

Reagecon

Wine



Beverage Standards

Reagents and standards for the Wine Industry



Compendium of International Methods of Wine and Must Analysis Edition 2013
Volume 1
OIV - 18, Rue D'Aguesseau - 75008 Paris

Density at 20°C and specific gravity at 20°C measured using the hydrostatic balance

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|------------------------------------|-----------|
| 6.3.1 | S30WW1 | Sodium Hydroxide 30% w/w (40% w/v) | 1L |

Alkalinity of Ash

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.1 | SU20051 | Analytical Volumetric Solution Sulphuric Acid 0.1N, 0.05M | 1L |
| 3.2 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |

Folin-Ciocalteu Index Method OIV-MA-AS2-10

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|----------------------|-----------|
| 4.2 | SCS20WV1 | Sodium Carbonate 20% | 1L |

Reducing substances (Resolution Oeno 377/2009) Method OIV-MA-AS311-01A

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 3.1.1 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 4.1 | KI30WV1 | Potassium Iodide solution 30% w/v | 1L |
| 4.1 | T20101 | Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M | 1L |

Glucose and Fructose (Resolution Oeno 377/2009) Method OIV-MA-AS311-02

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4 | S25001 | Analytical Volumetric Solution Sodium Hydroxide 5.0N, 5.0M | 1L |

Alcoholic strength by volume (Resolution Oeno 377/2009)

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---------------------------------|-----------|
| 3.2 | CAOH2M105 | Calcium Hydroxide 2M suspension | 500ml |

Alcoholic strength by volume (Resolution Oeno 377/2009) Method OIV-MA-AS312-01B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---------------------------------|-----------|
| 3.2 | CAOH2M105 | Calcium Hydroxide 2M suspension | 500ml |

Methanol (Resolution Oeno 377/2009) Method OIV-MA-AS312-03B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---------------------------------|-----------|
| 2.1.6 | PP500F | Potassium Permanganate , 5% w/v | 1L |

Glycerol and 2,3-Butanediol (Resolution Oeno 377/2009) Method OIV-MA-AS312-04

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 3.5 | SU20051 | Analytical Volumetric Solution Sulphuric Acid 0.1N, 0.05M | 1L |
| 3.6 | SU200251 | Analytical Volumetric Solution Sulphuric Acid 0.05N, 0.025M | 1L |
| 3.7 | SU20501 | Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M | 1L |
| 3.8 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 6.1.1 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 6.1.2 | SU20501 | Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M | 1L |
| 6.1.6 | I20025F | Analytical Volumetric Solution Iodine 0.05N, 0.025M | 1L |
| 6.1.7 | KI10WV1 | Potassium Iodide, KI, 10% w/v | 1L |
| 6.1.8 | ST205 | Starch Indicator 2% | 500ml |

Total acidity Method OIV-MA-AS313-01

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4.1 | 1070 | pH Buffer Solution pH7.00 ± 0.01 @20°C | 1L |
| 4.2 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |
| 4.3 | BRTH05 | Indicator Solution Bromothymol Blue 0.04% | 500ml |

Volatile Acidity Method OIV-MA-AS313-02

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4.2 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |
| 4.3 | IPT1025 | Indicator Phenolphthalein 1% Phenolphthalein Solution | 250ml |
| 4.5 | I20005F | Analytical Volumetric Solution Iodine 0.01N, 0.005M | 1L |
| 4.9 | P2010F | Analytical Volumetric Solution Perchloric Acid in Acetic Acid 0.1N, 0.1M | 1L |
| 4.10 | CH6011 | Analytical Volumetric Solution Lactic Acid 0.1M | 1L |

Tartaric acid Method OIV-MA-AS313-05A

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.2.1 | ED20051 | Analytical Volumetric Solution EDTA 0.10N, 0.05M, | 1L |

Lactic acid Enzymatic method (Method OIV-MA-AS313-07)

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.1 | 1100 | pHBuffer Solution pH10.00 ± 0.01 @20°C | 1L |

Citric acid Chemical method (Method OIV-MA-AS313-08)

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3 | S22001 | Analytical Volumetric Solution Sodium Hydroxide 2.0N, 2.0M | 1L |
| 3 | PP2001F | Analytical Volumetric Solution Potassium Permanganate 0.05N, 0.01M | 1L |
| 3 | S25001 | Analytical Volumetric Solution Sodium Hydroxide 5.0N, 5.0M | 1L |
| 3 | I2001F | Analytical Volumetric Solution Iodine 0.01M 0.02N | 1L |
| 3 | T20021 | Analytical Volumetric Solution Sodium Thiosulphate 0.02N, 0.02M | 1L |

