  | 55%                        | min.     | Strontium (Sr)                                 | 20 | ppb max. |
| 235 nm  | 40%                        | min.     | Tin (Sn)                                       | 20 | ppb max. |
| 215 nm  | 30%                        | min.     | Zinc (Zn)                                      | 20 | ppb max. |
| Gradient Specification  |                            |          | Suitable for LC-MS (ESI positive as Reserpine) | 20 | ppb max. |
| at 254 nm   | 10                         | MAU max. |  |    |          |
| at 280 nm   | 3                          | MAU max. |  |    |          |
| Fluorescence (s quinine)  |                            |          |  |    |          |
| at 254 nm   | 1.0                        | ppb max. |  |    |          |
| at 365 nm   | 1.0                        | ppb max. |  |    |          |
| Aluminium (Al)  | 10                         | ppb max. |  |    |          |
| Barium (Ba)   | 10                         | ppb max. |  |    |          |
| Bismuth (Bi)  | 20                         | ppb max. |  |    |          |
| Cadmium (Cd)  | 20                         | ppb max. |  |    |          |
| Calcium (Ca)  | 30                         | ppb max. |  |    |          |
| Chromium (Cr)   | 10                         | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| UM1200-G500ML | Glass   | 500 ML  |
| UM1200-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| UM1200-G2.5L | Glass   | 2.5 Litre |
| UM1200-G4L   | Glass   | 4 Litre   |

## Water

|                  |           |               |        |
|------------------|-----------|---------------|--------|
| H <sub>2</sub> O | FW. 18.02 | Melting Point | 0 °C   |
| CAS-No.          | 7732-18-5 | Boiling Point | 100 °C |
| Density 1 L      | 1.000 Kg. |               |        |

### Water, ULC-MS

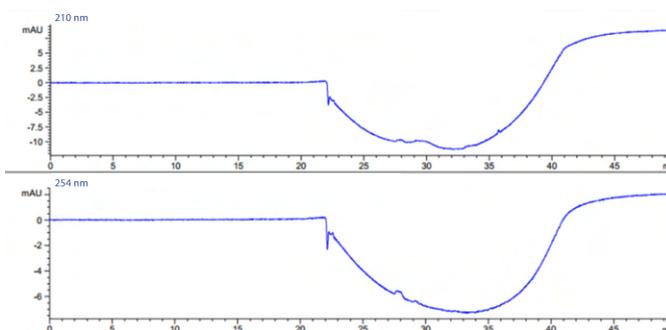
UM1210

#### Specifications

|   |                            |          |
|---|----------------------------|----------|
| Appearance  | Clear and colorless liquid |          |
| Color (APHA)  | 5                          | max.     |
| Resistivity (at the time of manufacturing), MohmXcm     | 18                         | min.     |
| Acidity (as Acetic acid)                                | 0.0002%                    | max.     |
| Alkalinity (as Ammonia), (at the time of manufacturing) | 0.0002%                    | max.     |
| Residue on Evaporation                                  | 0.0001%                    | max.     |
| Chloride (Cl)   | 10                         | ppb max. |
| Fluoride (F)  | 10                         | ppb max. |
| Nitrate (NO <sub>3</sub> )                              | 10                         | ppb max. |
| Phosphate (PO <sub>4</sub> )                            | 10                         | ppb max. |
| Sulfate (SO <sub>4</sub> )                              | 10                         | ppb max. |
| UV Transmission Levels (%T)                             |                            |          |
| 230 nm  | 99%                        | min.     |
| 200 nm  | 95%                        | min.     |
| Gradient Specification                                  |                            |          |
| at 210 nm   | 2.0                        | mAU max. |
| at 254 nm   | 0.5                        | mAU max. |
| Fluorescence (as quinine)                               |                            |          |
| at 254 nm   | 0.3                        | ppb max. |
| at 365 nm   | 0.3                        | ppb max. |
| Aluminium (Al)  | 5                          | ppb max. |
| Barium (Ba)   | 5                          | ppb max. |
| Bismuth (Bi)  | 10                         | ppb max. |
| Cadmium (Cd)  | 5                          | ppb max. |
| Calcium (Ca)  | 10                         | ppb max. |
| Chromium (Cr)   | 5                          | ppb max. |
| Cobalt (Co)   | 5                          | ppb max. |

|  |    |          |
|--|----|----------|
| Copper (Cu)                                    | 5  | ppb max. |
| Iron (Fe)                                      | 10 | ppb max. |
| Lead (Pb)                                      | 5  | ppb max. |
| Lithium (Li)                                   | 10 | ppb max. |
| Magnesium (Mg)                                 | 5  | ppb max. |
| Manganese (Mn)                                 | 5  | ppb max. |
| Molybdenum (Mo)                                | 10 | ppb max. |
| Nickel (Ni)                                    | 5  | ppb max. |
| Potassium (K)                                  | 5  | ppb max. |
| Silver (Ag)                                    | 10 | ppb max. |
| Sodium (Na)                                    | 20 | ppb max. |
| Strontium (Sr)                                 | 10 | ppb max. |
| Tin (Sn)                                       | 5  | ppb max. |
| Zinc (Zn)                                      | 5  | ppb max. |
| TOC  | 10 | ppb max. |
| Suitable for LC-MS (ESI positive as Reserpine) | 5  | ppb max. |
| Suitable for LC-MS (ESI negative as Reserpine) | 20 | ppb max. |

Product passed through 0.1 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| UM1210-G500ML | Glass   | 500 ML  |
| UM1210-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| UM1210-G2.5L | Glass   | 2.5 Litre |
| UM1210-G4L   | Glass   | 4 Litre   |

## Acetic Acid

|                      |           |               |        |
|----------------------|-----------|---------------|--------|
| CH <sub>3</sub> COOH | FW. 60.05 | Melting Point | 17 °C  |
| CAS-No.              | 64-19-7   | Boiling Point | 118 °C |
| Density 1 L          | 1.05 Kg.  |               |        |



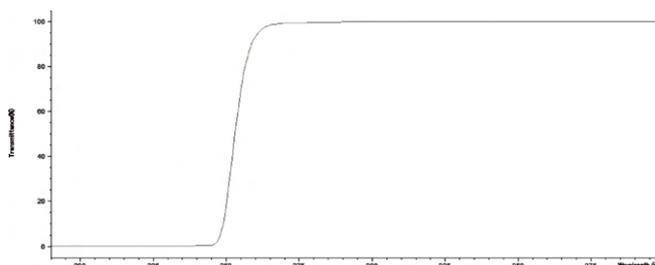
### Acetic Acid, Glacial LC-MS

LM1002

#### Specifications

|                                  |                            |          |                             |    |          |
|----------------------------------|----------------------------|----------|-----------------------------|----|----------|
| Assay (by acidimetry)            | 99.97%                     | min.     | Iron (Fe)                   | 20 | ppb max. |
| Appearance                       | Clear and colorless liquid |          | Lead (Pb)                   | 10 | ppb max. |
| Water (by Coulometry)            | 0.2%                       | max.     | Magnesium (Mg)              | 50 | ppb max. |
| Color (APHA)                     | 5                          | max.     | Potassium (K)               | 50 | ppb max. |
| Residue on Evaporation           | 0.0005%                    | max.     | Sodium (Na)                 | 50 | ppb max. |
| Chloride (Cl)                    | 0.2                        | ppm max. | Suitable for LC-MS          | 2  | ppb max. |
| Sulfate (SO <sub>4</sub> )       | 0.5                        | ppm max. | (ESI positive as Reserpine) |    | ppb max. |
| Substances reducing dichromate   | Passes test                |          |                             |    |          |
| Substances reducing permanganate | Passes test                |          |                             |    |          |
| UV Transmission Levels (%T)      |                            |          |                             |    |          |
| 300 nm                           | 98%                        | min.     |                             |    |          |
| 280 nm                           | 97%                        | min.     |                             |    |          |
| 275 nm                           | 95%                        | min.     |                             |    |          |
| 265 nm                           | 90%                        | min.     |                             |    |          |
| 260 nm                           | 80%                        | min.     |                             |    |          |
| 254 nm                           | 30%                        | min.     |                             |    |          |
| Aluminium (Al)                   | 20                         | ppb max. |                             |    |          |
| Calcium (Ca)                     | 50                         | ppb max. |                             |    |          |
| Cobalt (Co)                      | 10                         | ppb max. |                             |    |          |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LM1002-G500ML | Glass   | 500 ML  |
| LM1002-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LM1002-G2.5L | Glass   | 2.5 Litre |
| LM1002-G4L   | Glass   | 4 Litre   |

## Acetonitrile

|                    |           |               |          |
|--------------------|-----------|---------------|----------|
| CH <sub>3</sub> CN | FW. 41.05 | Melting Point | -45.7 °C |
| CAS-No.            | 75-05-8   | Boiling Point | 81.6 °C  |
| Density 1 L        | 0.786 Kg. |               |          |



LC-MS GRADE

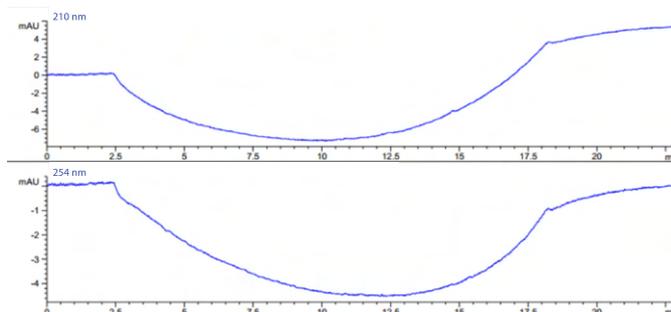
### Acetonitrile, LC-MS

LM1005

#### Specifications

|                             |                            |          |  |    |          |
|-----------------------------|----------------------------|----------|--|----|----------|
| Assay (by GC.)              | 99.95%                     | min.     | Cobalt (Co)                                    | 5  | ppb max. |
| Appearance                  | Clear and colorless liquid |          | Copper (Cu)                                    | 5  | ppb max. |
| Identity (IR)               | Passes test                |          | Iron (Fe)                                      | 10 | ppb max. |
| Color (APHA)                | 5                          | max.     | Lead (Pb)                                      | 5  | ppb max. |
| Water (by Coulometry)       | 0.01%                      | max.     | Magnesium (Mg)                                 | 5  | ppb max. |
| Acidity (mEq./g.)           | 0.0002                     | max.     | Manganese (Mn)                                 | 5  | ppb max. |
| Alkalinity (mEq./g.)        | 0.0001                     | max.     | Nickel (Ni)                                    | 5  | ppb max. |
| Residue on Evaporation      | 0.0001%                    | max.     | Potassium (K)                                  | 5  | ppb max. |
| UV Transmission Levels (%T) |                            |          | Sodium (Na)                                    | 20 | ppb max. |
| 230 nm                      | 99%                        | min.     | Tin (Sn)                                       | 5  | ppb max. |
| 215 nm                      | 98%                        | min.     | Zinc (Zn)                                      | 5  | ppb max. |
| 200 nm                      | 97%                        | min.     | Suitable for LC-MS (ESI positive as Reserpine) | 10 | ppb max. |
| 195 nm                      | 85%                        | min.     |  |    |          |
| 190 nm                      | 30%                        | min.     |  |    |          |
| Gradient Specification      |                            |          |  |    |          |
| at 210 nm                   | 1.0                        | mAU max. |  |    |          |
| at 254 nm                   | 0.5                        | mAU max. |  |    |          |
| Fluorescence (as quinine)   |                            |          |  |    |          |
| at 254 nm                   | 0.5                        | ppb max. |  |    |          |
| at 365 nm                   | 0.3                        | ppb max. |  |    |          |
| Aluminium (Al)              | 5                          | ppb max. |  |    |          |
| Barium (Ba)                 | 5                          | ppb max. |  |    |          |
| Cadmium (Cd)                | 5                          | ppb max. |  |    |          |
| Calcium (Ca)                | 20                         | ppb max. |  |    |          |
| Chromium (Cr)               | 5                          | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LM1005-G500ML | Glass   | 500 ML  |
| LM1005-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LM1005-G2.5L | Glass   | 2.5 Litre |
| LM1005-G4L   | Glass   | 4 Litre   |

## Methanol

|                    |           |
|--------------------|-----------|
| CH <sub>3</sub> OH | FW. 32.04 |
| CAS-No.            | 67-56-1   |
| Density 1 L        | 0.790 Kg. |

|               |         |
|---------------|---------|
| Melting Point | -98 °C  |
| Boiling Point | 64.5 °C |



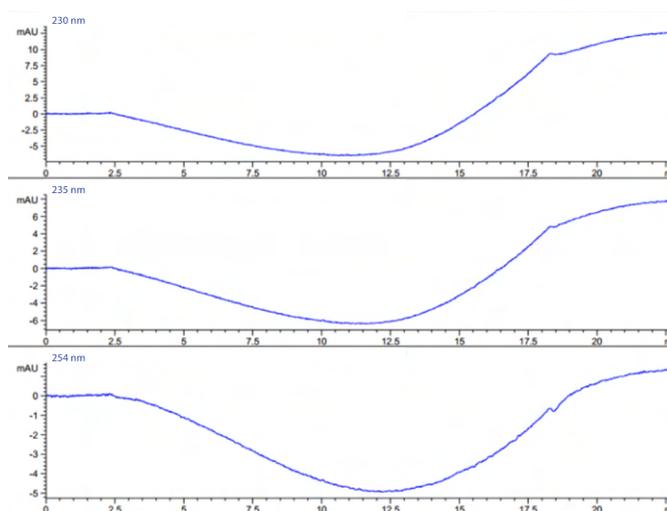
### Methanol, LC-MS

LM1115

#### Specifications

|                             |                            |          |  |    |          |
|-----------------------------|----------------------------|----------|--|----|----------|
| Assay (by GC.)              | 99.95%                     | min.     | Iron (Fe)                                      | 10 | ppb max. |
| Appearance                  | Clear and colorless liquid |          | Lead (Pb)                                      | 5  | ppb max. |
| Identity (IR)               | Passes test                |          | Magnesium (Mg)                                 | 5  | ppb max. |
| Color (APHA)                | 5                          | max.     | Manganese (Mn)                                 | 5  | ppb max. |
| Water (by Coulometry)       | 0.02%                      | max.     | Nickel (Ni)                                    | 5  | ppb max. |
| Acidity (mEq./g.)           | 0.0003                     | max.     | Potassium (K)                                  | 5  | ppb max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max.     | Sodium (Na)                                    | 20 | ppb max. |
| Residue on Evaporation      | 0.0001%                    | max.     | Tin (Sn)                                       | 5  | ppb max. |
| Acetone (GC.)               | 0.001%                     | max.     | Zinc (Zn)                                      | 5  | ppb max. |
| UV Transmission Levels (%T) |                            |          | Suitable for LC-MS (ESI positive as Reserpine) | 10 | ppb max. |
| 250 nm                      | 99%                        | min.     |  |    |          |
| 240 nm                      | 98%                        | min.     |  |    |          |
| 230 nm                      | 90%                        | min.     |  |    |          |
| 220 nm                      | 75%                        | min.     |  |    |          |
| 210 nm                      | 65%                        | min.     |  |    |          |
| Gradient Specification      |                            |          |  |    |          |
| at 230 nm                   | 2.0                        | mAU max. |  |    |          |
| at 235 nm                   | 2.0                        | mAU max. |  |    |          |
| at 254 nm                   | 1.0                        | mAU max. |  |    |          |
| Fluorescence (s quinine)    |                            |          |  |    |          |
| at 254 nm                   | 0.5                        | ppb max. |  |    |          |
| at 365 nm                   | 0.5                        | ppb max. |  |    |          |
| Aluminium (Al)              | 5                          | ppb max. |  |    |          |
| Barium (Ba)                 | 5                          | ppb max. |  |    |          |
| Cadmium (Cd)                | 5                          | ppb max. |  |    |          |
| Calcium (Ca)                | 20                         | ppb max. |  |    |          |
| Chromium (Cr)               | 5                          | ppb max. |  |    |          |
| Cobalt (Co)                 | 5                          | ppb max. |  |    |          |
| Copper (Cu)                 | 5                          | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LM1115-G500ML | Glass   | 500 ML  |
| LM1115-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LM1115-G2.5L | Glass   | 2.5 Litre |
| LM1115-G4L   | Glass   | 4 Litre   |

## Propan-2-ol

|                                      |           |               |          |
|--------------------------------------|-----------|---------------|----------|
| (CH <sub>3</sub> ) <sub>2</sub> CHOH | FW. 60.10 | Melting Point | -89.5 °C |
| CAS-No.                              | 67-63-0   | Boiling Point | 82.4 °C  |
| Density 1 L                          | 0.786 Kg. |               |          |



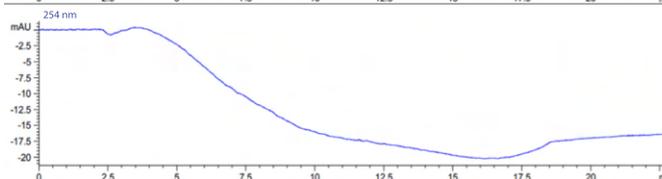
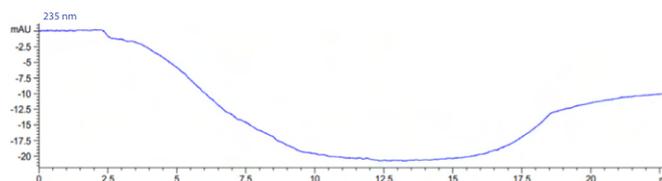
### Propan-2-ol, LC-MS

