January 2020

Hydranal® Reagents
800-877-3225

ONE COMPONENT VOLUMETRIC REAGENTS

Hydranal® Composites contain all the reactants (iodine, sulphur dioxide and imidazole) dissolved in diethyleneglycolmonomethyl ether (DEGEE). The loss of titre is less than 10% per year. Volumetric reagents have a two-year minimum shelf life for an unopened bottle.

COMPOSITE REAGENTS

HYDRANAL® Composite 1
#34827
One Component reagent
1ml = approx 0.7-1.0 mg H_2O

500 ml	63.69
6x500ml	332.07
1 L	100.38
6x1L	524.67

HYDRANAL® Composite 2
#34806
One Component reagent
1ml = approx. 2 mg H_2O

500 ml	63.69
6x500 ml	332.07
1 L	100.38
6x1L	508.67
2.5 L	217.76
4x2.5L	755.55

#34806-SC
Honeywell's Smart Chemical Hydranal™ bottles are embedded with an RFID chip

1 L	105.25
6x1 L	533.36

HYDRANAL® Composite 5
#34805
General one component reagent
1 ml = approx 5 mg H_2O

500 ml	63.69
6x500 ml	332.07
1 L	100.38
6x1 L	524.67
2.5 L	217.76
4x2.5 L	755.55

#34805-SC
Honeywell's Smart Chemical Hydranal™ bottles are embedded with an RFID chip

1 L	105.25
6x1L	550.14

HYDRANAL ® Solver (Crude Oil)
#34697
Working medium containing xylene and chloroform for water determination of oils

1 L	97.05
6x1 L	505.81
2.5 L	214.33
4x2.5 L	741.84

SPECIALTY REAGENTS FOR ALDEHYDES & KETONES

HYDRANAL® Composite 5K
#34816
Titrant for water determination in ketones and aldehydes
(1ml = approx 5 mg H20)

500 ml	85.64
6x500ml	446.93
1 L	138.32
6x1 L	726.98
2.5L	306.92
4x2.5 L	1064.19

#34816-SC
Honeywell's Smart Chemical Hydranal™ bottles are embedded with an RFID chip

1 L	145.04
6x1 L	762.27

HYDRANAL® Keto Solver
#34738
Solvent component for water determination in aldehydes & ketones. Suppresses side reactions that generate water or consume titrant. Contains no halogenated compounds.

500 ml	67.11
6x500ml	319.49
1 l	98.30
6x1 L	512.09

Working Medium solvents to be used with Hydranal® Composite reagents

HYDRANAL® Liposolver CM
#37855
For water determination in non-polar substances like fats & oils. Contains chloroform and methanol.

1 L	75.69
6x1 L	386.93

HYDRANAL® Liposolver MH
#37856
For water determinations in non-polar substances like fats & oils. Contains methanol and hexane.

1 L	84.84
6x1 L	386.93

HYDRANAL® Methanol Dry
#34741
A custom made solvent for KF titration with a maximum water content of 100 ppm - 0.01%

1 L	35.22
6x1L	165.19
2.5L	65.85
4x2.5L	204.04

HYDRANAL® Methanol Rapid
#37817
Working medium containing accelerators for the determination of H_2O with shorter titration times.

1 L	41.04
6x1L	215.47
2.5 L	90.54
4x2.5L	316.05

HYDRANAL® Working Medium
#34817
Solvent system which contains chloroethanol and chloroform. For the determination of water in aldehydes and ketones.

1 L	105.40
4x1 L	367.50

HYDRANAL® Medium K
#34698
Working Media used for volumetric KF titration in ketones & aldehydes to be used with Hydranal® Composite 5K.

1 L	104.59
6x1 L	518.38

HYDRANAL® Composolver E
#34734
An ethanol-based working medium formulated for use with the standard one-component Hydranal® Composites. It permits a methanol-free analysis using a single component reagent.

1 L	60.36
6x1 L	316.05
2.5 L	124.61
4x2.5 L	434.37

TWO COMPONENT VOLUMETRIC REAGENTS

With two component reagents, the reactants are in separate bottles. The titrant is a solution of iodine and alcohol. The solvent solution contains the sulphur dioxide and imidazole in a specific alcohol. The reagents remain stable and unchanged for a minimum of two years as long as the bottles remain unopened.

TITRANTS

HYDRANAL® Titrant 2
#34811 DEA
One ml is equivalent to 2ml ± 0.01 mg H_2O

500 ml	**44.06**
6x500ml	**230.57**
1 L	**77.46**
4x2.5 L	**403.89**

HYDRANAL® Titrant 5
#34801 DEA
One ml is equivalent to 5.00 ± 0.02 mg H_2O

500 ml	**44.06**
6x500 ml	**230.57**
1 L	**83.31**
6x1 L	**435.93**
2.5 L	**168.21**
4x2.5 L	**584.67**

#34801-SC
Honeywell's Smart Chemical Hydranal™ bottles are embedded with an RFID chip.