Total Malic Acid Method OIV-MA-AS313-10

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.3 | 1000401 | European Pharmacopoeia Reagent Acetic acid (30%) | 1L |

L-Malic acid Method OIV-MA-AS313-11

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.1 | 1100 | pHBuffer Solution pH10.00 ± 0.01 @20°C | 1L |

**Determination of shikimic acid in wine by HPLC and UV-detection
(Resolution Oeno 33.2004) Method OIV-MA-AS313-17**

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4.2 | SU20501 | Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M | 1L |
| 4.4 | SU20011 | Analytical Volumetric Solution Sulphuric Acid 0.02N, 0.01M | 1L |

Determination of the principal organic acids of wines and sulphates by capillary electrophoresis (Oeno 5/2006, extended by Oeno 407-2011) Method OIV-MA-AS313-19

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 6.2.4.2 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |

Determination of sorbic, benzoic, and salicylic acid content in wine by the use of high-performance liquid chromatography (Resolution Oeno 6/2006) Method OIV-MA-AS313-20

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 4.4 | H20101 | Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M | 1L |

Determination of the presence of metatartaric acid (Resolution Oeno 10/2007) Method OIV-MA-AS313-21

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4.2 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 4.3 | SU21001 | Analytical Volumetric Solution Sulphuric Acid 2.0N, 1.0M | 1L |

Carbon Dioxide with a range of concentration up to 1.5 g/L (A 39 modified by oeno 21/2003 and completed by resolution Oeno 3/2006 Method OIV-MA-AS314-01

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 2.1.2 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |
| 2.1.2 | SU20051 | Analytical Volumetric Solution Sulphuric Acid 0.1N, 0.05M | 1L |

Determination of carbon dioxide in wine by manometric method for a range of concentration from 0.5 g/L to 7 g/L (Resolution Oeno 2/2006) Method OIV-MA-AS314-04

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.5 | S10001 | Analytical Volumetric Solution Sodium Hydroxide 10N 10M | 1L |

Acetaldehyde (Resolution Oeno 377/2009) Method OIV-MA-AS315-01

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.4 | H25VVJ | Hydrochloric Acid 25%v/v pure | 2.5L |
| 3.5 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |

Ethyl Acetate Method OIV-MA-AS315002B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 2.1.1 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 2.1.4 | S20021 | Analytical Volumetric Solution Sodium Hydroxide 0.02N, 0.02M | 1L |
| 2.1.5 | IPT10W | Indicator Phenolphthalein Alcoholic Solution 1.0% | 2.5L |

Malvidin diglucoside Method OIV-MA-AS315-03

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.2.2 | H21001 | Analytical Volumetric Solution Hydrochloric Acid 1.0N, 1.0M | 1L |

Cyanide Derivatives (Resolution Oeno 4/94) Method OIV-MA-AS315-06

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.5 | KI10WV1 | Potassium Iodide, KI, 10% w/v | 1L |
| 3.6 | N20100F | Analytical Volumetric Solution Silver Nitrate 0.1N, 0.1M | 1L |

Examination of artificial sweeteners Method OIV-MA-AS315-07A

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---------------------------|-----------|
| 2.2.5 | HCLS115 | 50% v/v Hydrochloric Acid | 5L |

Examination of artificial sweeteners Method OIV-MA-AS315-07B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.2.5 | NO21001 | Analytical Volumetric Solution Nitric Acid 1.0N, 1.0M | 1L |

Measuring ochratoxine A in wine after going through an immunoaffinity column and HPLC with fluorescence detection (Oeno 16/2001 revised by Oeno 349-2011) Method OIV-MA-AS315-10

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--------------------------------|-----------|
| 3.1.6 | PBS7B025 | Phosphate Buffer Saline pH7.00 | 250ml |

Determination of plant proteins in wines and musts (Resolution Oeno 24/2004) Method OIV-MA-AS315-12

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.1.1.4 | S20501 | Analytical Volumetric Solution Sodium Hydroxide 0.5N, 0.5M | 1L |
| 2.1.1.5 | H20251 | Analytical Volumetric Solution Hydrochloric Acid 0.25N, 0.25M | 1L |
| 2.2.1.1 | H21510 | Analytical Volumetric Solution Hydrochloric Acid 1.5N, 1.5M | 10L |
| 2.2.1.8 | H20501 | Analytical Volumetric Solution Hydrochloric Acid 0.5N, 0.5M | 1L |