LM1162

#### Specifications

|   |                            |          |  |    |          |
|---|----------------------------|----------|--|----|----------|
| Assay (by GC.)  | 99.95%                     | min.     | Chromium (Cr)                                  | 5  | ppb max. |
| Appearance  | Clear and colorless liquid |          | Cobalt (Co)                                    | 5  | ppb max. |
| Identity (IR)   | Passes test                |          | Copper (Cu)                                    | 5  | ppb max. |
| Color (APHA)  | 5                          | max.     | Iron (Fe)                                      | 10 | ppb max. |
| Water (by Coulometry)                                 | 0.03%                      | max.     | Lead (Pb)                                      | 5  | ppb max. |
| Acidity (mEq./g.)                                     | 0.0002                     | max.     | Magnesium (Mg)                                 | 5  | ppb max. |
| Alkalinity (mEq./g.)                                  | 0.0002                     | max.     | Manganese (Mn)                                 | 5  | ppb max. |
| Residue on Evaporation                                | 0.0002%                    | max.     | Nickel (Ni)                                    | 5  | ppb max. |
| Carbonyl Compounds<br>(as propionaldehyde or acetone) | 0.002%                     | max.     | Potassium (K)                                  | 5  | ppb max. |
| Solubility in water                                   | Passes test                |          | Sodium (Na)                                    | 20 | ppb max. |
| UV Transmission Levels (%T)                           |                            |          | Tin (Sn)                                       | 5  | ppb max. |
| 250 nm  | 99%                        | min.     | Zinc (Zn)                                      | 5  | ppb max. |
| 240 nm  | 98%                        | min.     | Suitable for LC-MS (ESI positive as Reserpine) | 20 | ppb max. |
| 230 nm  | 90%                        | min.     |  |    |          |
| 220 nm  | 80%                        | min.     |  |    |          |
| 210 nm  | 40%                        | min.     |  |    |          |
| Gradient Specification                                |                            |          |  |    |          |
| at 235 nm   | 1.0                        | mAU max. |  |    |          |
| at 254 nm   | 1.0                        | mAU max. |  |    |          |
| Fluorescence (as quinine)                             |                            |          |  |    |          |
| at 254 nm   | 1.0                        | ppb max. |  |    |          |
| at 365 nm   | 0.5                        | ppb max. |  |    |          |
| Aluminium (Al)  | 5                          | ppb max. |  |    |          |
| Barium (Ba)   | 5                          | ppb max. |  |    |          |
| Cadmium (Cd)  | 5                          | ppb max. |  |    |          |
| Calcium (Ca)  | 20                         | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    | Cat No.      | Package | Size      |
|---------------|---------|---------|--------------|---------|-----------|
| LM1162-G500ML | Glass   | 500 ML  | LM1162-G2.5L | Glass   | 2.5 Litre |
| LM1162-G1L    | Glass   | 1 Litre | LM1162-G4L   | Glass   | 4 Litre   |

## Tetrahydrofuran

|                                 |           |
|---------------------------------|-----------|
| C <sub>4</sub> H <sub>8</sub> O | FW. 72.11 |
| CAS-No.                         | 109-99-9  |
| Density 1 L                     | 0.890 Kg. |

|               |           |
|---------------|-----------|
| Melting Point | -108.5 °C |
| Boiling Point | 65-66 °C  |



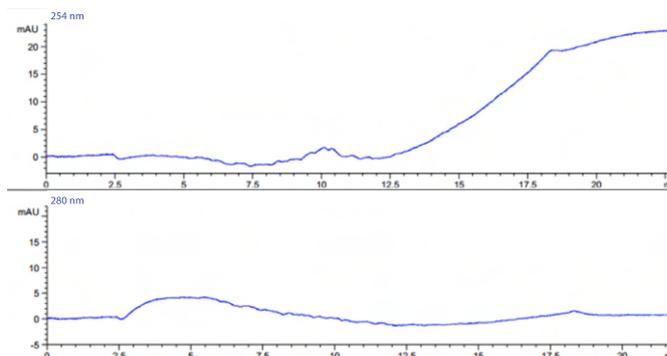
### Tetrahydrofuran, LC-MS

LM1200

#### Specifications

|   |                            |          |  |    |          |
|---|----------------------------|----------|--|----|----------|
| Assay (by GC.)  | 99.95%                     | min.     | Copper (Cu)                                    | 10 | ppb max. |
| Appearance  | Clear and colorless liquid |          | Iron (Fe)                                      | 20 | ppb max. |
| Identity (IR)   | Passes test                |          | Lead (Pb)                                      | 20 | ppb max. |
| Color (APHA)  | 5                          | max.     | Lithium (Li)                                   | 50 | ppb max. |
| Water (by Coulometry)   | 0.02%                      | max.     | Magnesium (Mg)                                 | 30 | ppb max. |
| Acidity (mEq./g.)   | 0.0002                     | max.     | Manganese (Mn)                                 | 20 | ppb max. |
| Alkalinity (mEq./g.)  | 0.0002                     | max.     | Molybdenum (Mo)                                | 50 | ppb max. |
| Residue on Evaporation  | 0.0001%                    | max.     | Nickel (Ni)                                    | 20 | ppb max. |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ),<br>(at the time of manufacturing) | 0.005%                     | max.     | Potassium (K)                                  | 50 | ppb max. |
| UV Transmission Levels (%T)   |                            |          | Silver (Ag)                                    | 50 | ppb max. |
| 280 nm  | 99%                        | min.     | Sodium (Na)                                    | 50 | ppb max. |
| 270 nm  | 88%                        | min.     | Strontium (Sr)                                 | 50 | ppb max. |
| 245 nm  | 55%                        | min.     | Tin (Sn)                                       | 50 | ppb max. |
| 230 nm  | 35%                        | min.     | Zinc (Zn)                                      | 50 | ppb max. |
| Gradient Specification  |                            |          | Suitable for LC-MS (ESI positive as Reserpine) | 50 | ppb max. |
| at 254 nm   | 15                         | mAU max. |  |    |          |
| at 280 nm   | 3                          | mAU max. |  |    |          |
| Fluorescence (s quinine)  |                            |          |  |    |          |
| at 254 nm   | 1.0                        | ppb max. |  |    |          |
| at 365 nm   | 1.0                        | ppb max. |  |    |          |
| Aluminium (Al)  | 20                         | ppb max. |  |    |          |
| Barium (Ba)   | 50                         | ppb max. |  |    |          |
| Bismuth (Bi)  | 50                         | ppb max. |  |    |          |
| Cadmium (Cd)  | 50                         | ppb max. |  |    |          |
| Calcium (Ca)  | 30                         | ppb max. |  |    |          |
| Chromium (Cr)   | 20                         | ppb max. |  |    |          |
| Cobalt (Co)   | 20                         | ppb max. |  |    |          |

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LM1200-G500ML | Glass   | 500 ML  |
| LM1200-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LM1200-G2.5L | Glass   | 2.5 Litre |
| LM1200-G4L   | Glass   | 4 Litre   |

## Water

|                  |           |               |        |
|------------------|-----------|---------------|--------|
| H <sub>2</sub> O | FW. 18.02 | Melting Point | 0 °C   |
| CAS-No.          | 7732-18-5 | Boiling Point | 100 °C |
| Density 1 L      | 1.000 Kg. |               |        |

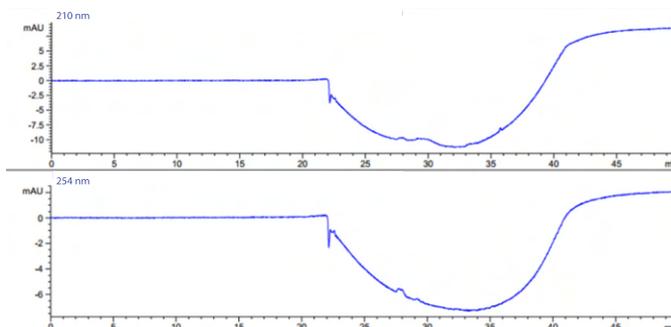
### Water, LC-MS

LM1210

#### Specifications

|                             |                            |          |  |    |          |
|-----------------------------|----------------------------|----------|--|----|----------|
| Appearance                  | Clear and colorless liquid |          | Cobalt (Co)                                    | 5  | ppb max. |
| Color (APHA)                | 5                          | max.     | Copper (Cu)                                    | 5  | ppb max. |
| Acidity (as Acetic acid)    | 0.0002%                    | max.     | Iron (Fe)                                      | 10 | ppb max. |
| Alkalinity (as Ammonia)     | 0.0002%                    | max.     | Lead (Pb)                                      | 5  | ppb max. |
| Residue on Evaporation      | 0.0001%                    | max.     | Magnesium (Mg)                                 | 5  | ppb max. |
| Chloride (Cl)               | 10                         | ppb max. | Manganese (Mn)                                 | 5  | ppb max. |
| Fluoride (F)                | 10                         | ppb max. | Nickel (Ni)                                    | 5  | ppb max. |
| Nitrate (NO <sub>3</sub> )  | 100                        | ppb max. | Potassium (K)                                  | 5  | ppb max. |
| Sulfate (SO <sub>4</sub> )  | 100                        | ppb max. | Sodium (Na)                                    | 20 | ppb max. |
| UV Transmission Levels (%T) |                            |          | Tin (Sn)                                       | 5  | ppb max. |
| 230 nm                      | 99%                        | min.     | Zinc (Zn)                                      | 5  | ppb max. |
| 200 nm                      | 95%                        | min.     | Suitable for LC-MS (ESI positive as Reserpine) | 10 | ppb max. |
| Gradient Specification      |                            |          |  |    |          |
| at 210 nm                   | 2.0                        | mAU max. |  |    |          |
| at 254 nm                   | 1.0                        | mAU max. |  |    |          |
| Fluorescence (as quinine)   |                            |          |  |    |          |
| at 254 nm                   | 1.0                        | ppb max. |  |    |          |
| at 365 nm                   | 0.5                        | ppb max. |  |    |          |
| Aluminium (Al)              | 5                          | ppb max. |  |    |          |
| Barium (Ba)                 | 5                          | ppb max. |  |    |          |
| Cadmium (Cd)                | 5                          | ppb max. |  |    |          |
| Calcium (Ca)                | 10                         | ppb max. |  |    |          |
| Chromium (Cr)               | 5                          | ppb max. |  |    |          |

Product passed through 0.1 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LM1210-G500ML | Glass   | 500 ML  |
| LM1210-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LM1210-G2.5L | Glass   | 2.5 Litre |
| LM1210-G4L   | Glass   | 4 Litre   |

## Acetonitrile

|                    |           |               |          |
|--------------------|-----------|---------------|----------|
| CH <sub>3</sub> CN | FW. 41.05 | Melting Point | -45.7 °C |
| CAS-No.            | 75-05-8   | Boiling Point | 81.6 °C  |
| Density 1 L        | 0.786 Kg. |               |          |



### Acetonitrile, Super Gradient for HPLC

**SG1005**
**Specifications**

(Conforms to Reag. Ph.Eur)

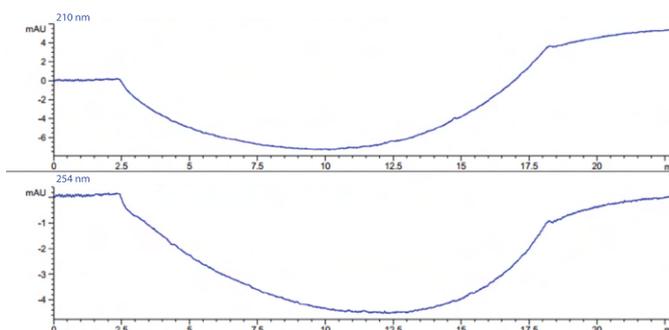
|                                    |                            |          |
|------------------------------------|----------------------------|----------|
| Assay (by GC.)                     | 99.9%                      | min.     |
| Appearance                         | Clear and colorless liquid |          |
| Identity (IR)                      | Passes test                |          |
| Color (APHA)                       | 10                         | max.     |
| Water (by Coulometry)              | 0.02%                      | max.     |
| Acidity (mEq./g.)                  | 0.0002                     | max.     |
| Alkalinity (mEq./g.)               | 0.0002                     | max.     |
| Residue on Evaporation             | 0.0002%                    | max.     |
| <b>UV Transmission Levels (%T)</b> |                            |          |
| 230 nm                             | 99%                        | min.     |
| 195 nm                             | 80%                        | min.     |
| 190 nm                             | 30%                        | min.     |
| <b>Gradient Specification</b>      |                            |          |
| at 210 nm                          | 1.0                        | mAU max. |
| at 254 nm                          | 0.5                        | mAU max. |

**Fluorescence (as quinine)**

|           |     |          |
|-----------|-----|----------|
| at 254 nm | 0.5 | ppb max. |
| at 365 nm | 0.5 | ppb max. |

Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| SG1005-G500ML | Glass   | 500 ML  |
| SG1005-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| SG1005-G2.5L | Glass   | 2.5 Litre |
| SG1005-G4L   | Glass   | 4 Litre   |



Acetonitrile, Ultra Gradient for HPLC

SG1006

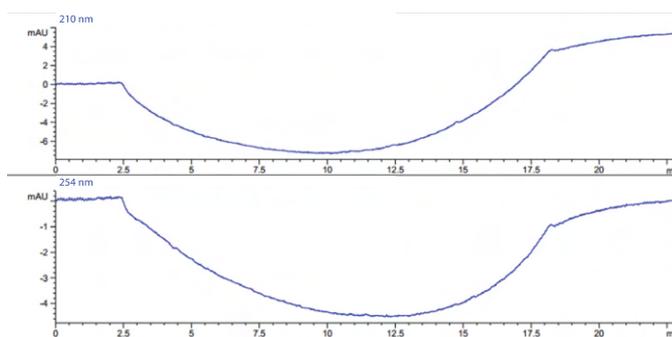
Specifications

|                                       |                            |          |
|---------------------------------------|----------------------------|----------|
| Assay (by GC.)                        | 99.95%                     | min.     |
| Appearance                            | Clear and colorless liquid |          |
| Identity (IR)                         | Passes test                |          |
| Color (APHA)                          | 10                         | max.     |
| Water (by Coulometry)                 | 0.01%                      | max.     |
| Acidity (as CH <sub>3</sub> COOH)     | 0.001%                     | max.     |
| Alkalinity (as NH <sub>3</sub> )      | 0.0001%                    | max.     |
| Residue on Evaporation                | 0.0001%                    | max.     |
| UV Transmission Levels (%T)           |                            |          |
| 230 nm                                | 99%                        | min.     |
| 215 nm                                | 98%                        | min.     |
| 200 nm                                | 97%                        | min.     |
| 195 nm                                | 85%                        | min.     |
| 191 nm                                | 30%                        | min.     |
| Gradient Specification : Highest Peak |                            |          |
| at 210 nm                             | 1.0                        | mAU max. |
| at 254 nm                             | 0.5                        | mAU max. |
| Fluorescence (as quinine)             |                            |          |
| at 254 nm                             | 0.5                        | ppb max. |
| at 365 nm                             | 0.3                        | ppb max. |
| Aluminium (Al)                        | 20                         | ppb max. |
| Barium (Ba)                           | 50                         | ppb max. |
| Cadmium (Cd)                          | 50                         | ppb max. |
| Calcium (Ca)                          | 50                         | ppb max. |
| Chromium (Cr)                         | 20                         | ppb max. |

|                |     |          |
|----------------|-----|----------|
| Cobalt (Co)    | 50  | ppb max. |
| Copper (Cu)    | 20  | ppb max. |
| Iron (Fe)      | 20  | ppb max. |
| Lead (Pb)      | 20  | ppb max. |
| Magnesium (Mg) | 20  | ppb max. |
| Manganese (Mn) | 20  | ppb max. |
| Nickel (Ni)    | 20  | ppb max. |
| Potassium (K)  | 50  | ppb max. |
| Sodium (Na)    | 100 | ppb max. |
| Tin (Sn)       | 50  | ppb max. |
| Zinc (Zn)      | 50  | ppb max. |

Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| SG1006-G500ML | Glass   | 500 ML  |
| SG1006-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| SG1006-G2.5L | Glass   | 2.5 Litre |
| SG1006-G4L   | Glass   | 4 Litre   |

# Ethanol

|                                  |           |
|----------------------------------|-----------|
| C <sub>2</sub> H <sub>5</sub> OH | FW. 46.07 |
| CAS-No.                          | 64-17-5   |
| Density 1 L                      | 0.790 Kg. |

|               |           |
|---------------|-----------|
| Melting Point | -114.5 °C |
| Boiling Point | 78.3 °C   |



## Ethanol, Super Gradient for HPLC

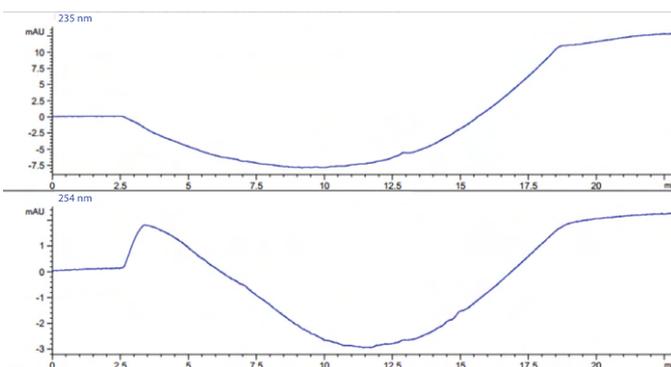
SG1380

### Specifications

|                             |                            |          |
|-----------------------------|----------------------------|----------|
| Assay (by GC.)              | 99.7%                      | min.     |
| Appearance                  | Clear and colorless liquid |          |
| Identity (IR)               | Passes test                |          |
| Color (APHA)                | 10                         | max.     |
| Water (by Coulometry)       | 0.1%                       | max.     |
| Acidity (mEq./g.)           | 0.0002                     | max.     |
| Alkalinity (mEq./g.)        | 0.0002                     | max.     |
| Residue on Evaporation      | 0.0002%                    | max.     |
| UV Transmission Levels (%T) |                            |          |
| 260 nm                      | 98%                        | min.     |
| 240 nm                      | 85%                        | min.     |
| 225 nm                      | 60%                        | min.     |
| Gradient Specification      |                            |          |
| at 235 nm                   | 5.0                        | mAU max. |
| at 254 nm                   | 2.0                        | mAU max. |
| Fluorescence (as quinine)   |                            |          |

|           |     |          |
|-----------|-----|----------|
| at 254 nm | 1.0 | ppb max. |
| at 365 nm | 0.5 | ppb max. |

Denatured with Tert Butyl Alcohol less than 0.15% (v/v).  
 Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.  
 Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| SG1380-G500ML | Glass   | 500 ML  |
| SG1380-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| SG1380-G2.5L | Glass   | 2.5 Litre |
| SG1380-G4L   | Glass   | 4 Litre   |

## Methanol

|                    |           |               |         |
|--------------------|-----------|---------------|---------|
| CH <sub>3</sub> OH | FW. 32.04 | Melting Point | -98 °C  |
| CAS-No.            | 67-56-1   | Boiling Point | 64.5 °C |
| Density 1 L        | 0.790 Kg. |               |         |



### Methanol, Super Gradient for HPLC

SG1115

#### Specifications

(Conforms to Reag. Ph.Eur)