1 L	**87.35**
6x1 L	**457.07**

SOLVENTS

HYDRANAL® SOLVENT S
#34800
A methanol based standard solvent for volumetric KF applications

1 L	**76.77**
6x1 L	**399.31**
2.5 L	**159.06**
4x2.5 L	**552.06**

HYDRANAL® Solvent CM
#34812
Solvent component containing methanol and chloroform for the determination of non-polar samples like oils & fats.

1 L	**97.05**
6x1 L	**506.30**
2.5 L	**154.70**
4x2.5 L	**668.20**

HYDRANAL® Solvent Oil
#34749
For water determination in non-polar substances likes fats and oils. Contains methanol and hexane.

1 L	**97.15**
6x1 L	**506.30**

Specialty Reagents for Aldehydes and Ketones

HYDRANAL® Solvent E
#34730
An ethanol based working medium containing imidazole, sulphur dioxide and diethanolamine. Can be used in the analysis of aldehydes and ketones when used with other methanol free reagents.

1 L	**75.98**
6x 1 L	**396.46**
2.5 L	**157.33**
4x2.5 L	**546.34**

HYDRANAL® Titrant 2E
#34723 DEA
A two component reagent based on ethanol. Can be used with any combination of traditional solvents. When used with Hydranal® Solvent E, it provides a methanol-free system for the analysis with a titre of 2.

1 L	**77.46**

HYDRANAL® Titrant 5E
#34732 DEA
A two-component reagent based on ethanol Can be used with any combination of traditional reagents. When used with the Hydranal Solvent E, it provides a methanol. free system for the analysis with a titre of 5.

100 ml	**33.65**
1 L	**78.15**
2.5 L	**169.91**

COULOMETRIC REAGENTS

Coulometry usually requires the use of an anolyte and a catholyte. Hydranal® anolytes contain iodide and a sulphur dioxide/imidazole buffer in a suitable solvent. Coulometric reagents have a shelf life of 5 years, as long as bottle remains unopened.

ANOLYTES

HYDRANAL® Coulomat A
#34807
Anolyte standard two component coulometry. Contains methanol and chloroform as the solvents. Water capacity is > 10 mg/ml.

500 ml	**101.57**
6x500 ml	**415.98**

HYDRANAL® Coulomat AG
#34836
For coulometry in cells with or without a diaphragm. Free of carbon tetrachloride and chloroform.

500 ml	**101.02**
6x500 ml	**526.25**
1 L	**176.71**
6x1 L	**921.95**

HYDRANAL® Coulomat AG-H
#34843
Coulometric analysis for cells with or without a diaphragm. Effective for very polar samples (long-chained hydrocarbons) . Free of carbon tetrachloride and chloroform.

500 ml	**113.74**
6x500 ml	**615.02**

HYDRANAL® Coulomat AD
#34810
For coulometry in cells without a diaphgram. Free of carbon tetrachloride and chloroform.

500 ml	**131.72**
6x500 ml	**686.02**

CATHOLYTES

HYDRANAL® Coulomat CG
#34840
Standard catholyte for coulometric cells with diaphragm. It contains protected ammonium salts as the reactive component and methanol.

50 ml	**81.33**
6x50 ml	**425.47**

HYDRANAL® Coulomat Oil
#34868
Anolyte for determination of oils. Based on methanol, with addition of aromatic and halogenated hydrocarbons to aid solubility.

100 ml	**32.19**
6x100 ml	**168.37**
500 ml	**109.04**
6x500 ml	**570.35**

HYDRANAL® Coulomat AK
#34820
Anolyte for coulometric water determination in samples containing ketones.

500 ml	**235.36**
6x500 ml	**1219.73**

HYDRANAL® Coulomat CG-K
#34821
Catholyte for coulometric water determination in samples of aldehydes & ketones. Packaged as 10x5ml ampoules.

50 ml	**207.87**
6x50 ml	**1079.79**

SPECIALTY REAGENTS

HYDRANAL® Coulomat E
#34726
Replaces much of the methanol with ethanol reducing the toxicity without affecting performance. Can be used in systems with or without a diaphgram.

500 ml	**118.54**
6x500 ml	**617.31**

HYDRANAL® Coulomat AF7
#34829
Anolyte for two-component coulometry, specifically for the AF7 coulometer. It is used with Composite 5 as the catholyte.