Determination of glutathione in musts and wines by capillary electrophoresis (Resolution OIV-Oeno 345/2009) Method OIV-MA-AS315-19

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.2.1 | PBS7B025 | Phosphate Buffer Saline pH7.00 | 250ml |
| 3.2.3 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |
| 3.2.4 | S25001 | Analytical Volumetric Solution Sodium Hydroxide 5.0N, 5.0M | 1L |

Method for the determination of α -Dicarbonyl compounds of wine by GC after derivatisation by 1,2-Diaminobenzene (OIV-Oeno 386B-2010) Method OIV-MA-AS315-21

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4.6 | SU2200J | Analytical Volumetric Solution Sulphuric Acid 4.0N, 2.0M | 2.5L |

Total Bromide Method OIV-MA-AS321-01

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.3 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |
| 3.4 | CH22001 | Analytical Volumetric Solution Acetic acid 2.0N, 2.0M | 1L |
| 3.4 | S22001 | Analytical Volumetric Solution Sodium Hydroxide 2.0N, 2.0M | 1L |

Chloride Method OIV-MA-AS321-02

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.2 | ET10VV025 | 10% v/v Ethanol/Water - nominal density 0.9865g/ml | 250ml |

Total Phosphorus Method OIV-MA-AS321-04

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 3.2 | H23001 | Analytical Volumetric Solution Hydrochloric Acid 3N, 3M | 1L |

Sulfates Method OIV-MA-AS321-05A

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.1.1 | H22001 | Analytical Volumetric Solution Hydrochloric Acid 2.0N, 2.0M | 1L |

Ammonium Method OIV-MA-AS323-01

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 3.1 | H21001 | Analytical Volumetric Solution Hydrochloric Acid 1.0N, 1.0M | 1L |
| 3.2 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 3.4 | S30WW1 | Sodium Hydroxide 30% w/w (40% w/v) | 1L |
| 3.5 | H20101 | Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M | 1L |
| 3.6 | IPT10W | Indicator Phenolphthalein Alcoholic Solution 1.0% | 2.5L |
| 3.7 | BRCG1501 | Bromocresol Green, 1% Solution | 100ml |

Iron Method OIV-MA-AS322-05B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 2.2.2 | H21001 | Analytical Volumetric Solution Hydrochloric Acid 1.0N, 1.0M | 1L |

Cadmium Method OIV-MA-AS322-10

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 3.3 | ED20021 | Analytical Volumetric Solution EDTA 0.04N, 0.02M | 1L |
| 3.4 | 1090 | pH Buffer Solution pH9.00 \pm 0.01 @20°C | 1L |
| 3.5 | EBTNAACL105 | Eriochrome Black T Indicator, 1% (w/w) in Sodium Chloride | 500ml |

**Determination of lead in wine by atomic absorption spectrometry
Method OIV-MA-AS322-12**

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 4.2 | ET10VV025 | 10% v/v Ethanol/Water - nominal density 0.9865g/ml | 250ml |

Determination of arsenic in wine by atomic absorption spectrometry (Resolution Oeno 14/2002) Method OIV-MA-AS323-01A

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|-------------------------------|-----------|
| 3.4 | KI10WV1 | Potassium Iodide, KI, 10% w/v | 1L |
| 3.6 | H10WV1 | Hydrochloric Acid 10% w/v | 1L |

Arsenic (Resolution Oeno 377/2009) Method OIV-MA-AS323-01B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|-------------------------------|-----------|
| 2.2.4 | KI10WV1 | Potassium Iodide, KI, 10% w/v | 1L |

Total Nitrogen (Resolution Oeno 377/2009) Method OIV-MA-AS323-02B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---|-----------|
| 3.4 | S30WW1 | Sodium Hydroxide 30% w/w (40% w/v) | 1L |
| 3.5 | H20101 | Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M | 1L |

Sulfur dioxide (Resolution Oeno 377/2009) Method OIV-MA-AS323-04A

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 2.2.2.4 | S20011 | Analytical Volumetric Solution Sodium Hydroxide 0.01N, 0.01M | 1L |

Sulfur dioxide (Resolution Oeno 377/2009) Method OIV-MA-AS323-04B

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 2.2.1.2 | S24001 | Analytical Volumetric Solution Sodium Hydroxide 4M, 4N | 1L |
| 2.2.1.5 | I20025F | Analytical Volumetric Solution Iodine 0.05N, 0.025M | 1L |