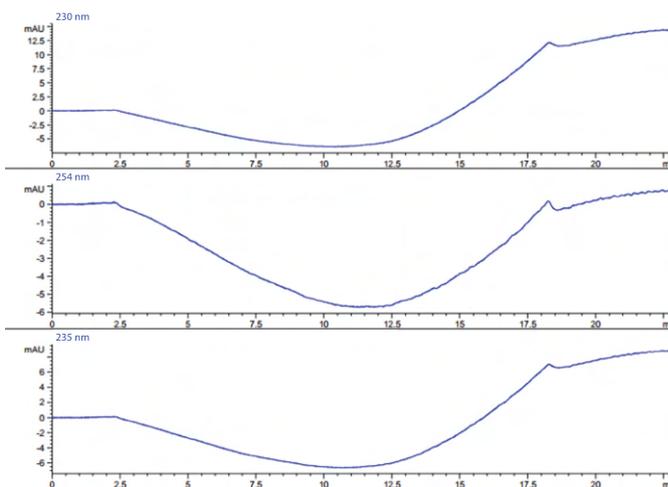
|                             |                            |          |
|-----------------------------|----------------------------|----------|
| Assay (by GC.)              | 99.9%                      | min.     |
| Appearance                  | Clear and colorless liquid |          |
| Identity (IR)               | Passes test                |          |
| Color (APHA)                | 10                         | max.     |
| Water (by Coulometry)       | 0.02%                      | max.     |
| Acidity (mEq./g.)           | 0.0003                     | max.     |
| Alkalinity (mEq./g.)        | 0.0002                     | max.     |
| Residue on Evaporation      | 0.0002%                    | max.     |
| Acetone (GC.)               | 0.001%                     | max.     |
| UV Transmission Levels (%T) |                            |          |
| 250 nm                      | 99%                        | min.     |
| 240 nm                      | 98%                        | min.     |
| 230 nm                      | 90%                        | min.     |
| 220 nm                      | 75%                        | min.     |
| 210 nm                      | 65%                        | min.     |
| Gradient Specification      |                            |          |
| at 230 nm                   | 2.0                        | mAU max. |
| at 235 nm                   | 2.0                        | mAU max. |
| at 254 nm                   | 1.0                        | mAU max. |

#### Fluorescence (as quinine)

|           |     |          |
|-----------|-----|----------|
| at 254 nm | 1.0 | ppb max. |
| at 365 nm | 0.5 | ppb max. |

Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| SG1115-G500ML | Glass   | 500 ML  |
| SG1115-G1L    | Glass   | 1 Litre |

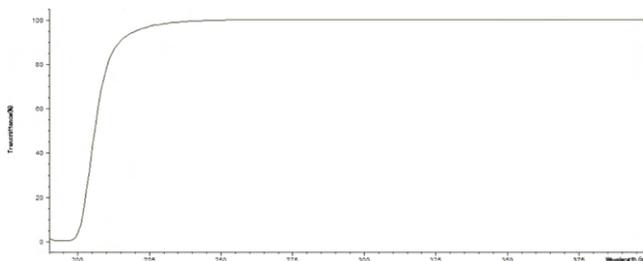
| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| SG1115-G2.5L | Glass   | 2.5 Litre |
| SG1115-G4L   | Glass   | 4 Litre   |

## Specifications

|                             |                            |          |                |     |          |
|-----------------------------|----------------------------|----------|----------------|-----|----------|
| Assay (by GC.)              | 99.95%                     | min.     | Cadmium (Cd)   | 50  | ppb max. |
| Appearance                  | Clear and colorless liquid |          | Calcium (Ca)   | 50  | ppb max. |
| Identity (IR)               | Passes test                |          | Chromium (Cr)  | 20  | ppb max. |
| Color (APHA)                | 10                         | max.     | Cobalt (Co)    | 50  | ppb max. |
| Water (by Coulometry)       | 0.02%                      | max.     | Copper (Cu)    | 20  | ppb max. |
| Acidity (mEq./g.)           | 0.0003                     | max.     | Iron (Fe)      | 20  | ppb max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max.     | Lead (Pb)      | 20  | ppb max. |
| Residue on Evaporation      | 0.0001%                    | max.     | Magnesium (Mg) | 20  | ppb max. |
| Acetone (GC.)               | 0.001%                     | max.     | Manganese (Mn) | 20  | ppb max. |
| UV Transmission Levels (%T) |                            |          | Nickel (Ni)    | 20  | ppb max. |
| 250 nm                      | 99%                        | min.     | Potassium (K)  | 50  | ppb max. |
| 240 nm                      | 98%                        | min.     | Sodium (Na)    | 100 | ppb max. |
| 230 nm                      | 90%                        | min.     | Tin (Sn)       | 50  | ppb max. |
| 220 nm                      | 75%                        | min.     | Zinc (Zn)      | 50  | ppb max. |
| 210 nm                      | 65%                        | min.     |                |     |          |
| Gradient Specification      |                            |          |                |     |          |
| at 230 nm                   | 2.0                        | mAU max. |                |     |          |
| at 235 nm                   | 2.0                        | mAU max. |                |     |          |
| at 254 nm                   | 1.0                        | mAU max. |                |     |          |
| Fluorescence (as quinine)   |                            |          |                |     |          |
| at 254 nm                   | 0.5                        | ppb max. |                |     |          |
| at 365 nm                   | 0.5                        | ppb max. |                |     |          |
| Aluminium (Al)              | 20                         | ppb max. |                |     |          |
| Barium (Ba)                 | 50                         | ppb max. |                |     |          |

Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.1 micron final filter and bottled under inert gas.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| SG1473-G500ML | Glass   | 500 ML  |
| SG1473-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| SG1473-G2.5L | Glass   | 2.5 Litre |
| SG1473-G4L   | Glass   | 4 Litre   |

## Propan-2-ol

|                                      |           |
|--------------------------------------|-----------|
| (CH <sub>3</sub> ) <sub>2</sub> CHOH | FW. 60.10 |
| CAS-No.                              | 67-63-0   |
| Density 1 L                          | 0.786 Kg. |

|               |          |
|---------------|----------|
| Melting Point | -89.5 °C |
| Boiling Point | 82.4 °C  |



### Propan-2-ol, Super Gradient for HPLC

SG1162

#### Specifications

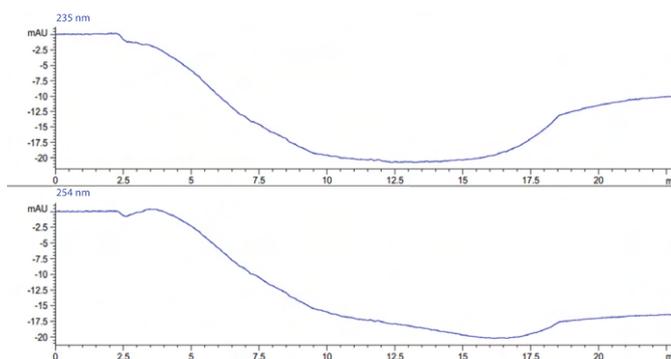
|                             |                            |          |
|-----------------------------|----------------------------|----------|
| Assay (by GC.)              | 99.9%                      | min.     |
| Appearance                  | Clear and colorless liquid |          |
| Identity (IR)               | Passes test                |          |
| Color (APHA)                | 10                         | max.     |
| Water (by Coulometry)       | 0.03%                      | max.     |
| Acidity (mEq./g.)           | 0.0002                     | max.     |
| Alkalinity (mEq./g.)        | 0.0002                     | max.     |
| Residue on Evaporation      | 0.0002%                    | max.     |
| UV Transmission Levels (%T) |                            |          |
| 250 nm                      | 99%                        | min.     |
| 230 nm                      | 90%                        | min.     |
| 220 nm                      | 80%                        | min.     |
| Gradient Specification      |                            |          |
| at 235 nm                   | 1.0                        | mAU max. |
| at 254 nm                   | 1.0                        | mAU max. |

#### Fluorescence (as quinine)

|           |     |          |
|-----------|-----|----------|
| at 254 nm | 1.0 | ppb max. |
| at 365 nm | 0.5 | ppb max. |

Suitable for HPLC, UPLC / UHPLC / Ultra HPLC - instruments.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| SG1162-G500ML | Glass   | 500 ML  |
| SG1162-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| SG1162-G2.5L | Glass   | 2.5 Litre |
| SG1162-G4L   | Glass   | 4 Litre   |



## Acetic Acid Glacial

|                      |           |               |        |
|----------------------|-----------|---------------|--------|
| CH <sub>3</sub> COOH | FW. 60.05 | Melting Point | 17 °C  |
| CAS-No.              | 64-19-7   | Boiling Point | 118 °C |
| Density 1 L          | 1.05 Kg.  |               |        |

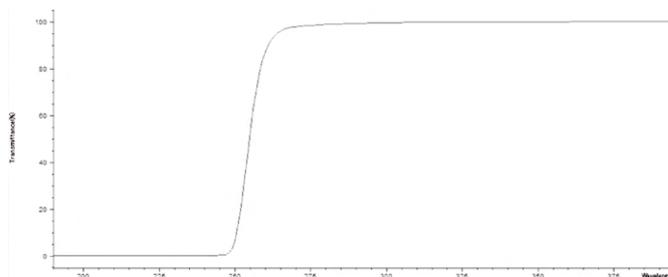


### Acetic Acid, Glacial HPLC

LC1002

#### Specifications

|                             |         |          |
|-----------------------------|---------|----------|
| Assay (by acidimetry)       | 99.8%   | min.     |
| Water (by Coulometry)       | 0.2%    | max.     |
| Color (APHA)                | 10      | max.     |
| Residue on Evaporation      | 0.0005% | max.     |
| Chloride (Cl)               | 0.5     | ppm max. |
| Sulfate (SO <sub>4</sub> )  | 0.5     | ppm max. |
| UV Transmission Levels (%T) |         |          |
| 300 nm                      | 98%     | min.     |
| 280 nm                      | 97%     | min.     |
| 260 nm                      | 80%     | min.     |



Product passed through 0.2 micron final filter.

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1002-G500ML | Glass   | 500 ML  |
| LC1002-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1002-G2.5L | Glass   | 2.5 Litre |
| LC1002-G4L   | Glass   | 4 Litre   |

## Acetone

|                                   |           |               |          |
|-----------------------------------|-----------|---------------|----------|
| CH <sub>3</sub> COCH <sub>3</sub> | FW. 58.08 | Melting Point | -95.4 °C |
| CAS-No.                           | 67-64-1   | Boiling Point | 56.2 °C  |
| Density 1 L                       | 0.790 Kg. |               |          |



### Acetone, HPLC

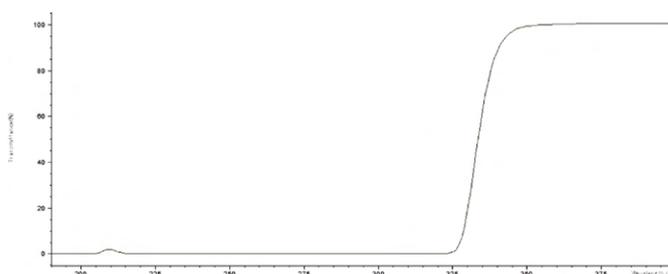
LC1003

#### Specifications

|                                  |                            |      |
|----------------------------------|----------------------------|------|
| Assay (by GC.)                   | 99.8%                      | min. |
| Appearance                       | Clear and colorless liquid |      |
| Identity (IR)                    | Passes test                |      |
| Color (APHA)                     | 10                         | max. |
| Water (by Coulometry)            | 0.2%                       | max. |
| Acidity (mEq./g.)                | 0.0002                     | max. |
| Alkalinity (mEq./g.)             | 0.0002                     | max. |
| Residue on Evaporation           | 0.0002%                    | max. |
| Aldehyde (as HCHO)               | 0.002%                     | max. |
| Methanol (GC.)                   | 0.05%                      | max. |
| Propan-2-ol (GC.)                | 0.05%                      | max. |
| Solubility in water              | Passes test                |      |
| Substances reducing permanganate | Passes test                |      |
| UV Transmission Levels (%T)      |                            |      |
| 355 nm                           | 99%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 350 nm                    | 98% | min.     |
| 340 nm                    | 85% | min.     |
| 335 nm                    | 50% | min.     |
| Fluorescence (as quinine) |     |          |
| at 365 nm                 | 1   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1003-G500ML | Glass   | 500 ML  |
| LC1003-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1003-G2.5L | Glass   | 2.5 Litre |
| LC1003-G4L   | Glass   | 4 Litre   |

## Acetone, HPLC Plus

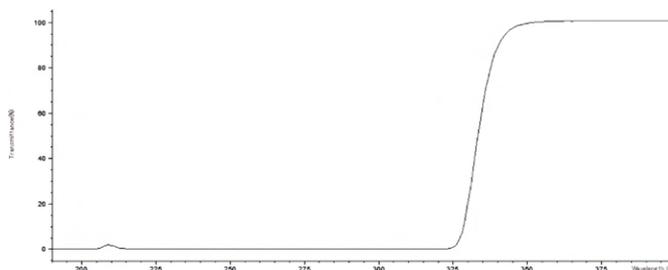
LC1004

### Specifications

|                                  |                            |      |
|----------------------------------|----------------------------|------|
| Assay (by GC.)                   | 99.8%                      | min. |
| Appearance                       | Clear and colorless liquid |      |
| Identity (IR)                    | Passes test                |      |
| Color (APHA)                     | 10                         | max. |
| Water (by Coulometry)            | 0.2%                       | max. |
| Acidity (mEq./g.)                | 0.0002                     | max. |
| Alkalinity (mEq./g.)             | 0.0002                     | max. |
| Residue on Evaporation           | 0.0002%                    | max. |
| Aldehyde (as HCHO)               | 0.002%                     | max. |
| Methanol (GC.)                   | 0.05%                      | max. |
| Propan-2-ol (GC.)                | 0.05%                      | max. |
| Solubility in water              | Passes test                |      |
| Substances reducing permanganate | Passes test                |      |
| UV Transmission Levels (%T)      |                            |      |
| 355 nm                           | 99%                        | min. |
| 350 nm                           | 98%                        | min. |

|                           |      |          |
|---------------------------|------|----------|
| 340 nm                    | 85%  | min.     |
| 335 nm                    | 50%  | min.     |
| Fluorescence (as quinine) |      |          |
| at 365 nm                 | 1    | ppb max. |
| Silicone oil              | Free |          |
| DOP                       | Free |          |
| Amide                     | Free |          |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1004-G500ML | Glass   | 500 ML  |
| LC1004-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1004-G2.5L | Glass   | 2.5 Litre |
| LC1004-G4L   | Glass   | 4 Litre   |

## Acetonitrile

|                    |           |
|--------------------|-----------|
| CH <sub>3</sub> CN | FW. 41.05 |
| CAS-No.            | 75-05-8   |
| Density 1 L        | 0.786 Kg. |

|               |          |
|---------------|----------|
| Melting Point | -45.7 °C |
| Boiling Point | 81.6 °C  |



## Acetonitrile, HPLC

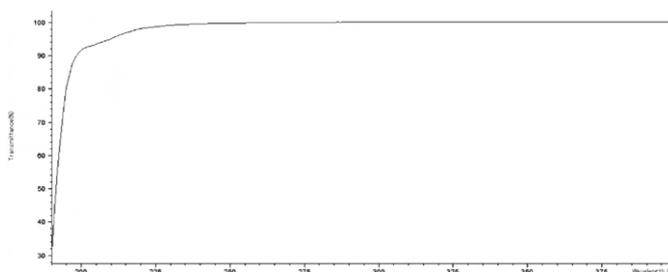
LC1005

### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.9%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.02%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 97%                        | min. |
| 210 nm                      | 93%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 195 nm                    | 70% | min.     |
| Fluorescence (as quinine) |     |          |
| at 254 nm                 | 0.5 | ppb max. |
| at 365 nm                 | 0.5 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1005-G500ML | Glass   | 500 ML  |
| LC1005-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1005-G2.5L | Glass   | 2.5 Litre |
| LC1005-G4L   | Glass   | 4 Litre   |

Acetonitrile, HPLC Plus

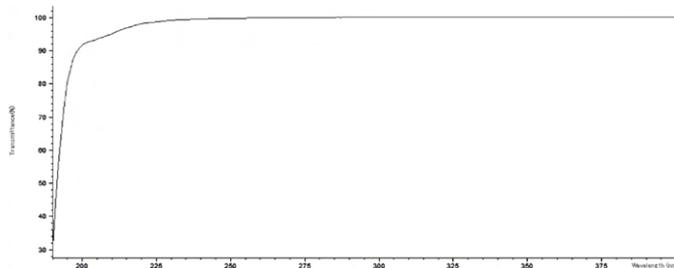
LC1219

Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.9%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.02%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 97%                        | min. |
| 210 nm                      | 93%                        | min. |
| 195 nm                      | 70%                        | min. |
| Fluorescence (as quinine)   |                            |      |

|              |      |          |
|--------------|------|----------|
| at 254 nm    | 0.5  | ppb max. |
| at 365 nm    | 0.5  | ppb max. |
| Silicone oil | Free |          |
| DOP          | Free |          |
| Amide        | Free |          |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1219-G500ML | Glass   | 500 ML  |
| LC1219-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1219-G2.5L | Glass   | 2.5 Litre |
| LC1219-G4L   | Glass   | 4 Litre   |

Acetonitrile, Far UV for HPLC

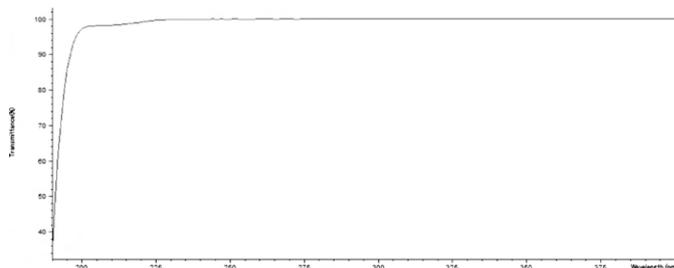
LC1007

Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.9%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.02%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 230 nm                      | 99%                        | min. |
| 220 nm                      | 98%                        | min. |
| 210 nm                      | 95%                        | min. |
| 200 nm                      | 80%                        | min. |
| 190 nm                      | 30%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| Fluorescence (as quinine) |     |          |
| at 254 nm                 | 0.5 | ppb max. |
| at 365 nm                 | 0.5 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1007-G500ML | Glass   | 500 ML  |
| LC1007-G1L    | Glass   | 1 Litre |

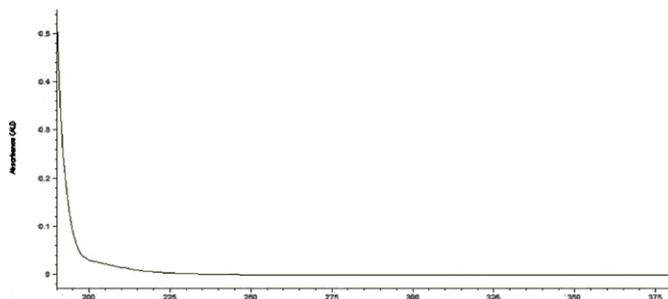
| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1007-G2.5L | Glass   | 2.5 Litre |
| LC1007-G4L   | Glass   | 4 Litre   |

## Acetonitrile, For LC Analysis

LC1386

### Specifications

|                                   |                            |         |
|-----------------------------------|----------------------------|---------|
| Assay (by GC.)                    | 99.7%                      | min.    |
| Appearance                        | Clear and colorless liquid |         |
| Color (APHA)                      | 10                         | max.    |
| Water (by Coulometry)             | 0.1%                       | max.    |
| Acidity (as CH <sub>3</sub> COOH) | 0.005%                     | max.    |
| Residue on Evaporation            | 0.001%                     | max.    |
| UV Absorbance                     |                            |         |
| 280 nm                            | 0.01                       | AU max. |
| 254 nm                            | 0.02                       | AU max. |
| 214 nm                            | 0.15                       | AU max. |
| 190 nm                            | 1.00                       | AU max. |



Product passed through 0.2 micron final filter.