1 L	**214.74**
6x1 L	**1122.37**

SPECIALTY REAGENTS

HYDRANAL® STANDARDS

Standards are necessary to standardize and control reagents, to check reliability of the titrator and to test instruments according to the requirements of ISO9000, GMP, GLP and FDA guidelines. (A Manufactuer's Test certificate with exact specifications in included with each standard.)

CERTIFIED STANDARDS

HYDRANAL® Water standard 0.10
#34847
A certified standard containing 0.01 mg of H_2O per g (0.10 mg/g=0.01%).
40 ml is packaged as 10x4 ml ampoules.

40 ml	**98.89**
6x40 ml	**516.32**

HYDRANAL® Water Standard 1.0
#34828
A certified standard containing 1.00 mg of H_2O per g (1 mg/g = 0.1%).
40 ml is packaged as 10x4ml ampoules.

40 ml	**98.89**
6x40 ml	**516.32**

HYDRANAL® Water Standard 10.0
#34849
A certified standard containing 10.0 mg of H_2O per g (10 mg/gm= 1%).
80 ml is packaged as 10 x 8 ml ampoules.

80 ml	**98.89**
6x80 ml	**516.32**

NEW

ISO GUIDE 34 WATER STANDARDS

HYDRANAL® CRM WATER STANDARD 10.0

#34425	Water content 10.0 mg/g=1.0%	80 ml (10x8ml)	**117.06**
#34426	Water content 1.0 mg/g = 0.1%	40 ml (10x4ml)	**117.06**

#34424 Solid CRM Standard, water content Approx. 15.66% — 10 gm — **93.63**

BUFFERS

#34804
For KF titrations of samples containing

500 ml	**55.00**
6x500 ml	**288.63**

HYDRANAL® Molecular Sieve 0.3nm — 250gm — **57.27**
#34241

HYDRANAL® Buffer Base
#37859
For KF titrations of samples containing Salicylic acid,. Buffer capacity 1 mmoles base/ml.

1 L	**94.07**
6x1 L	**490.94**

HYDRANAL® Humidity Absorber
#34788

500 gm	**48.59**
1 kg	**80.59**

HYDRANAL® Formamide Dry
#34724

1 L	**75.10**
6x l L	**322.92**

ADDITIONAL STANDARDS

HYDRANAL® Water Standard KF oven 220-230° C
#34748
Solid standard specially designed to check /control/validate KF ovens @ 229-230 ° C Consists of finely milled potassium citrate-1-hydrate with a theoretical water content of 5.55% by weight.

10 gm	**64.64**
6x10 gm	**343.03**

HYDRANAL® Coulomat AG Oven
#34739
Anolyte for coulometric water determinations using a KF oven. Ensures low error even for long duration determinations. Free of halogenated hydrocarbons.

500 ml	**118.54**
6x500ml	**619.60**

HYDRANAL ® Standard 5.0 Non-Hygroscopic
#34813
A non-hygroscopic butanol/xylene mixture for volumetric standardization. Water content is 5.00 ± 0.02 mg/ml

100 ml	**24.14**
6x100 ml	**125.17**
500 ml	**62.31**
6x500 ml	**286.34**

HYDRANAL® Water in Methanol Standard 5.00
#34802
A standard designed specifically for use in doing back titrations. Water content is 5.00 ± 0.02 mg/ml

1 L	**52.37**
500 ml	**38.31**

HYDRANAL® Standard Sodium Tartrate-2-hydrate
#34803
A primary standard for volumetric titration. Water content = 15.66 +/- 0.05%

100 gm	**52.81**
6x100 gm	**276.63**

HYDRANAL® Water Standard Oil
#34694
A standard specifically designed for water determination in oils by coulometric titration. Water content in low ppm range.

80 ml — **151.96**

HYDRANAL® Water Standard KF Oven 140-160° C
#34693
Solid standard specifically designed to check/control/validate KF ovens @ 140-160 deg. C. Water content approx. 5% (exact value stated on C of A).

10 gm — **70.60**

HYDRANAL® Sodium Tartrate Dihydrate
#34696

25 gm	**30.49**
6x25 gm	**182.90**

HYDRANAL ® Chloroform
#37863

1 L	**59.10**
6x 1 L	**307.49**

HYDRANAL® Xylene
#37866

1 L	**71.91**
6x1 L	**375.49**

HYDRANAL® Salicylic acid
#37865
500 gm — **41.00**

HYDRANAL® Imidazole
#37864
500 gm — **101.40**

HYDRANAL® Benzoic acid
#32035

500 gm	**49.38**
6x500 gm	**246.21**

HYDRANAL® Water Standard 0.1 — 10x4 ml — **98.89**
#34446
(water content 0.1 mg/g = 0.01%)