**Determination of mercury in wine by vapour generation and atomic spectrofluorimeter
(Resolution Oeno 15/2002) Method OIV-MA-AS323-06**

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---------------------------------|-----------|
| 3.8 | PP500F | Potassium Permanganate , 5% w/v | 1L |

**Microbiological Analysis of Wine and Musts Detection, Differentiation and Counting of
Micro-organisms (Resolution OIV-Oeno 206/2010) Method OIV-MA-AS4-01**

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--------------------------|-----------|
| 5.3 | HP301 | Hydrogen Peroxide 3% w/v | 1L |

**Detection of preservatives and fermentation inhibitors Method A 35 modified by
resolution Oeno 6/2006 Method OIV-MA-AS4-02C**

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 1.3 | S20501 | Analytical Volumetric Solution Sodium Hydroxide 0.5N, 0.5M | 1L |

Detection of preservatives and fermentation inhibitors Method A 35 modified by resolution Oeno 6/2006 Method OIV-MA-AS4-02F

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 1.2.3.1 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 1.2.3.2 | SU21001 | Analytical Volumetric Solution Sulphuric Acid 2.0N, 1.0M | 1L |
| 1.2.3.3 | HP301 | Hydrogen Peroxide 3% w/v | 1L |

Determination of the acquired alcoholic strength by volume (ASV) of concentrated musts (CM) and grape sugar (or rectified concentrated musts, RCM) (Oeno 419A-2011) Method OIV-MA-F1-03

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|---------------------------------|-----------|
| 4 | CAOH2M105 | Calcium Hydroxide 2M suspension | 500ml |

Total Acidity (Oeno 419A-2011) Method OIV-MA-F1-05

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.1.1 | 1070 | pHBuffer Solution pH7.00 ± 0.01 @20°C | 1L |
| 3.1.1 | S21001 | Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M | 1L |
| 3.1.2 | 1040 | pHBuffer Solution pH4.00 ± 0.01 @20°C . | 1L |

Sulfur dioxide (Oeno 419B-2011) Method OIV-MA-F1-07

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 2.1.4 | S20011 | Analytical Volumetric Solution Sodium Hydroxide 0.01N, 0.01M | 1L |

Specific methods for the analysis of grape sugar (Resolution Oeno 419B/2012) Method OIV-MA-F1-09

| Chapter | Product No. | Description | Pack Size |
|---------|-------------|--|-----------|
| 3.2 | S20101 | Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M | 1L |

As per Official Methods of Analysis of AOAC International, 19th Edition, 2012 Volume 2. Dr George W. Latimer, Jr.

AOAC Official Method 969.12 Alcohol in Wines

| Chapter | Product No. | Description | Pack Size |
|------------|-------------|--|-----------|
| 28.1.07C.b | 1037702 | European Pharmacopoeia Reagent Ferric ammonium sulphate sol R2 | 1L |

AOAC Official Method 960.20 Carbon Dioxide in Wines

| Chapter | Product No. | Description | Pack Size |
|------------|-------------|--------------------------------------|-----------|
| 28.1.43A.b | HP1005 | Hydrogen Peroxide 10% w/v stabilised | 500ml |

AOAC Official Method 974.08 Sorbic Acid in Wines

| Chapter | Product No. | Description | Pack Size |
|------------|-------------|---|-----------|
| 28.2.02B.a | H20101 | Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M | 1L |

Reagecon's Colour Standards

ASTM Colour Standards

| Product No. | Description | Colour | APHA, ACS and ASTM Methods to include the following | Pack Size |
|-------------|--------------------------------|--------|---|-----------|
| ASTMA101 | ASTM Colour Standard Sample A1 | 1 | D6045,D1500 | 100ml |
| ASTMA105 | ASTM Colour Standard Sample A1 | 1 | D6045,D1500 | 500ml |
| ASTMA301 | ASTM Colour Standard Sample A3 | 3 | D6045,D1500 | 100ml |
| ASTMA305 | ASTM Colour Standard Sample A4 | 3 | D6045,D1500 | 500ml |
| ASTMA501 | ASTM Colour Standard Sample A5 | 5 | D6045,D1500 | 100ml |
| ASTMA505 | ASTM Colour Standard Sample A5 | 5 | D6045,D1500 | 500ml |
| ASTMA701 | ASTM Colour Standard Sample A7 | 7 | D6045,D1500 | 100ml |
| ASTMA705 | ASTM Colour Standard Sample A7 | 7 | D6045,D1500 | 500ml |