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1386-G500ML | Glass   | 500 ML  |
| LC1386-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1386-G2.5L | Glass   | 2.5 Litre |
| LC1386-G4L   | Glass   | 4 Litre   |

## Butan-1-ol

|  |           |
|--|-----------|
| CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> OH | FW. 74.12 |
| CAS-No.  | 71-36-3   |
| Density 1 L  | 0.810 Kg. |

|               |          |
|---------------|----------|
| Melting Point | -89.5 °C |
| Boiling Point | 117 °C   |



## Butan-1-ol, HPLC

LC1024

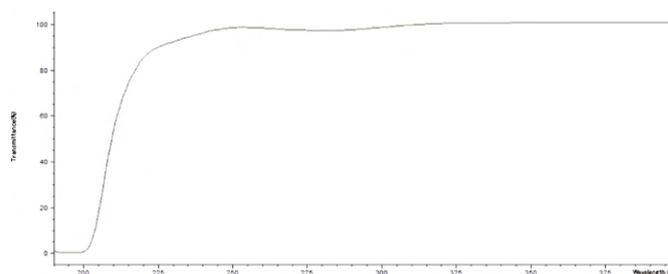
### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.8%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.05%                      | max. |
| Acidity (mEq./g.)           | 0.0002                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 310 nm                      | 99%                        | min. |
| 260 nm                      | 95%                        | min. |
| 250 nm                      | 90%                        | min. |
| 240 nm                      | 85%                        | min. |
| 230 nm                      | 75%                        | min. |

### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 2 | ppb max. |
| at 365 nm | 2 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1024-G500ML | Glass   | 500 ML  |
| LC1024-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1024-G2.5L | Glass   | 2.5 Litre |
| LC1024-G4L   | Glass   | 4 Litre   |

## n-Butyl Acetate

|  |            |
|--|------------|
| CH <sub>3</sub> COO(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> | FW. 116.16 |
| CAS-No.  | 123-86-4   |
| Density 1 L  | 0.880 Kg.  |

|               |        |
|---------------|--------|
| Melting Point | -76 °C |
| Boiling Point | 126 °C |



### n-Butyl Acetate, HPLC

LC1025

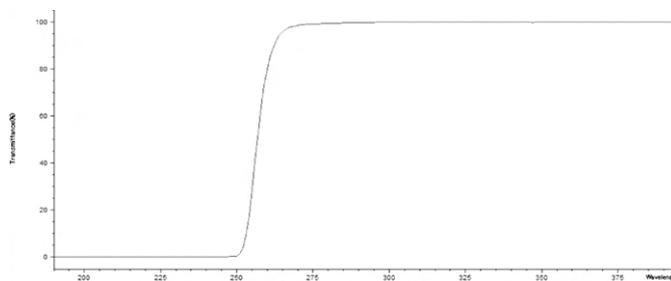
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.5%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.05%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 360 nm                      | 99%                        | min. |
| 320 nm                      | 95%                        | min. |
| 300 nm                      | 90%                        | min. |
| 280 nm                      | 80%                        | min. |
| 260 nm                      | 50%                        | min. |

#### Fluorescence (as quinine)

at 365 nm      1      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1025-G500ML | Glass   | 500 ML  |
| LC1025-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1025-G2.5L | Glass   | 2.5 Litre |
| LC1025-G4L   | Glass   | 4 Litre   |

## 1-Chlorobutane

|  |           |
|--|-----------|
| CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> Cl | FW. 92.58 |
| CAS-No.  | 109-69-3  |
| Density 1 L  | 0.886 Kg. |

|               |         |
|---------------|---------|
| Melting Point | -123 °C |
| Boiling Point | 78.4 °C |



### 1-Chlorobutane, HPLC

LC1031

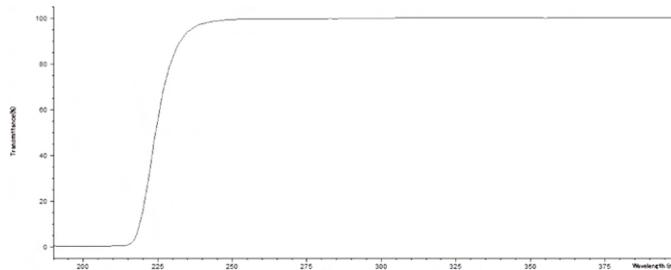
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.8%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.03%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0003%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 300 nm                      | 99%                        | min. |
| 280 nm                      | 98%                        | min. |
| 260 nm                      | 95%                        | min. |
| 240 nm                      | 85%                        | min. |
| 230 nm                      | 65%                        | min. |

#### Fluorescence (as quinine)

at 365 nm      1      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1031-G500ML | Glass   | 500 ML  |
| LC1031-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1031-G2.5L | Glass   | 2.5 Litre |
| LC1031-G4L   | Glass   | 4 Litre   |

## Chloroform

|                   |            |               |        |
|-------------------|------------|---------------|--------|
| CHCl <sub>3</sub> | FW. 119.38 | Melting Point | -63 °C |
| CAS-No.           | 67-66-3    | Boiling Point | 61 °C  |
| Density 1 L       | 1.479 Kg.  |               |        |



### Chloroform, HPLC

LC1027E

#### Specifications

|  |                            |          |   |     |          |
|--|----------------------------|----------|---|-----|----------|
| Assay (by GC.)                         | 99.8%                      | min.     | 260 nm  | 85% | min.     |
| Appearance                             | Clear and colorless liquid |          | 250 nm  | 50% | min.     |
| Identity (IR)                          | Passes test                |          | Fluorescence (as quinine)                       |     |          |
| Color (APHA)                           | 10                         | max.     | at 254 nm                                       | 1   | ppb max. |
| Water (by Coulometry)                  | 0.01%                      | max.     | at 365 nm                                       | 1   | ppb max. |
| Acidity (mEq./g.)                      | 0.0005                     | max.     | Stabilized with about 1% ethanol.               |     |          |
| Alkalinity (mEq./g.)                   | 0.0002                     | max.     | Product passed through 0.2 micron final filter. |     |          |
| Residue on Evaporation                 | 0.0003%                    | max.     |   |     |          |
| Acetone and Aldehyde                   | Passes test                |          |   |     |          |
| Acid and Chloride                      | Passes test                |          |   |     |          |
| Free Chlorine (Cl)                     | 0.0005%                    | max.     |   |     |          |
| Substances darkened by sulfuric acid   | Passes test                |          |   |     |          |
| Suitability for use in dithizone tests | Passes test                |          |   |     |          |
| Lead (Pb)                              | 0.05                       | ppm max. |   |     |          |
| UV Transmission Levels (%T)            |                            |          |   |     |          |
| 280 nm                                 | 99%                        | min.     |   |     |          |
| 270 nm                                 | 98%                        | min.     |   |     |          |

| Cat No.        | Package | Size    | Cat No.       | Package | Size      |
|----------------|---------|---------|---------------|---------|-----------|
| LC1027E-G500ML | Glass   | 500 ML  | LC1027E-G2.5L | Glass   | 2.5 Litre |
| LC1027E-G1L    | Glass   | 1 Litre | LC1027E-G4L   | Glass   | 4 Litre   |



## Cyclohexane

|             |           |
|-------------|-----------|
| $C_6H_{12}$ | FW. 84.16 |
| CAS-No.     | 110-82-7  |
| Density 1 L | 0.779 Kg. |

|               |       |
|---------------|-------|
| Melting Point | 6 °C  |
| Boiling Point | 81 °C |



### Cyclohexane, HPLC

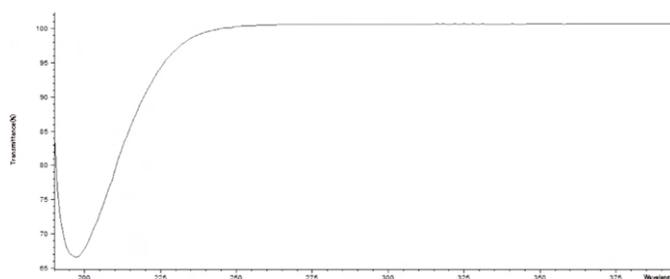
LC1033

#### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.9%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0002                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0002%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 95%                        | min. |
| 220 nm                               | 80%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 210 nm                    | 60% | min.     |
| Fluorescence (as quinine) |     |          |
| at 254 nm                 | 1   | ppb max. |
| at 365 nm                 | 1   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1033-G500ML | Glass   | 500 ML  |
| LC1033-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1033-G2.5L | Glass   | 2.5 Litre |
| LC1033-G4L   | Glass   | 4 Litre   |

## 1,2-Dichloroethane

|              |           |
|--------------|-----------|
| $C_2H_4Cl_2$ | FW. 98.96 |
| CAS-No.      | 107-06-2  |
| Density 1 L  | 1.250 Kg. |

|               |         |
|---------------|---------|
| Melting Point | -35 °C  |
| Boiling Point | 83.5 °C |



### 1,2-Dichloroethane, HPLC

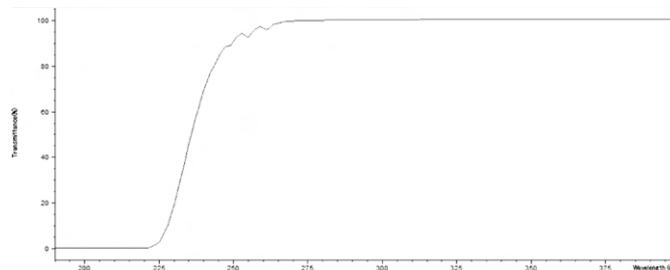
LC1038

#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.8%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.01%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0003%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 300 nm                      | 99%                        | min. |
| 280 nm                      | 98%                        | min. |
| 260 nm                      | 90%                        | min. |
| 250 nm                      | 50%                        | min. |

|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 254 nm                 | 1 | ppb max. |
| at 365 nm                 | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1038-G500ML | Glass   | 500 ML  |
| LC1038-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1038-G2.5L | Glass   | 2.5 Litre |
| LC1038-G4L   | Glass   | 4 Litre   |

Dichloromethane

|                                 |           |               |        |
|---------------------------------|-----------|---------------|--------|
| CH <sub>2</sub> Cl <sub>2</sub> | FW. 84.93 | Melting Point | -95 °C |
| CAS-No.                         | 75-09-2   | Boiling Point | 40 °C  |
| Density 1 L                     | 1.330 Kg. |               |        |



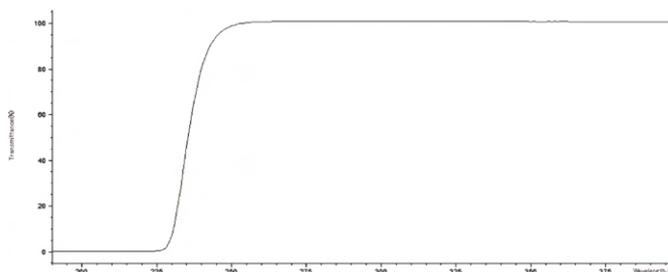
Dichloromethane, HPLC LC1040A

Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.9%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.01%                      | max. |
| Acidity (mEq./g.)           | 0.0002                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0003%                    | max. |
| Free Chlorine (Cl)          | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 260 nm                      | 99%                        | min. |
| 250 nm                      | 98%                        | min. |
| 245 nm                      | 90%                        | min. |
| 240 nm                      | 75%                        | min. |
| 235 nm                      | 40%                        | min. |

|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 254 nm                 | 1 | ppb max. |
| at 365 nm                 | 1 | ppb max. |

Stabilized with about 50 ppm Amylene.  
Product passed through 0.2 micron final filter.



| Cat No.        | Package | Size    |
|----------------|---------|---------|
| LC1040A-G500ML | Glass   | 500 ML  |
| LC1040A-G1L    | Glass   | 1 Litre |

| Cat No.       | Package | Size      |
|---------------|---------|-----------|
| LC1040A-G2.5L | Glass   | 2.5 Litre |
| LC1040A-G4L   | Glass   | 4 Litre   |

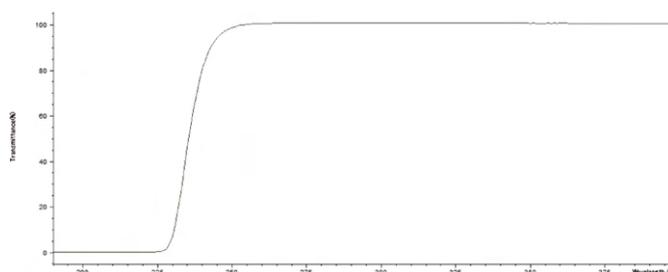
Dichloromethane, HPLC Plus LC1041A

Specifications

|                             |                            |          |
|-----------------------------|----------------------------|----------|
| Assay (by GC.)              | 99.9%                      | min.     |
| Appearance                  | Clear and colorless liquid |          |
| Identity (IR)               | Passes test                |          |
| Color (APHA)                | 10                         | max.     |
| Water (by Coulometry)       | 0.01%                      | max.     |
| Acidity (mEq./g.)           | 0.0003                     | max.     |
| Alkalinity (mEq./g.)        | 0.0002                     | max.     |
| Residue on Evaporation      | 0.0003%                    | max.     |
| Free Chlorine (Cl)          | 0.0002%                    | max.     |
| UV Transmission Levels (%T) |                            |          |
| 260 nm                      | 99%                        | min.     |
| 250 nm                      | 98%                        | min.     |
| 240 nm                      | 75%                        | min.     |
| 235 nm                      | 40%                        | min.     |
| Fluorescence (as quinine)   |                            |          |
| at 254 nm                   | 1                          | ppb max. |

|              |      |          |
|--------------|------|----------|
| at 365 nm    | 1    | ppb max. |
| Silicone oil | Free |          |
| DOP          | Free |          |
| Amide        | Free |          |

Stabilized with about 50 ppm amylenes.  
Product passed through 0.2 micron final filter.



| Cat No.        | Package | Size    |
|----------------|---------|---------|
| LC1041A-G500ML | Glass   | 500 ML  |
| LC1041A-G1L    | Glass   | 1 Litre |

| Cat No.       | Package | Size      |
|---------------|---------|-----------|
| LC1041A-G2.5L | Glass   | 2.5 Litre |
| LC1041A-G4L   | Glass   | 4 Litre   |

## Diethyl Ether

(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>O  
 FW. 74.12  
 CAS-No. 60-29-7  
 Density 1 L 0.710 Kg.

Melting Point -116.3 °C  
 Boiling Point 34.6 °C



### Diethyl Ether, HPLC

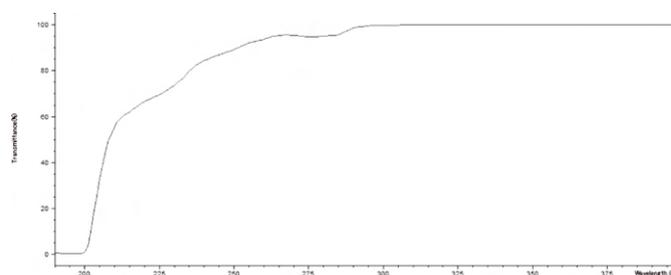
LC1044B

#### Specifications

|  |                            |          |
|--|----------------------------|----------|
| Assay (by GC.)                               | 99.5%                      | min.     |
| Appearance                                   | Clear and colorless liquid |          |
| Identity (IR)                                | Passes test                |          |
| Color (APHA)                                 | 10                         | max.     |
| Water (by Coulometry)                        | 0.02%                      | max.     |
| Acidity (mEq./g.)                            | 0.0002                     | max.     |
| Residue on Evaporation                       | 0.0005%                    | max.     |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ) | 5                          | ppm max. |
| UV Transmission Levels (%T)                  |                            |          |
| 300 nm                                       | 99%                        | min.     |
| 280 nm                                       | 95%                        | min.     |
| 260 nm                                       | 90%                        | min.     |
| 250 nm                                       | 80%                        | min.     |
| 230 nm                                       | 50%                        | min.     |

Fluorescence (as quinine)  
 at 365 nm 1 ppb max.

Stabilized with about 5 ppm BHT.  
 Product passed through 0.2 micron final filter.



| Cat No.        | Package | Size    |
|----------------|---------|---------|
| LC1044B-G500ML | Glass   | 500 ML  |
| LC1044B-G1L    | Glass   | 1 Litre |

| Cat No.       | Package | Size      |
|---------------|---------|-----------|
| LC1044B-G2.5L | Glass   | 2.5 Litre |
| LC1044B-G4L   | Glass   | 4 Litre   |

### Diethyl Ether, HPLC

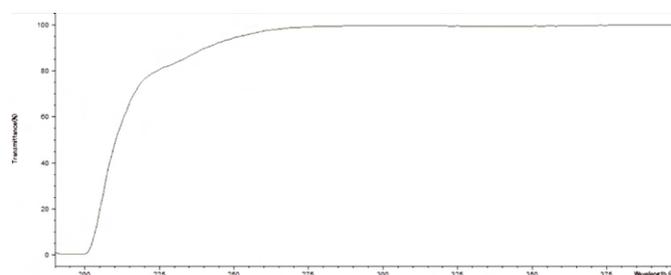
LC1046E

#### Specifications

|  |                            |          |
|--|----------------------------|----------|
| Assay (by GC.)                               | 99.5%                      | min.     |
| Appearance                                   | Clear and colorless liquid |          |
| Identity (IR)                                | Passes test                |          |
| Color (APHA)                                 | 10                         | max.     |
| Water (by Coulometry)                        | 0.02%                      | max.     |
| Acidity (mEq./g.)                            | 0.0002                     | max.     |
| Residue on Evaporation                       | 0.0005%                    | max.     |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ) | 5                          | ppm max. |
| UV Transmission Levels (%T)                  |                            |          |
| 280 nm                                       | 99%                        | min.     |
| 260 nm                                       | 95%                        | min.     |
| 250 nm                                       | 90%                        | min.     |
| 240 nm                                       | 80%                        | min.     |
| 230 nm                                       | 70%                        | min.     |

Fluorescence (as quinine)  
 at 365 nm 1 ppb max.

Stabilized with about 1% ethanol.  
 Product passed through 0.2 micron final filter.



| Cat No.        | Package | Size    |
|----------------|---------|---------|
| LC1046E-G500ML | Glass   | 500 ML  |
| LC1046E-G1L    | Glass   | 1 Litre |

| Cat No.       | Package | Size      |
|---------------|---------|-----------|
| LC1046E-G2.5L | Glass   | 2.5 Litre |
| LC1046E-G4L   | Glass   | 4 Litre   |

## Dimethylacetamide

|  |           |               |        |
|--|-----------|---------------|--------|
| CH <sub>3</sub> CON(CH <sub>3</sub> ) <sub>2</sub> | FW. 87.12 | Melting Point | -20 °C |
| CAS-No.  | 127-19-5  | Boiling Point | 166 °C |
| Density 1 L  | 0.940 Kg. |               |        |



### Dimethylacetamide, HPLC

LC1050

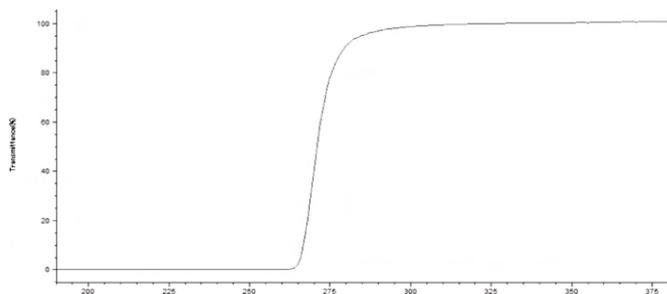
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.8%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.05%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 350 nm                      | 99%                        | min. |
| 320 nm                      | 98%                        | min. |
| 290 nm                      | 85%                        | min. |
| 280 nm                      | 80%                        | min. |
| 275 nm                      | 60%                        | min. |

#### Fluorescence (as quinine)

at 365 nm      1      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1050-G500ML | Glass   | 500 ML  |
| LC1050-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1050-G2.5L | Glass   | 2.5 Litre |
| LC1050-G4L   | Glass   | 4 Litre   |

## Dimethylformamide

|                                     |           |               |        |
|-------------------------------------|-----------|---------------|--------|
| HCON(CH <sub>3</sub> ) <sub>2</sub> | FW. 73.10 | Melting Point | -61 °C |
| CAS-No.                             | 68-12-2   | Boiling Point | 153 °C |
| Density 1 L                         | 0.949 Kg. |               |        |



### Dimethylformamide, HPLC

LC1051

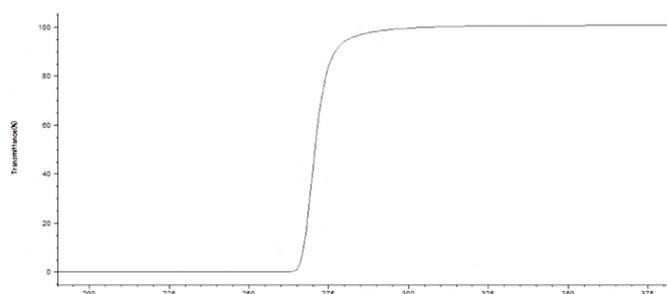
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.9%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.05%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 320 nm                      | 99%                        | min. |
| 300 nm                      | 98%                        | min. |
| 290 nm                      | 90%                        | min. |
| 280 nm                      | 80%                        | min. |
| 275 nm                      | 60%                        | min. |

#### Fluorescence (as quinine)

at 365 nm      1      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1051-G500ML | Glass   | 500 ML  |
| LC1051-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1051-G2.5L | Glass   | 2.5 Litre |
| LC1051-G4L   | Glass   | 4 Litre   |

## Dimethylsulphoxide

|                                    |           |               |         |
|------------------------------------|-----------|---------------|---------|
| (CH <sub>3</sub> ) <sub>2</sub> SO | FW. 78.13 | Melting Point | 18.5 °C |
| CAS-No.                            | 67-68-5   | Boiling Point | 189 °C  |
| Density 1 L                        | 1.100 Kg. |               |         |

### Dimethylsulphoxide, HPLC

LC1334

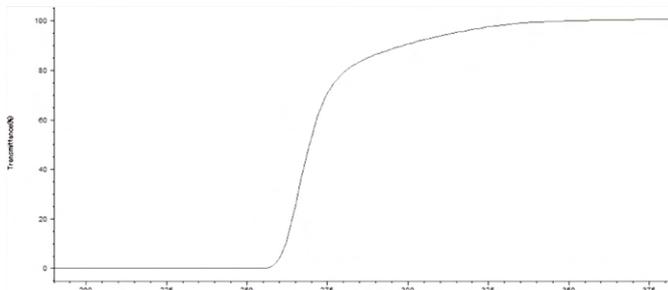
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.9%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.05%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 360 nm                      | 98%                        | min. |
| 340 nm                      | 95%                        | min. |
| 330 nm                      | 90%                        | min. |
| 310 nm                      | 80%                        | min. |
| 290 nm                      | 65%                        | min. |

#### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 2 | ppb max. |
| at 365 nm | 2 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1334-G500ML | Glass   | 500 ML  |
| LC1334-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1334-G2.5L | Glass   | 2.5 Litre |
| LC1334-G4L   | Glass   | 4 Litre   |

## 1,4-Dioxan

|  |           |               |          |
|--|-----------|---------------|----------|
| C <sub>4</sub> H <sub>8</sub> O <sub>2</sub> | FW. 88.11 | Melting Point | 12 °C    |
| CAS-No.                                      | 123-91-1  | Boiling Point | 101.5 °C |
| Density 1 L                                  | 1.030 Kg. |               |          |



### 1,4-Dioxan, HPLC

LC1057

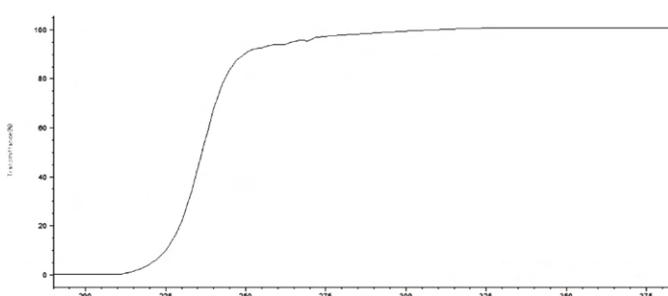
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.8%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.02%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 290 nm                      | 98%                        | min. |
| 280 nm                      | 95%                        | min. |
| 270 nm                      | 90%                        | min. |
| 260 nm                      | 85%                        | min. |
| 250 nm                      | 80%                        | min. |

#### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 5 | ppb max. |
| at 365 nm | 2 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1057-G500ML | Glass   | 500 ML  |
| LC1057-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1057-G2.5L | Glass   | 2.5 Litre |
| LC1057-G4L   | Glass   | 4 Litre   |

## Ethanol

|                                  |           |               |           |
|----------------------------------|-----------|---------------|-----------|
| C <sub>2</sub> H <sub>5</sub> OH | FW. 46.07 | Melting Point | -114.5 °C |
| CAS-No.                          | 64-17-5   | Boiling Point | 78.3 °C   |
| Density 1 L                      | 0.790 Kg. |               |           |



### Ethanol, HPLC

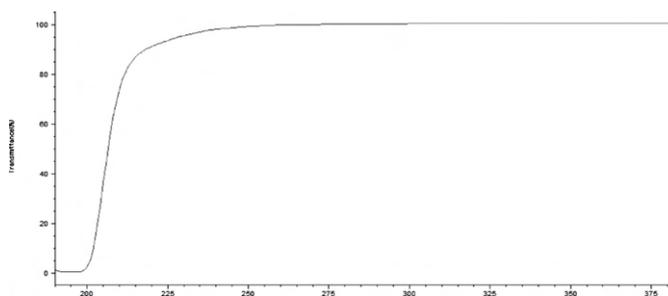
LC1380

#### Specifications

(Conforms to ACS/BP/EP/USP/NF)

|                                  |                            |          |                 |      |          |
|----------------------------------|----------------------------|----------|-----------------|------|----------|
| Assay (by GC.)                   | 99.7%                      | min.     | Cadmium (Cd)    | 0.05 | ppm max. |
| Appearance                       | Clear and colorless liquid |          | Calcium (Ca)    | 0.5  | ppm max. |
| Identity (IR)                    | Passes test                |          | Chromium (Cr)   | 0.02 | ppm max. |
| Color (APHA)                     | 10                         | max.     | Copper (Cu)     | 0.02 | ppm max. |
| Color of solution                | Passes test                |          | Gallium (Ga)    | 0.02 | ppm max. |
| Clarity of solution              | Passes test                |          | Gold (Au)       | 0.02 | ppm max. |
| Water (by Coulometry)            | 0.1%                       | max.     | Indium (In)     | 0.02 | ppm max. |
| Acid or alkalinity               | 30                         | ppm max. | Iron (Fe)       | 0.1  | ppm max. |
| Acidity (mEq./g.)                | 0.0002                     | max.     | Platinum (Pt)   | 0.02 | ppm max. |
| Alkalinity (mEq./g.)             | 0.0002                     | max.     | Lead (Pb)       | 0.1  | ppm max. |
| Residue on Evaporation           | 0.0005%                    | max.     | Lithium (Li)    | 0.02 | ppm max. |
| Aldehydes (as Acetaldehyde)      | 0.001%                     | max.     | Magnesium (Mg)  | 0.1  | ppm max. |
| Carbonyl compounds (as CO)       | 0.003%                     | max.     | Manganese (Mn)  | 0.02 | ppm max. |
| Acetone (GC.)                    | 0.001%                     | max.     | Molybdenum (Mo) | 0.02 | ppm max. |
| Ethylmethylketone (GC.)          | 0.02%                      | max.     | Nickel (Ni)     | 0.02 | ppm max. |
| Higher alcohols (GC.)            | 0.01%                      | max.     | Silver (Ag)     | 0.02 | ppm max. |
| Isoamyl alcohol (GC.)            | 0.05%                      | max.     | Tin (Sn)        | 0.1  | ppm max. |
| Methanol (GC.)                   | 0.01%                      | max.     | Titanium (Ti)   | 0.02 | ppm max. |
| Propan-2-ol (GC.)                | 0.003%                     | max.     | Thallium (Tl)   | 0.02 | ppm max. |
| Acetaldehyde and Acetal          | 10                         | ppm max. | Vanadium (V)    | 0.02 | ppm max. |
| Benzene                          | 2                          | ppm max. | Zinc (Zn)       | 0.1  | ppm max. |
| Total of other impurities        | 300                        | ppm max. | Zirconium (Zr)  | 0.02 | ppm max. |
| Disregard limit                  | 9                          | ppm max. | UV Absorbance   |      |          |
| Fusel oil                        | Passes test                |          | 270 - 340 nm    | 0.10 | AU max.  |
| Readily carbonizable substances  | Passes test                |          | 250 - 260 nm    | 0.30 | AU max.  |
| Solubility in water              | Passes test                |          | 240 nm          | 0.40 | AU max.  |
| Substances reducing permanganate | 0.0002%                    | max.     |                 |      |          |
| Chloride (Cl)                    | 0.3                        | ppm max. |                 |      |          |
| Nitrate (NO <sub>3</sub> )       | 0.3                        | ppm max. |                 |      |          |
| Phosphate (PO <sub>4</sub> )     | 0.3                        | ppm max. |                 |      |          |
| Sulfate (SO <sub>4</sub> )       | 0.3                        | ppm max. |                 |      |          |
| Aluminium (Al)                   | 0.5                        | ppm max. |                 |      |          |
| Antimony (Sb)                    | 0.02                       | ppm max. |                 |      |          |
| Arsenic (As)                     | 0.02                       | ppm max. |                 |      |          |
| Barium (Ba)                      | 0.1                        | ppm max. |                 |      |          |
| Beryllium (Be)                   | 0.02                       | ppm max. |                 |      |          |
| Bismuth (Bi)                     | 0.02                       | ppm max. |                 |      |          |

Denatured with Tert Butyl Alcohol less than 0.15% (v/v).



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1380-G500ML | Glass   | 500 ML  |
| LC1380-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1380-G2.5L | Glass   | 2.5 Litre |
| LC1380-G4L   | Glass   | 4 Litre   |

## Ethyl Acetate

|  |           |               |        |
|--|-----------|---------------|--------|
| CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub> | FW. 88.11 | Melting Point | -83 °C |
| CAS-No.  | 141-78-6  | Boiling Point | 77 °C  |
| Density 1 L                                      | 0.900 Kg. |               |        |



### Ethyl Acetate, HPLC

LC1070

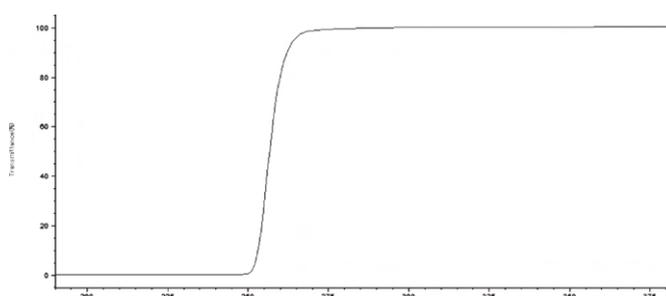
#### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.8%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.02%                      | max. |
| Acidity (mEq./g.)                    | 0.0002                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0002%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 300 nm                               | 99%                        | min. |
| 270 nm                               | 98%                        | min. |
| 265 nm                               | 80%                        | min. |
| 260 nm                               | 70%                        | min. |

#### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 2 | ppb max. |
| at 365 nm | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1070-G500ML | Glass   | 500 ML  |
| LC1070-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1070-G2.5L | Glass   | 2.5 Litre |
| LC1070-G4L   | Glass   | 4 Litre   |

## n-Heptane

|   |            |               |          |
|---|------------|---------------|----------|
| CH <sub>3</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> | FW. 100.21 | Melting Point | -90.5 °C |
| CAS-No.   | 142-82-5   | Boiling Point | 97-98 °C |
| Density 1 L   | 0.680 Kg.  |               |          |



### n-Heptane 95%, HPLC

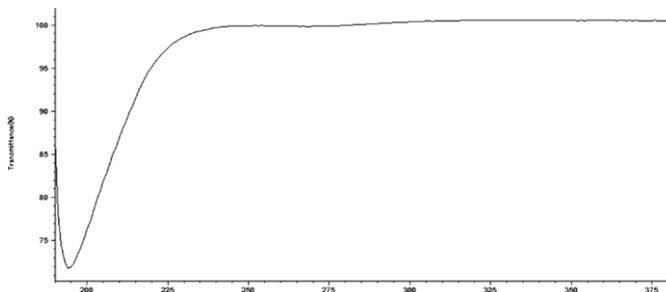
LC1078

#### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 95.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 95%                        | min. |
| 220 nm                               | 80%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 210 nm                    | 60% | min.     |
| Fluorescence (as quinine) |     |          |
| at 254 nm                 | 1   | ppb max. |
| at 365 nm                 | 1   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1078-G500ML | Glass   | 500 ML  |
| LC1078-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1078-G2.5L | Glass   | 2.5 Litre |
| LC1078-G4L   | Glass   | 4 Litre   |

## n-Heptane 99%, HPLC

LC1080

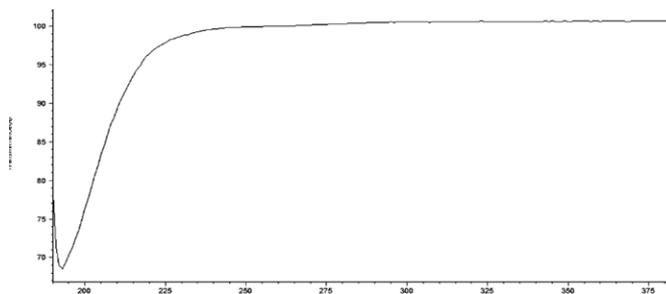
### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.3%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0002                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0002%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 95%                        | min. |
| 220 nm                               | 80%                        | min. |
| 210 nm                               | 60%                        | min. |

### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1080-G500ML | Glass   | 500 ML  |
| LC1080-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1080-G2.5L | Glass   | 2.5 Litre |
| LC1080-G4L   | Glass   | 4 Litre   |

## Heptane Fraction

C<sub>7</sub>H<sub>16</sub>

FW. 100.21

Melting Point

-90.5 °C

CAS-No.

142-82-5

Boiling Point

97-98 °C

Density 1 L

0.680 - 0.690 Kg.



## Heptane Fraction, HPLC

LC1082

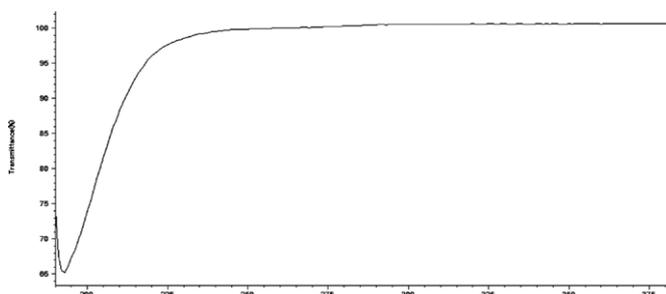
### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 85.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 95%                        | min. |
| 220 nm                               | 80%                        | min. |
| 210 nm                               | 60%                        | min. |

### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1082-G500ML | Glass   | 500 ML  |
| LC1082-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1082-G2.5L | Glass   | 2.5 Litre |
| LC1082-G4L   | Glass   | 4 Litre   |

## n-Hexane

CH<sub>3</sub>(CH<sub>2</sub>)<sub>4</sub>CH<sub>3</sub>

FW. 86.18

Melting Point

-94.3 °C

CAS-No.

110-54-3

Boiling Point

69 °C

Density 1 L

0.660 Kg.



### n-Hexane 95%, HPLC

LC1083

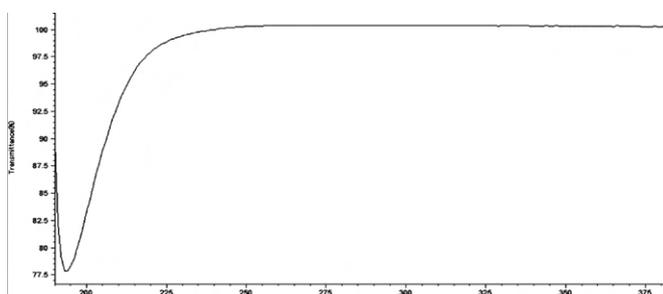
#### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 95.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 240 nm                               | 99%                        | min. |
| 230 nm                               | 98%                        | min. |
| 220 nm                               | 90%                        | min. |
| 210 nm                               | 70%                        | min. |
| 200 nm                               | 50%                        | min. |

#### Fluorescence (as quinine)

|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1083-G500ML | Glass   | 500 ML  |
| LC1083-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1083-G2.5L | Glass   | 2.5 Litre |
| LC1083-G4L   | Glass   | 4 Litre   |

### n-Hexane 95%, HPLC Plus

LC1084

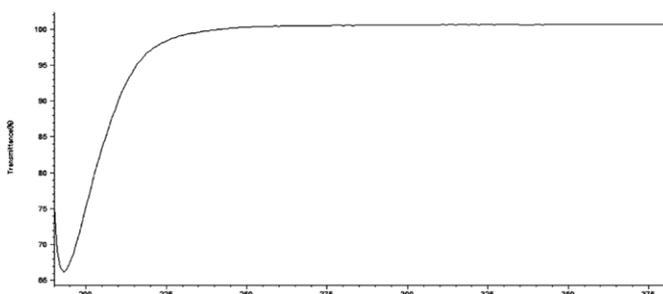
#### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 95.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 240 nm                               | 99%                        | min. |
| 230 nm                               | 98%                        | min. |
| 220 nm                               | 90%                        | min. |
| 210 nm                               | 70%                        | min. |
| 200 nm                               | 50%                        | min. |

|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

|              |      |
|--------------|------|
| Silicone oil | Free |
| DOP          | Free |
| Amide        | Free |

Product passed through 0.2 micron final filter.