Saybolt Colour Standards

| Product No. | Description | Colour | APHA, ACS and ASTM Methods to include the following | Pack Size |
|-------------|--------------------|--------|---|-----------|
| SAYP305 | Saybolt Colour +30 | S+30 | D6045 | 500ml |
| SAYP255 | Saybolt Colour +25 | S+25 | D6045 | 500ml |
| SAYP195 | Saybolt Colour +19 | S+19 | D6045 | 500ml |
| SAYP155 | Saybolt Colour +15 | S+15 | D6045 | 500ml |
| SAYP125 | Saybolt Colour +12 | S+12 | D6045 | 500ml |
| SAYP05 | Saybolt Colour +0 | S0 | D6045 | 500ml |
| SAYN155 | Saybolt Colour -15 | S-15 | D6045 | 500ml |

Platinum-Cobalt Colour Standards* (Hazen)

| Product No. | Description | Colour | APHA, ACS and ASTM Methods to include the following | Pack Size |
|-------------|----------------------------|--------|---|-----------|
| HAZ0 | Platinum-Cobalt Colour 0 | 0 | D1209 | 1000ml |
| HAZ5 | Platinum-Cobalt Colour 5 | 5 | D1209 | 1000ml |
| HAZ10 | Platinum-Cobalt Colour 10 | 10 | D1209 | 1000ml |
| HAZ25 | Platinum-Cobalt Colour 25 | 25 | D1209 | 1000ml |
| HAZ40 | Platinum-Cobalt Colour 40 | 40 | D1209 | 1000ml |
| HAZ50 | Platinum-Cobalt Colour 50 | 50 | D1209 | 1000ml |
| HAZ80 | Platinum-Cobalt Colour 80 | 80 | D1209 | 1000ml |
| HAZ100 | Platinum-Cobalt Colour 100 | 100 | D1209 | 1000ml |
| HAZ250 | Platinum-Cobalt Colour 250 | 250 | D1209 | 1000ml |
| HAZ500 | Platinum-Cobalt Colour 500 | 500 | D1209 | 1000ml |

* Standards with intermediate Platinum-Cobalt values are available on request

Gardner Colour Standards**

| Product No. | Description | Colour | APHA, ACS and ASTM Methods to include the following | Pack Size |
|-------------|-------------------|--------|---|-----------|
| GARD021 | Gardner Colour 2 | 2 | D6166 | 100ml |
| GARD041 | Gardner Colour 4 | 4 | D6166 | 100ml |
| GARD061 | Gardner Colour 6 | 6 | D6166 | 100ml |
| GARD081 | Gardner Colour 8 | 8 | D6166 | 100ml |
| GARD101 | Gardner Colour 10 | 10 | D6166 | 100ml |
| GARD121 | Gardner Colour 12 | 12 | D6166 | 100ml |
| GARD141 | Gardner Colour 14 | 14 | D6166 | 100ml |
| GARD161 | Gardner Colour 16 | 16 | D6166 | 100ml |

** Standards with intermediate Gardner values are available on request

Reagents as Outlined in Chapter 2 of European Pharmacopeia

| Product No. | Description | Pack Size |
|-------------|-----------------------------|-----------|
| EPP0S01 | Primary Opalescent Standard | 100ml |

Colouration - Primary Solutions

| Product No. | Description | Pack Size |
|-------------|--------------------------------------|-----------|
| EPBS01 | EPBS01 Primary Blue Solution 100ml | 100ml |
| EPRS01 | EPRS01 Primary Red Solution 100ml | 100ml |
| EPYS01 | EPYS01 Primary Yellow Solution 100ml | 100ml |

Standard Solutions

| Product No. | Description | Pack Size |
|-------------|-------------------------------------|-----------|
| EP703 | Standard Solution B (Brown) | 100ml |
| EP704 | Standard Solution BY (Brown/Yellow) | 100ml |
| EP705 | Standard Solution GY (Green/Yellow) | 100ml |
| EP706 | Standard Solution Y (Yellow) | 100ml |
| EP707 | Standard Solution R (Red) | 100ml |

USP (631) Colour Standards

| Product No. | Description | Pack Size |
|-------------|-----------------------|-----------|
| USPCS101 | Cupric Sulfate CS | 100ml |
| USPCS102 | Ferric Chloride CS | 100ml |
| USPCS103 | Cobaltous Chloride CS | 100ml |