Fluorescence (as quinine)

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1084-G500ML | Glass   | 500 ML  |
| LC1084-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1084-G2.5L | Glass   | 2.5 Litre |
| LC1084-G4L   | Glass   | 4 Litre   |

**n-Hexane 99%, HPLC**

**LC1085**

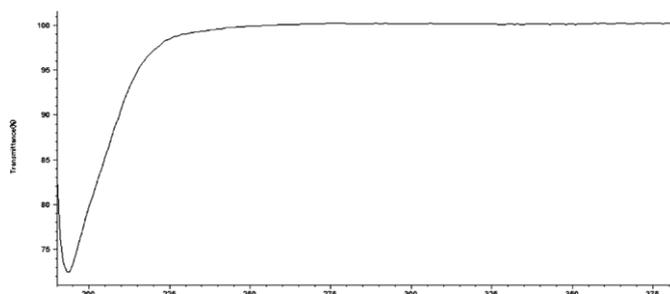
**Specifications**

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0002                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0001%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 240 nm                               | 99%                        | min. |
| 230 nm                               | 98%                        | min. |
| 220 nm                               | 90%                        | min. |
| 210 nm                               | 70%                        | min. |
| 200 nm                               | 50%                        | min. |

**Fluorescence (as quinine)**

|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1085-G500ML | Glass   | 500 ML  |
| LC1085-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1085-G2.5L | Glass   | 2.5 Litre |
| LC1085-G4L   | Glass   | 4 Litre   |

**n-Hexane 99%, HPLC Plus**

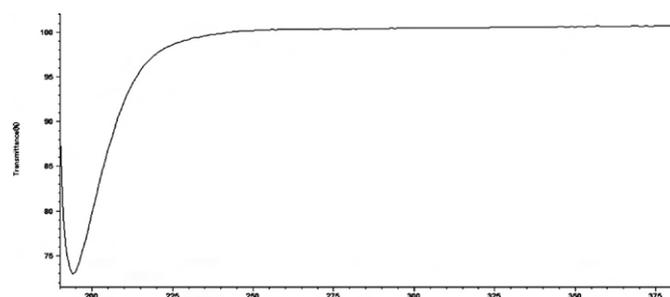
**LC1086**

**Specifications**

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 240 nm                               | 99%                        | min. |
| 230 nm                               | 98%                        | min. |
| 220 nm                               | 90%                        | min. |
| 210 nm                               | 70%                        | min. |
| 200 nm                               | 50%                        | min. |

|              |      |          |
|--------------|------|----------|
| at 365 nm    | 1    | ppb max. |
| Silicone oil | Free |          |
| DOP          | Free |          |
| Amide        | Free |          |

Product passed through 0.2 micron final filter.



|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 254 nm                 | 1 | ppb max. |

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1086-G500ML | Glass   | 500 ML  |
| LC1086-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1086-G2.5L | Glass   | 2.5 Litre |
| LC1086-G4L   | Glass   | 4 Litre   |

## Hexanes

|                                |           |               |          |
|--------------------------------|-----------|---------------|----------|
| C <sub>6</sub> H <sub>14</sub> | FW. 86.18 | Melting Point | -94.3 °C |
| CAS-No.                        | 110-54-3  | Boiling Point | 69 °C    |
| Density 1 L                    | 0.660 Kg. |               |          |



### Hexanes, HPLC

LC1090

#### Specifications

|   |                            |      |
|---|----------------------------|------|
| Assay (by GC. : Total C <sub>6</sub> Isomers) | 99.5%                      | min. |
| Appearance                                    | Clear and colorless liquid |      |
| Identity (IR)                                 | Passes test                |      |
| Color (APHA)                                  | 10                         | max. |
| Water (by Coulometry)                         | 0.01%                      | max. |
| Acidity (mEq./g.)                             | 0.0005                     | max. |
| Residue on Evaporation                        | 0.0003%                    | max. |
| Substances darkened by sulfuric acid          | Passes test                |      |
| UV Transmission Levels (%T)                   |                            |      |
| 240 nm  | 99%                        | min. |
| 230 nm  | 98%                        | min. |
| 220 nm  | 90%                        | min. |
| 210 nm  | 70%                        | min. |
| 200 nm  | 50%                        | min. |

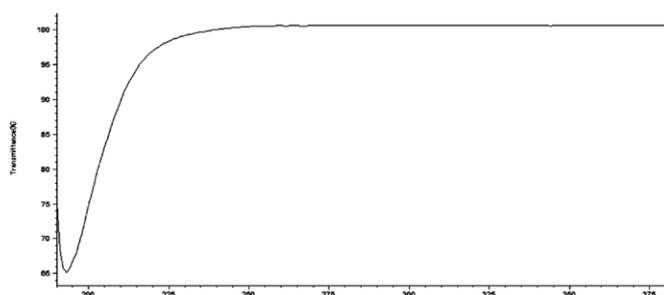
#### Fluorescence (as quinine)

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1090-G500ML | Glass   | 500 ML  |
| LC1090-G1L    | Glass   | 1 Litre |

|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Product passed through 0.2 micron final filter.



| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1090-G2.5L | Glass   | 2.5 Litre |
| LC1090-G4L   | Glass   | 4 Litre   |

### Hexanes, HPLC Plus

LC1226

#### Specifications

|   |                            |      |
|---|----------------------------|------|
| Assay (by GC. : Total C <sub>6</sub> Isomers) | 99.5%                      | min. |
| Appearance                                    | Clear and colorless liquid |      |
| Identity (IR)                                 | Passes test                |      |
| Color (APHA)                                  | 10                         | max. |
| Water (by Coulometry)                         | 0.01%                      | max. |
| Acidity (mEq./g.)                             | 0.0005                     | max. |
| Residue on Evaporation                        | 0.0003%                    | max. |
| Substances darkened by sulfuric acid          | Passes test                |      |
| UV Transmission Levels (%T)                   |                            |      |
| 240 nm  | 99%                        | min. |
| 230 nm  | 98%                        | min. |
| 220 nm  | 90%                        | min. |
| 210 nm  | 70%                        | min. |
| 200 nm  | 50%                        | min. |

#### Fluorescence (as quinine)

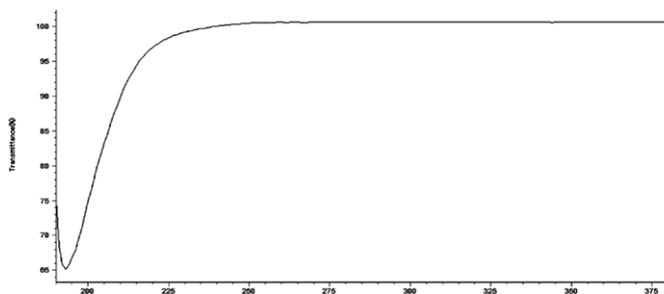
|           |   |          |
|-----------|---|----------|
| at 254 nm | 1 | ppb max. |
| at 365 nm | 1 | ppb max. |

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1226-G500ML | Glass   | 500 ML  |
| LC1226-G1L    | Glass   | 1 Litre |

|              |      |
|--------------|------|
| Silicone oil | Free |
| DOP          | Free |
| Amide        | Free |

Total isomers : n-Hexane , Methylpentane , Methylcyclopentane and Dimethylbutane.

Product passed through 0.2 micron final filter.



| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1226-G2.5L | Glass   | 2.5 Litre |
| LC1226-G4L   | Glass   | 4 Litre   |

## Hexane Fraction, HPLC

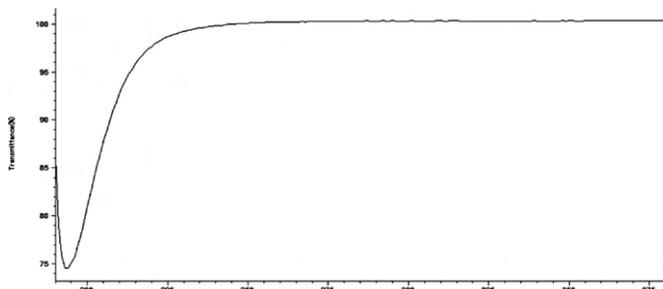
LC1088

### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 45.0%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.01%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0003%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 95%                        | min. |
| 220 nm                      | 80%                        | min. |
| 210 nm                      | 60%                        | min. |

|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 254 nm                 | 1 | ppb max. |
| at 365 nm                 | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1088-G500ML | Glass   | 500 ML  |
| LC1088-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1088-G2.5L | Glass   | 2.5 Litre |
| LC1088-G4L   | Glass   | 4 Litre   |

## Methanol

|                    |           |
|--------------------|-----------|
| CH <sub>3</sub> OH | FW. 32.04 |
| CAS-No.            | 67-56-1   |
| Density 1 L        | 0.790 Kg. |

|               |         |
|---------------|---------|
| Melting Point | -98 °C  |
| Boiling Point | 64.5 °C |



## Methanol, HPLC

LC1115

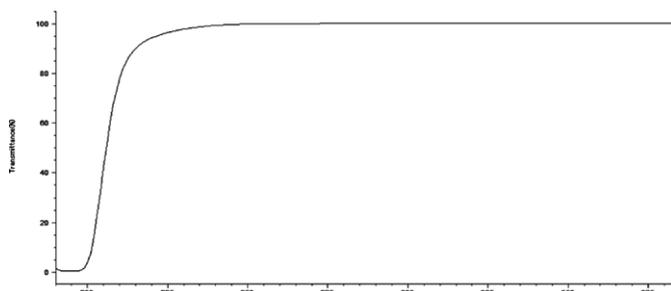
### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.9%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.05%                      | max. |
| Acidity (mEq./g.)                    | 0.0003                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Acetaldehyde (GC.)                   | 0.001%                     | max. |
| Acetone (GC.)                        | 0.001%                     | max. |
| Carbonyl Compounds                   | 0.001%                     | max. |
| Formaldehyde (GC.)                   | 0.001%                     | max. |
| Solubility in water                  | Passes test                |      |
| Substances reducing permanganate     | Passes test                |      |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |

|        |     |      |
|--------|-----|------|
| 230 nm | 80% | min. |
| 220 nm | 70% | min. |
| 210 nm | 60% | min. |

|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 254 nm                 | 1 | ppb max. |
| at 365 nm                 | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1115-G500ML | Glass   | 500 ML  |
| LC1115-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1115-G2.5L | Glass   | 2.5 Litre |
| LC1115-G4L   | Glass   | 4 Litre   |

Methanol, HPLC Plus

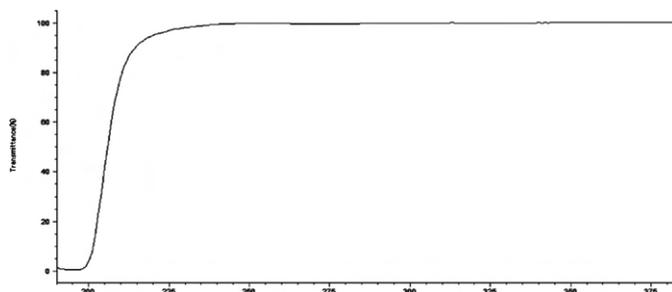
LC1224

Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.9%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.05%                      | max. |
| Acidity (mEq./g.)                    | 0.0003                     | max. |
| Alkalinity (mEq./g.)                 | 0.0002                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Acetaldehyde (GC.)                   | 0.001%                     | max. |
| Acetone (GC.)                        | 0.001%                     | max. |
| Carbonyl Compounds                   | 0.001%                     | max. |
| Formaldehyde (GC.)                   | 0.001%                     | max. |
| Solubility in water                  | passes test                |      |
| Substances reducing permanganate     | passes test                |      |
| Substances darkened by sulfuric acid | passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 80%                        | min. |

|                           |      |          |
|---------------------------|------|----------|
| 220 nm                    | 70%  | min      |
| 210 nm                    | 60%  | min.     |
| Fluorescence (as quinine) |      |          |
| at 254 nm                 | 1    | ppb max. |
| at 365 nm                 | 1    | ppb max. |
| Silicone oil              | Free |          |
| DOP                       | Free |          |
| Amide                     | Free |          |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1224-G500ML | Glass   | 500 ML  |
| LC1224-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1224-G2.5L | Glass   | 2.5 Litre |
| LC1224-G4L   | Glass   | 4 Litre   |



## Methyl-t-Butyl Ether

|   |           |               |           |   |
|---|-----------|---------------|-----------|---|
| CH <sub>3</sub> OC(CH <sub>3</sub> ) <sub>3</sub> | FW. 88.15 | Melting Point | -108.6 °C |  |
| CAS-No.   | 1634-04-4 | Boiling Point | 55.3 °C   |   |
| Density 1 L                                       | 0.740 Kg. |               |           |   |

### Methyl-t-Butyl Ether, HPLC

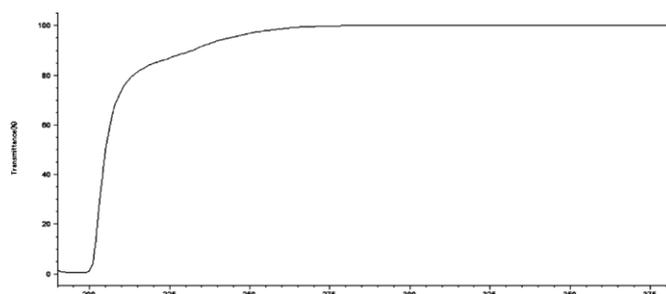
LC1125

#### Specifications

|  |                            |          |
|--|----------------------------|----------|
| Assay (by GC.)                               | 99.8%                      | min.     |
| Appearance                                   | Clear and colorless liquid |          |
| Identity (IR)                                | Passes test                |          |
| Color (APHA)                                 | 10                         | max.     |
| Water (by Coulometry)                        | 0.02%                      | max.     |
| Acidity (mEq./g.)                            | 0.0002                     | max.     |
| Alkalinity (mEq./g.)                         | 0.0002                     | max.     |
| Residue on Evaporation                       | 0.0002%                    | max.     |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ) | 1                          | ppm max. |
| UV Transmission Levels (%T)                  |                            |          |
| 280 nm                                       | 99%                        | min.     |
| 270 nm                                       | 98%                        | min.     |
| 260 nm                                       | 90%                        | min.     |
| 255 nm                                       | 85%                        | min.     |

|                           |     |          |
|---------------------------|-----|----------|
| 240 nm                    | 60% | min.     |
| Fluorescence (as quinine) |     |          |
| at 365 nm                 | 1   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1125-G500ML | Glass   | 500 ML  |
| LC1125-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1125-G2.5L | Glass   | 2.5 Litre |
| LC1125-G4L   | Glass   | 4 Litre   |

## Methyl Ethyl Ketone

|   |           |               |         |   |
|---|-----------|---------------|---------|---|
| C <sub>2</sub> H <sub>5</sub> COCH <sub>3</sub> | FW. 72.11 | Melting Point | -86 °C  |  |
| CAS-No.   | 78-93-3   | Boiling Point | 79.6 °C |   |
| Density 1 L                                     | 0.805 Kg. |               |         |   |

### Methyl Ethyl Ketone, HPLC

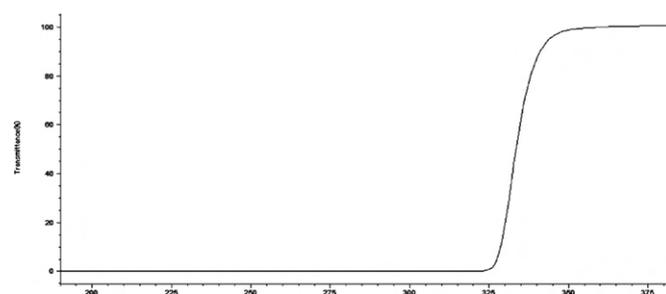
LC1122

#### Specifications

|                             |              |      |
|-----------------------------|--------------|------|
| Assay (by GC.)              | 99.8%        | min. |
| Appearance                  | Clear liquid |      |
| Identity (IR)               | Passes test  |      |
| Color (APHA)                | 10           | max. |
| Water (by Coulometry)       | 0.05%        | max. |
| Acidity (mEq./g.)           | 0.0005       | max. |
| Residue on Evaporation      | 0.0003%      | max. |
| UV Transmission Levels (%T) |              |      |
| 360 nm                      | 99%          | min. |
| 350 nm                      | 98%          | min. |
| 340 nm                      | 85%          | min. |
| 335 nm                      | 50%          | min. |

|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 365 nm                 | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1122-G500ML | Glass   | 500 ML  |
| LC1122-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1122-G2.5L | Glass   | 2.5 Litre |
| LC1122-G4L   | Glass   | 4 Litre   |

## n-Methyl-2-Pyrrolidone

|             |           |
|-------------|-----------|
| $C_5H_9NO$  | FW. 99.13 |
| CAS-No.     | 872-50-4  |
| Density 1 L | 1.030 Kg. |

|               |        |
|---------------|--------|
| Melting Point | -24 °C |
| Boiling Point | 202 °C |



### n-Methyl-2-Pyrrolidone, HPLC

LC1123

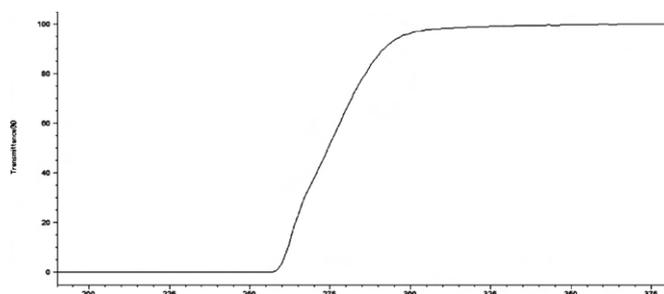
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.5%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.05%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 350 nm                      | 99%                        | min. |
| 330 nm                      | 95%                        | min. |
| 310 nm                      | 80%                        | min. |
| 290 nm                      | 70%                        | min. |
| 280 nm                      | 50%                        | min. |

#### Fluorescence (as quinine)

at 365 nm                      1                      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1123-G500ML | Glass   | 500 ML  |
| LC1123-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1123-G2.5L | Glass   | 2.5 Litre |
| LC1123-G4L   | Glass   | 4 Litre   |

## n-Pentane

|                    |           |
|--------------------|-----------|
| $CH_3(CH_2)_3CH_3$ | FW. 72.15 |
| CAS-No.            | 109-66-0  |
| Density 1 L        | 0.630 Kg. |

|               |           |
|---------------|-----------|
| Melting Point | -129.7 °C |
| Boiling Point | 36.1 °C   |



### n-Pentane 95%, HPLC

LC1145

#### Specifications

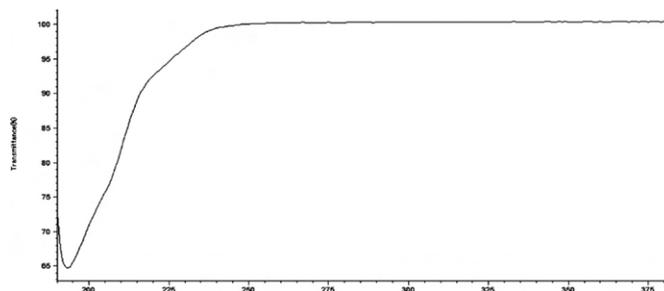
|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 95.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 95%                        | min. |
| 220 nm                               | 85%                        | min. |
| 210 nm                               | 60%                        | min. |

#### Fluorescence (as quinine)

at 254 nm                      1                      ppb max.

at 365 nm                      1                      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1145-G500ML | Glass   | 500 ML  |
| LC1145-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1145-G2.5L | Glass   | 2.5 Litre |
| LC1145-G4L   | Glass   | 4 Litre   |

**n-Pentane 99%, HPLC**

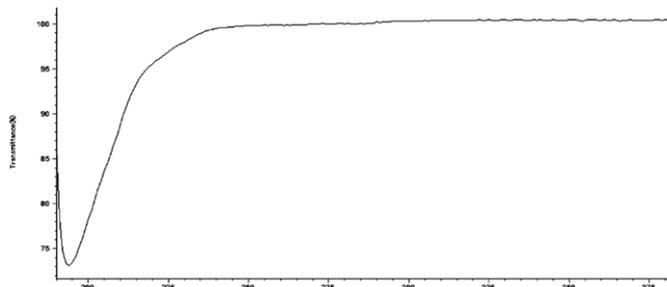
LC1146

**Specifications**

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.0%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0005                     | max. |
| Residue on Evaporation               | 0.0003%                    | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 250 nm                               | 99%                        | min. |
| 240 nm                               | 98%                        | min. |
| 230 nm                               | 95%                        | min. |
| 220 nm                               | 85%                        | min. |
| 210 nm                               | 60%                        | min. |

|                           |   |          |
|---------------------------|---|----------|
| Fluorescence (as quinine) |   |          |
| at 254 nm                 | 1 | ppb max. |
| at 365 nm                 | 1 | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1146-G500ML | Glass   | 500 ML  |
| LC1146-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1146-G2.5L | Glass   | 2.5 Litre |
| LC1146-G4L   | Glass   | 4 Litre   |

**Petroleum Ether 40 - 60**

|             |                 |               |          |
|-------------|-----------------|---------------|----------|
| CAS-No.     | 64742-49-0      | Boiling Point | 40-60 °C |
| Density 1 L | 0.645-0.665 Kg. |               |          |



**Petroleum Ether 40 - 60, HPLC**

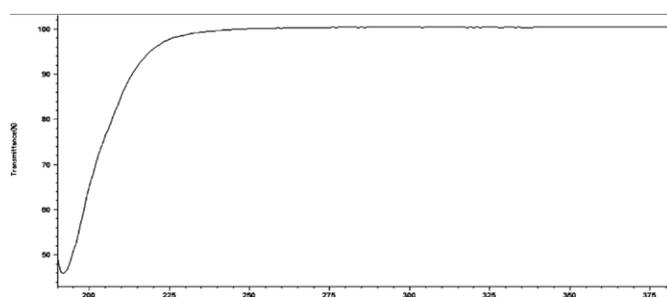
LC1147

**Specifications**

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.01%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| Sulfur Compounds (S)        | 0.002%                     | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 90%                        | min. |
| 220 nm                      | 80%                        | min. |
| 210 nm                      | 60%                        | min. |

|        |     |      |
|--------|-----|------|
| 210 nm | 60% | min. |
|--------|-----|------|

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1147-G500ML | Glass   | 500 ML  |
| LC1147-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1147-G2.5L | Glass   | 2.5 Litre |
| LC1147-G4L   | Glass   | 4 Litre   |

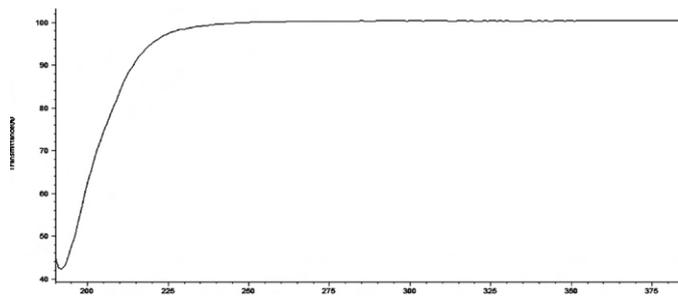
**Petroleum Ether 40 - 60, HPLC Plus** LC1305

**Specifications**

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.01%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| Sulfur Compounds (S)        | 0.002%                     | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 90%                        | min. |
| 220 nm                      | 80%                        | min. |
| 210 nm                      | 60%                        | min. |

|              |      |
|--------------|------|
| Silicone oil | Free |
| DOP          | Free |
| Amide        | Free |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1305-G500ML | Glass   | 500 ML  |
| LC1305-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1305-G2.5L | Glass   | 2.5 Litre |
| LC1305-G4L   | Glass   | 4 Litre   |

**Petroleum Ether 60 - 80**

CAS-No. 64742-49-0      Boiling Point 60-80 °C  
 Density 1 L 0.680 Kg.



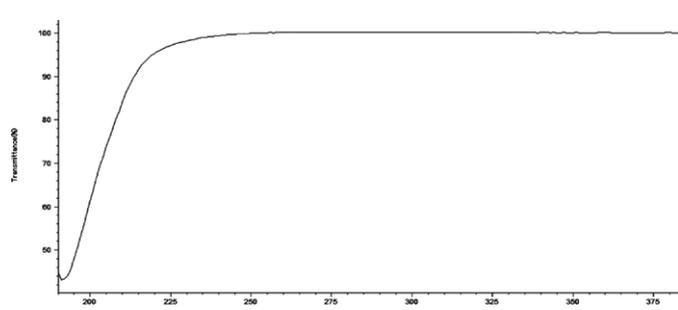
**Petroleum Ether 60 - 80, HPLC** LC1148

**Specifications**

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.02%                      | max. |
| Acidity (mEq./g.)           | 0.0005                     | max. |
| Residue on Evaporation      | 0.0005%                    | max. |
| Sulfur Compounds (S)        | 0.002%                     | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 90%                        | min. |
| 220 nm                      | 80%                        | min. |
| 210 nm                      | 60%                        | min. |

|        |     |      |
|--------|-----|------|
| 210 nm | 60% | min. |
|--------|-----|------|

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1148-G500ML | Glass   | 500 ML  |
| LC1148-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1148-G2.5L | Glass   | 2.5 Litre |
| LC1148-G4L   | Glass   | 4 Litre   |

## Propan-1-ol

|  |           |
|--|-----------|
| CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> OH | FW. 60.10 |
| CAS-No.  | 71-23-8   |
| Density 1 L  | 0.804 Kg. |

|               |         |
|---------------|---------|
| Melting Point | -127 °C |
| Boiling Point | 97 °C   |



### Propan-1-ol, HPLC

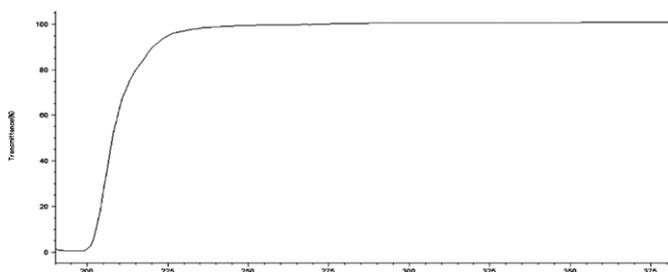
LC1161

#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.8%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.02%                      | max. |
| Acidity (mEq./g.)           | 0.0002                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| UV Transmission Levels (%T) |                            |      |
| 300 nm                      | 99%                        | min. |
| 270 nm                      | 98%                        | min. |
| 250 nm                      | 90%                        | min. |
| 240 nm                      | 80%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 230 nm                    | 70% | min.     |
| Fluorescence (as quinine) |     |          |
| at 365 nm                 | 1   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1161-G500ML | Glass   | 500 ML  |
| LC1161-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1161-G2.5L | Glass   | 2.5 Litre |
| LC1161-G4L   | Glass   | 4 Litre   |

## Propan-2-ol

|                                      |           |
|--------------------------------------|-----------|
| (CH <sub>3</sub> ) <sub>2</sub> CHOH | FW. 60.10 |
| CAS-No.                              | 67-63-0   |
| Density 1 L                          | 0.786 Kg. |

|               |          |
|---------------|----------|
| Melting Point | -89.5 °C |
| Boiling Point | 82.4 °C  |



### Propan-2-ol, HPLC

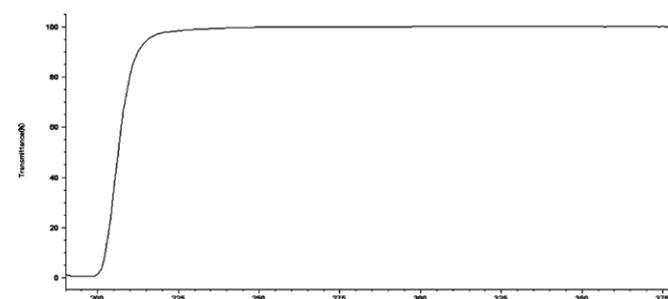
LC1162

#### Specifications

|  |                            |      |
|--|----------------------------|------|
| Assay (by GC.)                                     | 99.9%                      | min. |
| Appearance   | Clear and colorless liquid |      |
| Identity (IR)                                      | Passes test                |      |
| Color (APHA)                                       | 10                         | max. |
| Water (by Coulometry)                              | 0.03%                      | max. |
| Acidity (mEq./g.)                                  | 0.0005                     | max. |
| Alkalinity (mEq./g.)                               | 0.0002                     | max. |
| Residue on Evaporation                             | 0.0003%                    | max. |
| Carbonyl Compounds (as propionaldehyde or acetone) | 0.002%                     | max. |
| Solubility in water                                | Passes test                |      |
| UV Transmission Levels (%T)                        |                            |      |
| 250 nm   | 99%                        | min. |
| 240 nm   | 98%                        | min. |
| 230 nm   | 80%                        | min. |
| 220 nm   | 60%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 210 nm                    | 40% | min.     |
| Fluorescence (as quinine) |     |          |
| at 254 nm                 | 1   | ppb max. |
| at 365 nm                 | 1   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1162-G500ML | Glass   | 500 ML  |
| LC1162-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1162-G2.5L | Glass   | 2.5 Litre |
| LC1162-G4L   | Glass   | 4 Litre   |

## Propan-2-ol, HPLC Plus

LC1163

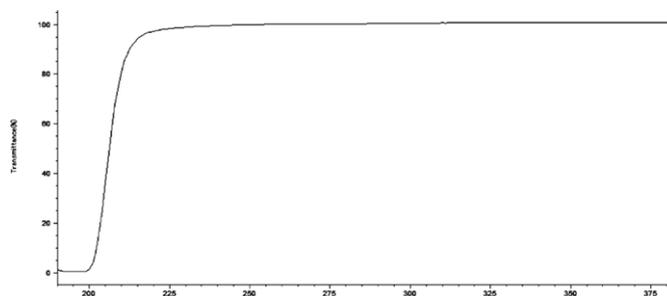
## Specifications

|  |                            |      |
|--|----------------------------|------|
| Assay (by GC.)                                     | 99.9%                      | min. |
| Appearance   | Clear and colorless liquid |      |
| Identity (IR)                                      | Passes test                |      |
| Color (APHA)                                       | 10                         | max. |
| Water (by Coulometry)                              | 0.03%                      | max. |
| Acidity (mEq./g.)                                  | 0.0005                     | max. |
| Alkalinity (mEq./g.)                               | 0.0002                     | max. |
| Residue on Evaporation                             | 0.0003%                    | max. |
| Carbonyl Compounds (as propionaldehyde or acetone) | 0.002%                     | max. |
| Solubility in water                                | Passes test                |      |
| UV Transmission Levels (%T)                        |                            |      |
| 250 nm   | 99%                        | min. |
| 240 nm   | 98%                        | min. |
| 230 nm   | 80%                        | min. |
| 220 nm   | 60%                        | min. |
| 210 nm   | 40%                        | min. |

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1163-G500ML | Glass   | 500 ML  |
| LC1163-G1L    | Glass   | 1 Litre |

| Fluorescence (as quinine) |      |          |  |
|---------------------------|------|----------|--|
| at 254 nm                 | 1    | ppb max. |  |
| at 365 nm                 | 1    | ppb max. |  |
| Silicone oil              | Free |          |  |
| DOP                       | Free |          |  |
| Amide                     | Free |          |  |

Product passed through 0.2 micron final filter.



| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1163-G2.5L | Glass   | 2.5 Litre |
| LC1163-G4L   | Glass   | 4 Litre   |

## Tetrahydrofuran

|             |           |
|-------------|-----------|
| $C_4H_8O$   | FW. 72.11 |
| CAS-No.     | 109-99-9  |
| Density 1 L | 0.890 Kg. |

|               |           |
|---------------|-----------|
| Melting Point | -108.5 °C |
| Boiling Point | 65-66 °C  |



## Tetrahydrofuran, HPLC

LC1200

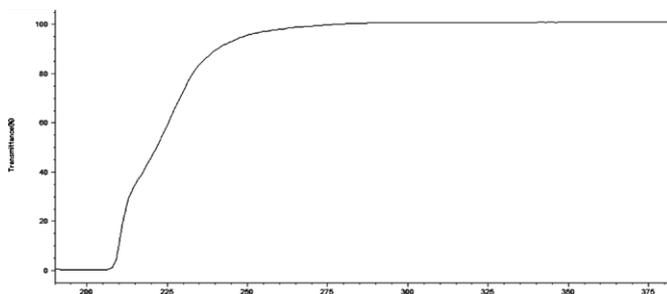
## Specifications

|  |                            |      |
|--|----------------------------|------|
| Assay (by GC.)   | 99.9%                      | min. |
| Appearance   | Clear and colorless liquid |      |
| Identity (IR)  | Passes test                |      |
| Color (APHA)   | 10                         | max. |
| Water (by Coulometry)                                  | 0.02%                      | max. |
| Acidity (mEq./g.)                                      | 0.0002                     | max. |
| Alkalinity (mEq./g.)                                   | 0.0002                     | max. |
| Residue on Evaporation                                 | 0.0001%                    | max. |
| Peroxide (as $H_2O_2$ ) (at the time of manufacturing) | 0.005%                     | max. |
| UV Transmission Levels (%T)                            |                            |      |
| 280 nm   | 99%                        | min. |
| 250 nm   | 80%                        | min. |
| 240 nm   | 70%                        | min. |
| 230 nm   | 35%                        | min. |
| 218 nm   | 30%                        | min. |

| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1200-G500ML | Glass   | 500 ML  |
| LC1200-G1L    | Glass   | 1 Litre |

| Fluorescence (as quinine) |   |          |  |
|---------------------------|---|----------|--|
| at 254 nm                 | 1 | ppb max. |  |
| at 365 nm                 | 1 | ppb max. |  |

Product passed through 0.2 micron final filter.



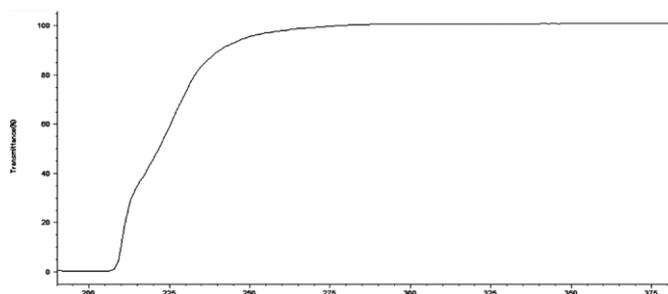
| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1200-G2.5L | Glass   | 2.5 Litre |
| LC1200-G4L   | Glass   | 4 Litre   |

## Tetrahydrofuran, HPLC

LC1203B

### Specifications

|  |                            |      |
|--|----------------------------|------|
| Assay (by GC.)   | 99.9%                      | min. |
| Appearance   | Clear and colorless liquid |      |
| Identity (IR)  | Passes test                |      |
| Color (APHA)   | 10                         | max. |
| Water (by Coulometry)  | 0.02%                      | max. |
| Acidity (mEq./g.)  | 0.0005                     | max. |
| Alkalinity (mEq./g.)   | 0.0002                     | max. |
| Residue on Evaporation   | 0.001%                     | max. |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> )<br>(at the time of manufacturing) | 0.005%                     | max. |



Stabilized with about 250 ppm BHT.