Reagecon's Flame Photometry Standards

Industrial Standards

| Product No. | Description | Concentration | Pack size |
|-------------|-------------|---------------|-----------|
| FIBA1 | Barium | 1,000ppm | 500ml |
| FIBA3 | Barium | 3,000ppm | 500ml |
| FICA1 | Calcium | 1,000ppm | 500ml |
| FICA2 | Calcium | 2,000ppm | 500ml |
| FICS1 | Cesium | 1,000ppm | 500ml |
| FIL1 | Lithium | 1,000ppm | 500ml |
| FINA1 | Sodium | 1,000ppm | 500ml |
| FIK1 | Potassium | 1,000ppm | 500ml |
| FISR1 | Strontium | 1,000ppm | 500ml |
| FIRB1 | Rubidium | 1,000ppm | 500ml |

Multi-Element Linearity Standards

| Product Number | Description | Concentration | Pack Size |
|----------------|--|---------------|-----------|
| FPLE5 | | Low | 500ml |
| | Barium | 28.8ppm | |
| | Calcium | 18.2ppm | |
| | Lithium | 1.91ppm | |
| | Potassium | 2.09ppm | |
| | Sodium | 2.15ppm | |
| FPME5 | | Medium | 500ml |
| | Barium | 105ppm | |
| | Calcium | 52.4ppm | |
| | Lithium | 5.42ppm | |
| | Potassium | 5.37ppm | |
| | Sodium | 5.67ppm | |
| FPHE5 | | High | 500ml |
| | Barium | 510ppm | |
| | Calcium | 112ppm | |
| | Lithium | 10.0ppm | |
| | Potassium | 11.4ppm | |
| | Sodium | 11.3ppm | |
| FPHK3 | Combination of FPLE5, FPME5 & FPHE5 | As above | 3 x 500ml |

Reagecon's Brix Standards

ISO Guide 34 Sucrose in Water standards- 12 Week Shelf Life

| Product No. | % Sucrose in water (w/w) @ 20°C | Nominal Brix % * | Nominal Refractive Index @ 20°C* | Pack size |
|-------------|---------------------------------|------------------|----------------------------------|-----------|
| BS00 | 0% Sucrose | 0% Brix | 1.332986 | 15ml |
| BS05 | 5% Sucrose | 5% Brix | 1.340264 | 15ml |
| BS07 | 7% Sucrose | 7% Brix | 1.343253 | 15ml |
| BS10 | 10% Sucrose | 10% Brix | 1.347824 | 15ml |
| BS112 | 11.2% Sucrose | 11.2% Brix | 1.349682 | 15ml |
| BS115 | 11.5% Sucrose | 11.5% Brix | 1.350149 | 15ml |
| BS12 | 12% Sucrose | 12% Brix | 1.350930 | 15ml |
| BS125 | 12.5% Sucrose | 12.5% Brix | 1.351714 | 15ml |
| BS15 | 15% Sucrose | 15% Brix | 1.355679 | 15ml |
| BS20 | 20% Sucrose | 20% Brix | 1.363842 | 15ml |
| BS25 | 25% Sucrose | 25% Brix | 1.372328 | 15ml |
| BS30 | 30% Sucrose | 30% Brix | 1.381149 | 15ml |
| BS35 | 35% Sucrose | 35% Brix | 1.390322 | 15ml |
| BS40 | 40% Sucrose | 40% Brix | 1.399860 | 15ml |
| BS45 | 45% Sucrose | 45% Brix | 1.409777 | 15ml |
| BS50 | 50% Sucrose | 50% Brix | 1.420087 | 15ml |
| BS55 | 55% Sucrose | 55% Brix | 1.430800 | 15ml |
| BS60 | 60% Sucrose | 60% Brix | 1.441928 | 15ml |

*The nominal Brix and Refractive Index values are taken from the ICUMSA published tables

Reagecon's Wine Standards

Laboratory Reagents & Analytical Volumetric Solutions for the Wine Industry

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| KNAT08861 | Alkaline Solution (Potassium Sodium Tartrate) 0,886M | 1L |
| CAOH2M105 | Calcium Hydroxide 2M suspension | 500ml |
| CUS11 | Copper Sulfate solution 1% | 1L |
| CUS101 | Copper Sulfate solution 10% | 1L |
| DEXT0055 | Dextrose Solution 0.5% | 500ml |
| NATB46 | di-Sodium tetra-Borate 10-hydrate solution 4,6% | 100ml |
| FS0101 | Fehlings solution A | 1L |
| FS010105 | Fehlings solution A | 500ml |
| FS0102 | Fehlings solution B | 1L |
| FS010205 | Fehlings solution B | 500ml |
| FOCIRE01 | Folin-Ciocalteu's Reagent | 100ml |
| K2SO41 | Gypsumetric Liquor . 1 ml corresponds to 0.01 g of K ₂ SO ₄ | 100ml |
| H20011 | Hydrochloric Acid 0.01M | 1L |
| H20101 | Hydrochloric Acid 0.1N | 1L |
| H210G1 | Hydrochloric Acid 10 g/l | 1L |
| H21001 | Hydrochloric Acid 1M | 1L |
| HCIS115 | Hydrochloric Acid-Water solution 50:50 | 5L |
| HP0905 | Hydrogen Peroxide 0.9% w/v | 500ml |
| HP1005 | Hydrogen Peroxide 10% w/v stabilised | 500ml |
| HP1505 | Hydrogen Peroxide 15% | 500ml |
| HP25VV05 | Phosphoric Acid 25% | 500ml |

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| HP301 | Hydrogen Peroxide 3% w/v | 1L |
| HP305 | Hydrogen Peroxide 3% w/v | 5L |
| I2001F | Iodine 0.01M | 1L |
| I2001H | Iodine 0.01M | 500ml |
| I2005F | Iodine 0.05M | 1L |
| I2005H | Iodine 0.05M | 500ml |
| I20031H | Iodine 0.03125M | 500ml |
| KFECN10WV1 | Potassium Hexacyanoferrate(II) solution 10% w/v | 1L |
| KOH21001 | Potassium Hydroxide 1 mol/l (1N) | 1L |
| KOH20101 | Potassium Hydroxide 0.1M | 1L |
| KI20WV1 | Potassium Iodide 20% Solution | 1L |
| KI30WV1 | Potassium Iodide solution 30% w/v | 1L |
| KT20WV1 | Potassium Thiocyanate solution 20% w/v | 1L |
| KT5WV1 | Potassium Thiocyanate solution 5% w/v | 1L |
| SCS20WV1 | Sodium Carbonate 20% | 1L |
| S20011 | Sodium Hydroxide 0.01M | 1L |
| S20021 | Sodium Hydroxide 0.02M | 1L |
| S20101 | Sodium Hydroxide 0,1 mol/l (0,1N) | 1L |
| S2013321 | Sodium Hydroxide 0,1332 mol/l (0,1332N) | 1L |
| S20401 | Sodium Hydroxide 0,4 mol/l (0,4N) | 1L |
| S216661 | Sodium Hydroxide 1,666 mol/l (1,666N) | 1L |
| S10WV1 | Sodium Hydroxide 10% | 1L |
| S10001 | Sodium Hydroxide 10M | 1L |
| S201005 | Sodium Hydroxide 0.1M | 500ml |
| S20501 | Sodium Hydroxide 0.5M | 1L |
| S20251 | Sodium Hydroxide 0.25M | 1L |
| S2035461 | Sodium Hydroxide 0.35465M | 1L |
| SU33VV1 | Sulphuric Acid 1:3 V/V | 1L |
| SU2501 | Sulphuric Acid 1:4 V/V | 1L |
| SU20VV1 | Sulphuric Acid 1:5V/V | 1L |
| T20021 | Sodium Thiosulfate 0.02M | 1L |
| T20101 | Sodium Thiosulfate 0.1M | 1L |
| T2005511 | Sodium Thiosulphate 0.0551M | 1L |
| T20501 | Sodium Thiosulphate 0,5 N | 1L |
| ST105 | Starch solution 1% | 500ml |
| ST1001 | Starch solution 1% | 1L |
| TISAB-WINE | TISAB for wine analysis (Dir. 2676/90) for the fluoride determination by selective electrodes. pH 5,5±0,1 | 250ml |

Coloured Indicators for the Wine Industry

| Product No. | Description | Pack Size |
|-------------|--|-----------|
| TASHI010 | Indicator Solution for mixed Sulphur | 100ml |
| BRCG1501 | Bromocresol Green, 1% Solution | 100ml |
| BRTH040250 | Bromothymol Blue 0.4% | 250ml |
| BRTH05 | Bromothymol Blue solution 0.4% | 500ml |
| IPT1025 | Phenolphthalein 1% | 250ml |
| MTBLU10250 | Methylene Blue 1% Solution | 250ml |
| BRBP05 | Indicator Solution Bromophenol Blue, 0.04% | 500ml |
| 1063601 | Indicator Solution Phenol Red, 0.02% | 100ml |
| 1055102 | Indicator Solution Methyl Red, 0.02% | 100ml |