Product passed through 0.2 micron final filter.

| Cat No.        | Package | Size    |
|----------------|---------|---------|
| LC1203B-G500ML | Glass   | 500 ML  |
| LC1203B-G1L    | Glass   | 1 Litre |

| Cat No.       | Package | Size      |
|---------------|---------|-----------|
| LC1203B-G2.5L | Glass   | 2.5 Litre |
| LC1203B-G4L   | Glass   | 4 Litre   |

## Toluene

|   |           |
|---|-----------|
| C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> | FW. 92.14 |
| CAS-No.                                       | 108-88-3  |
| Density 1 L                                   | 0.870 Kg. |

|               |          |
|---------------|----------|
| Melting Point | -95 °C   |
| Boiling Point | 110.6 °C |



## Toluene, HPLC

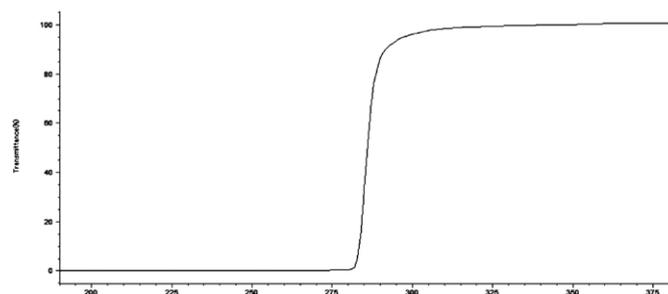
LC1347

### Specifications

|                                      |                            |      |
|--------------------------------------|----------------------------|------|
| Assay (by GC.)                       | 99.8%                      | min. |
| Appearance                           | Clear and colorless liquid |      |
| Identity (IR)                        | Passes test                |      |
| Color (APHA)                         | 10                         | max. |
| Water (by Coulometry)                | 0.01%                      | max. |
| Acidity (mEq./g.)                    | 0.0002                     | max. |
| Alkalinity (mEq./g.)                 | 0.0004                     | max. |
| Residue on Evaporation               | 0.0005%                    | max. |
| Sulfur Compounds (S)                 | 0.003%                     | max. |
| Substances darkened by sulfuric acid | Passes test                |      |
| UV Transmission Levels (%T)          |                            |      |
| 350 nm                               | 99%                        | min. |
| 330 nm                               | 98%                        | min. |
| 310 nm                               | 90%                        | min. |

|                           |     |          |
|---------------------------|-----|----------|
| 300 nm                    | 80% | min.     |
| 290 nm                    | 50% | min.     |
| Fluorescence (as quinine) |     |          |
| at 365 nm                 | 2   | ppb max. |

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1347-G500ML | Glass   | 500 ML  |
| LC1347-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1347-G2.5L | Glass   | 2.5 Litre |
| LC1347-G4L   | Glass   | 4 Litre   |

## Trichloroethylene

|                       |            |
|-----------------------|------------|
| Cl <sub>2</sub> CCHCl | FW. 131.79 |
| CAS-No.               | 79-01-6    |
| Density 1 L           | 1.460 Kg.  |

|               |         |
|---------------|---------|
| Melting Point | - 86 °C |
| Boiling Point | 87 °C   |



### Trichloroethylene, HPLC

**LC1205**
**Specifications**

|                |       |      |
|----------------|-------|------|
| Assay (by GC.) | 99.8% | min. |
|----------------|-------|------|

|            |                            |  |
|------------|----------------------------|--|
| Appearance | Clear and colorless liquid |  |
|------------|----------------------------|--|

|               |             |  |
|---------------|-------------|--|
| Identity (IR) | Passes test |  |
|---------------|-------------|--|

|              |    |      |
|--------------|----|------|
| Color (APHA) | 10 | max. |
|--------------|----|------|

|                       |       |      |
|-----------------------|-------|------|
| Water (by Coulometry) | 0.01% | max. |
|-----------------------|-------|------|

|                   |        |      |
|-------------------|--------|------|
| Acidity (mEq./g.) | 0.0005 | max. |
|-------------------|--------|------|

|                        |         |      |
|------------------------|---------|------|
| Residue on Evaporation | 0.0005% | max. |
|------------------------|---------|------|

**UV Transmission Levels (%T)**

|        |     |      |
|--------|-----|------|
| 400 nm | 98% | min. |
|--------|-----|------|

|        |     |      |
|--------|-----|------|
| 350 nm | 85% | min. |
|--------|-----|------|

|        |     |      |
|--------|-----|------|
| 320 nm | 80% | min. |
|--------|-----|------|

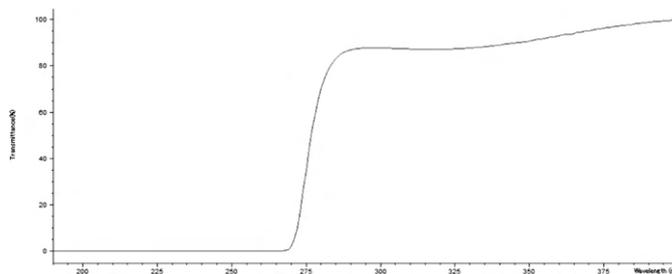
|        |     |      |
|--------|-----|------|
| 300 nm | 70% | min. |
|--------|-----|------|

|        |     |      |
|--------|-----|------|
| 280 nm | 50% | min. |
|--------|-----|------|

**Fluorescence (as quinine)**

|           |   |          |
|-----------|---|----------|
| at 365 nm | 1 | ppb max. |
|-----------|---|----------|

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1205-G500ML | Glass   | 500 ML  |
| LC1205-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1205-G2.5L | Glass   | 2.5 Litre |
| LC1205-G4L   | Glass   | 4 Litre   |



## 2,2,4-Trimethylpentane

(CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>C(CH<sub>3</sub>)<sub>3</sub>      FW. 114.23  
 CAS-No.                                      540-84-1  
 Density 1 L                                    0.690 Kg.

Melting Point                                -107 °C  
 Boiling Point                                 99 °C



### 2,2,4-Trimethylpentane, HPLC

LC1206

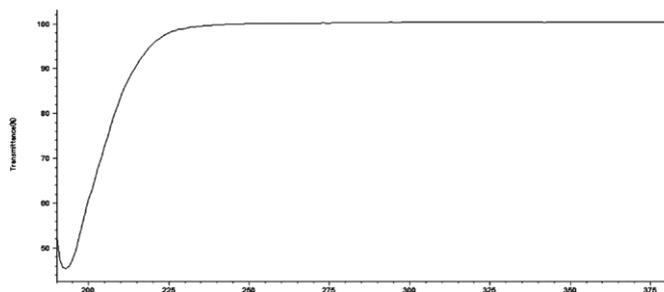
#### Specifications

|                             |                            |      |
|-----------------------------|----------------------------|------|
| Assay (by GC.)              | 99.5%                      | min. |
| Appearance                  | Clear and colorless liquid |      |
| Identity (IR)               | Passes test                |      |
| Color (APHA)                | 10                         | max. |
| Water (by Coulometry)       | 0.01%                      | max. |
| Acidity (mEq./g.)           | 0.0002                     | max. |
| Alkalinity (mEq./g.)        | 0.0002                     | max. |
| Residue on Evaporation      | 0.0002%                    | max. |
| Sulfur Compounds (S)        | 0.005%                     | max. |
| UV Transmission Levels (%T) |                            |      |
| 250 nm                      | 99%                        | min. |
| 240 nm                      | 98%                        | min. |
| 230 nm                      | 95%                        | min. |
| 220 nm                      | 80%                        | min. |
| 210 nm                      | 50%                        | min. |

#### Fluorescence (as quinine)

at 365 nm                                      1                                      ppb max.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    |
|---------------|---------|---------|
| LC1206-G500ML | Glass   | 500 ML  |
| LC1206-G1L    | Glass   | 1 Litre |

| Cat No.      | Package | Size      |
|--------------|---------|-----------|
| LC1206-G2.5L | Glass   | 2.5 Litre |
| LC1206-G4L   | Glass   | 4 Litre   |

## Water

|                  |           |               |        |
|------------------|-----------|---------------|--------|
| H <sub>2</sub> O | FW. 18.02 | Melting Point | 0 °C   |
| CAS-No.          | 7732-18-5 | Boiling Point | 100 °C |
| Density 1 L      | 1.000 Kg. |               |        |

### Water, HPLC

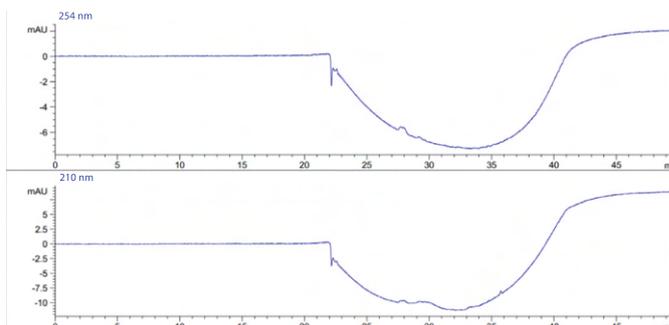
LC1210

#### Specifications

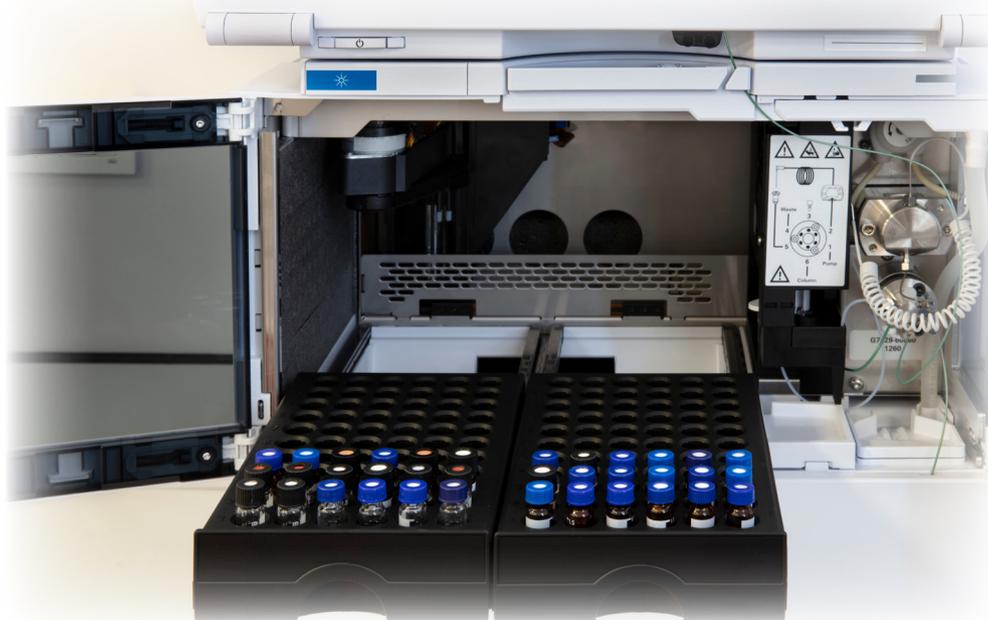
|  |                            |          |
|--|----------------------------|----------|
| Appearance   | Clear and colorless liquid |          |
| Residue on Evaporation   | 0.0005%                    | max.     |
| Conductivity (at the time of manufacturing), $\mu\text{S}/\text{cm}$ | 1                          | max.     |
| Gradient Specification 254 nm  |                            |          |
| Largest peak   | 1                          | mAU max. |
| Fluorescence (as quinine)  |                            |          |
| at 254 nm  | 1                          | ppb max. |
| at 365 nm  | 0.5                        | ppb max. |

Determined by a 40 ml sample enrichment of C18 column followed by a gradient from 100% water to 100% acetonitrile at a rate of 5% per minute and a flow rate of 1 ml/min.

Product passed through 0.2 micron final filter.



| Cat No.       | Package | Size    | Cat No.      | Package | Size      |
|---------------|---------|---------|--------------|---------|-----------|
| LC1210-G500ML | Glass   | 500 ML  | LC1210-G2.5L | Glass   | 2.5 Litre |
| LC1210-G1L    | Glass   | 1 Litre | LC1210-G4L   | Glass   | 4 Litre   |



## HAZARDOUS TRANSPORTATION AND HANDLING CONCERNS

Hazardous materials are classified by the tariff system. It is important for international shipment of hazardous materials. It is shown in IMDG code (International Maritime Organization of the UN). Transportation of dangerous Substances as following according to Recommendation on the Transport of Dangerous Goods, Model Regulation, Sixteenth revised edition, United Nations.

| No. | CLASS                            | Division  | Pictogram   |
|-----|----------------------------------|---|---|
| 1   | Explosive substances or articles | 1.1 Substance and article which have a mass explosion hazard  |    |
|     |                                  | 1.2 Substances and articles which have a projection hazard but not a mass explosion hazard  |    |
|     |                                  | 1.3 Substance and article which have a fire hazard and either a minor 6 post hazard or a minor projection hazard or both, but not a mass explosion hazard |   |
|     |                                  | 1.4 Substance and article which present no significant hazard   |    |
|     |                                  | 1.5 Very insensitive substances which have a mass explosion hazard  |    |
|     |                                  | 1.6 Extremely insensitive articles which do not have a mass explosion hazard  |    |
| 2   | Gases                            | 2.1) Flammable gases  |   |
|     |                                  | 2.2) Non-flammable, non-toxic gases   |   |
|     |                                  | 2.3) Toxic gases  |    |
| 3   | Flammable liquids                |   |   |

| No. | CLASS  | Division  | Pictogram   |
|-----|--|---|---|
| 4   | Flammable solids; substances liable to spontaneous combustion; substances which, on contact with water, emit flammable gases | 4.1) Flammable solid, self-reactive substances, solid desensitized explosives and polymerizing substances |    |
|     |  | 4.2) Substances liable to spontaneous combustion  |    |
|     |  | 4.3) Substances which, in contact with water, emit flammable gases  |    |
| 5   | Oxidizing substances and organic peroxides   | 5.1) Oxidizing substances   |    |
|     |  | 5.2) Organic peroxides  |    |
| 6   | Toxic and infectious substances  | 6.1) Toxic substances   |   |
|     |  | 6.2) Infectious substances  |  |
| 7   | Radioactive material   |   |  |
| 8   | Corrosive substances   |   |  |
| 9   | Miscellaneous dangerous substances and articles, including environmentally hazardous substances                              |   |  |



# The GHS Hazard Grouping



## The Physical Hazard

| GHS signs  | Description  | Product Samples  |
|--|--|--|
| <br><b>Flammable</b>        | <ul style="list-style-type: none"> <li>• Self-Reactive Substances</li> <li>• Pyrophorics (Liquids, Solids)</li> <li>• Self-Heating Substances</li> <li>• Organic Peroxides</li> <li>• Desensitized Explosives</li> <li>• Flammables (Gases, Aerosols, Liquids and Solids)</li> <li>• Substances which no contact with Water Emit</li> <li>• Flammable Gases</li> </ul> | <ul style="list-style-type: none"> <li>• Acetic Acid Glacial</li> <li>• Acetone</li> <li>• Acetonitrile</li> <li>• Butan-1-ol</li> <li>• n-Butyl Acetate</li> <li>• 1-Chlorobutane</li> <li>• Cyclohexane</li> <li>• 1,2-Dichloroethane</li> <li>• Diethyl Ether</li> <li>• Dimethylformamide</li> <li>• 1,4-Dioxan</li> <li>• Ethanol</li> <li>• Ethyl Acetate</li> <li>• n-Heptane</li> <li>• n-Hexane</li> <li>• Hexanes</li> <li>• Methanol</li> <li>• Methyl-t-Butyl Ether</li> <li>• Methyl Ethyl Ketone</li> <li>• n-Pentane</li> <li>• Petroleum Ether 40-60</li> <li>• Petroleum Ether 60-80</li> <li>• Propan-1-ol</li> <li>• Propan-2-ol</li> <li>• Tetrahydrofuran</li> <li>• Toluene</li> <li>• 2,2,4-Trimethylpentane</li> </ul> |
| <br><b>Oxidizing</b>       | <ul style="list-style-type: none"> <li>• Oxidizing (Gases, Liquids, Solids)</li> </ul>   | -  |
| <br><b>Corrosive</b>      | <ul style="list-style-type: none"> <li>• Substances Corrosive to Metal</li> </ul>  | <ul style="list-style-type: none"> <li>• Acetic Acid Glacial</li> </ul>  |
| <br><b>Explosive</b>      | <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactive Substances</li> <li>• Organic Peroxides</li> </ul>  | -  |
| <br><b>Compressed gas</b> | <ul style="list-style-type: none"> <li>• Gases Under Pressure</li> </ul>   | -  |



## The Health Hazard

| GHS signs  | Description   | Product Samples  |
|--|---|--|
| <br><b>Human Health</b> | <ul style="list-style-type: none"> <li>Germ Cell Mutagenicity</li> <li>Carcinogenicity</li> <li>Toxic to Reproduction</li> <li>Aspiration Toxicity</li> <li>Specific Target Organ/Systemic Toxicity - Single Exposure</li> <li>Specific Target Organ/Systemic Toxicity - Repeated Exposure</li> </ul> | <ul style="list-style-type: none"> <li>Chloroform</li> <li>Cyclohexane</li> <li>1,2-Dichloroethane</li> <li>Dichloromethane</li> <li>Dimethylacetamide</li> <li>Dimethylformamide</li> <li>1,4-Dioxan</li> <li>n-Heptane</li> <li>n-Hexane</li> <li>Hexanes</li> <li>Methanol</li> <li>n-Methyl-2-Pyrrolidone</li> <li>n-Pentane</li> <li>Petroleum Ether 40-60</li> <li>Petroleum Ether 60-80</li> <li>Tetrahydrofuran</li> <li>Toluene</li> <li>Trichloroethylene</li> <li>2,2,4-Trimethylpentane</li> </ul>   |
| <br><b>Hazardous</b>    | <ul style="list-style-type: none"> <li>Acute Toxicity (Low)</li> <li>Eye Irritation</li> <li>Respiratory or Skin Sensitization</li> </ul>   | <ul style="list-style-type: none"> <li>Acetone</li> <li>Acetonitrile</li> <li>Butan-1-ol</li> <li>n-Butyl Acetate</li> <li>Cyclohexane</li> <li>Dichloromethane</li> <li>Diethyl Ether</li> <li>Dimethylacetamide</li> <li>Dimethylformamide</li> <li>1,4-Dioxan</li> <li>Ethanol</li> <li>Ethyl Acetate</li> <li>n-Heptane</li> <li>n-Hexane</li> <li>Hexanes</li> <li>Methyl Ethyl Ketone</li> <li>n-Methyl-2-Pyrrolidone</li> <li>Methyl-t-Butyl Ether</li> <li>Propan-1-ol</li> <li>Propan-2-ol</li> <li>n-Pentane</li> <li>Petroleum Ether 40-60</li> <li>Petroleum Ether 60-80</li> <li>Tetrahydrofuran</li> <li>Toluene</li> <li>Trichloroethylene</li> <li>2,2,4-Trimethylpentane</li> </ul> |
| <br><b>Corrosive</b>  | <ul style="list-style-type: none"> <li>Skin Corrosive/Irritation</li> <li>Serious Eye Damage/Eye Irritation</li> </ul>  | <ul style="list-style-type: none"> <li>Acetic Acid Glacial</li> <li>Butan-1-ol</li> <li>Propan-1-ol</li> </ul>   |
| <br><b>Toxic</b>      | <ul style="list-style-type: none"> <li>Acute Toxicity (High)</li> </ul>   | <ul style="list-style-type: none"> <li>Chloroform</li> <li>1,2-Dichloroethane</li> <li>Methanol</li> </ul>   |

## The Environmental Hazard

| GHS signs  | Description  | Product Samples  |
|--|--|--|
| <br><b>Environmental Hazard</b> | <ul style="list-style-type: none"> <li>Hazardous to the Aquatic Environment</li> <li>Hazardous to the Ozone Layer</li> </ul> | <ul style="list-style-type: none"> <li>Cyclohexane</li> <li>n-Heptane</li> <li>n-Hexane</li> <li>Hexanes</li> <li>n-Pentane</li> <li>Petroleum Ether 40-60</li> <li>Petroleum Ether 60-80</li> <li>2,2,4-Trimethylpentane</li> </ul> |





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