Ethanol Density Standards

| Product No. | Description | Pack Size |
|-------------|---|-----------|
| ET08VV025 | 8.5% v/v Ethanol/Water -- nominal density 0.9883g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET10VV025 | 10% v/v Ethanol/Water -- nominal density 0.9865g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET11VV025 | 11% v/v Ethanol/Water -- nominal density 0.9853g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET12VV025 | 12% v/v Ethanol/Water -- nominal density 0.9891g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET13VV025 | 13.5% v/v Ethanol/Water -- nominal density 0.9824g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET14VV025 | 14% v/v Ethanol/Water -- nominal density 0.9868g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET16VV025 | 16% v/v Ethanol/Water -- nominal density 0.9795g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |
| ET20VV025 | 20% v/v Ethanol/Water -- nominal density 0.9753g/ml for calibration of alcoholometers and densimeters in oenology | 250ml |

Reagecon's Conductivity Standards

| Product No. | Description | Pack Size |
|-------------|---------------------|-----------|
| CSKC13 | 1.30µS/cm @ 25°C | 250ml |
| CSKC136 | 1.30µS/cm @ 25°C | 6x250ml |
| CSKC3 | 3µS/cm @ 25°C | 250ml |
| CSKC5 | 5µS/cm @ 25°C | 500ml |
| CSKC10 | 10µS/cm @ 25°C | 500ml |
| CSKC20 | 20µS/cm @ 25°C | 500ml |
| CSKC238 | 23.8µS/cm @ 25°C | 500ml |
| CSKC25 | 25µS/cm @ 25°C | 500ml |
| CSKC50 | 50µS/cm @ 25°C | 500ml |
| CSKC84 | 84µS/cm @ 25°C | 500ml |
| CSKC100 | 100µS/cm @ 25°C | 500ml |
| CSKCS | 147µS/cm @ 25°C | 500ml |
| CSKC150 | 150µS/cm @ 25°C | 500ml |
| CSKC185 | 185µS/cm @ 25°C | 500ml |
| CSKC200 | 200µS/cm @ 25°C | 500ml |
| CSKC250 | 250µS/cm @ 25°C | 500ml |
| CSKC300 | 300µS/cm @ 25°C | 500ml |
| CSKC400 | 400µS/cm @ 25°C | 500ml |
| CSKC500 | 500µS/cm @ 25°C | 500ml |
| CSKC718 | 718µS/cm @ 25°C | 500ml |
| CSKC1000 | 1000µS/cm @ 25°C | 500ml |
| CSKCL | 1413µS/cm @ 25°C | 500ml |
| CSKC2M | 2000µS/cm @ 25°C | 500ml |
| CSKC2500 | 2500µS/cm @ 25°C | 500ml |
| CSKC3M | 3000µS/cm @ 25°C | 500ml |
| CSKC5M | 5,000µS/cm @ 25°C | 500ml |
| CSKC7M | 7,000µS/cm @ 25°C | 500ml |
| CSKC10M | 10,000µS/cm @ 25°C | 500ml |
| CSKC12880 | 12,880µS/cm @ 25°C | 500ml |
| CSKC20M | 20,000µS/cm @ 25°C | 500ml |
| CSKC30M | 30,000µS/cm @ 25°C | 500ml |
| CSKC40M | 40,000µS/cm @ 25°C | 500ml |
| CSKC50M | 50,000µS/cm @ 25°C | 500ml |
| CSKC60M | 60,000µS/cm @ 25°C | 500ml |
| CSKC80M | 80,000µS/cm @ 25°C | 500ml |
| CSKC100M | 100,000µS/cm @ 25°C | 500ml |
| CSKC111800 | 111,800µS/cm @ 25°C | 500ml |
| CSKC150M | 150,000µS/cm @ 25°C | 500ml |
| CSKC200M | 200,000µS/cm @ 25°C | 500ml |
| CSKC300M | 300,000µS/cm @ 25°C | 500ml |
| CSKC350M | 350,000µS/cm @ 25°C | 500ml |
| CSKC400M | 400,000µS/cm @ 25°C | 500ml |
| CSKC450M | 450,000µS/cm @ 25°C | 500ml |
| CSKC500M | 500,000µS/cm @ 25°C | 500ml |