

# Reagecon

## Pulp & Paper



## Pulp & Paper Standards

# Reagents and Standards for The Pulp and Paper Industry



## T 203 cm-09 © 2009 TAPPI

### Alpha-, beta-, and gamma-cellulose in pulp

Chapter	Product No.	Description	Pack Size
6.3	3001300	European Pharmacopoeia Reagent 0.1M Ferric ammonium sulphate	1L

## T 211 om-12 © 2012 TAPPI

### Ash in wood, pulp, paper and paperboard: combustion at 525°C

Chapter	Product No.	Description	Pack Size
5.1	S20251	Analytical Volumetric Solution Sodium Hydroxide 0.25N, 0.25M	1L
5.2	A110VV1	Acetic Acid 10% v/v	1L

## T 230 om-08 © 2008 TAPPI

### Viscosity of pulp (capillary viscometer method)

Chapter	Product No.	Description	Pack Size
Appendix B.	3008700	European Pharmacopoeia Reagent 1M Cupriethylenediamine Hydroxide Solution	1L
B.3.1.3	KI10WV1	Potassium Iodide, KI, 10% w/v	1L
B.3.1.4	SU2200J	Analytical Volumetric Solution Sulphuric Acid 4.0N, 2.0M	2.5L
B.3.1.5	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
B.3.2.3	SU20501	Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M	1L

## T 235 cm-09 © 2009 TAPPI

### Alkali solubility of pulp at 25°C

Chapter	Product No.	Description	Pack Size
5.5	3001300	European Pharmacopoeia Reagent 0.1M Ferric ammonium sulphate	1L

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### Carboxyl content of pulp

Chapter	Product No.	Description	Pack Size
6.1	H20101	Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M	1L
6.2	H20011	Analytical Volumetric Solution Hydrochloric Acid 0.01N(0.01M)	1L
6.3	S20011	Analytical Volumetric Solution Sodium Hydroxide 0.01N, 0.01M	1L
6.5	MTR06025	Indicator Methyl Red Alcoholic Solution 0.1%	250ml

## T 244 cm-11 © 2011 TAPPI

### Acid-insoluble as in wood, pulp, paper, and paperboard

Chapter	Product No.	Description	Pack Size
4	H26001	Analytical Volumetric Solution Hydrochloric Acid 6.0N, 6.0M	1L

**T 249 cm-09 © 2009 TAPPI****Carbohydrate composition of extractive-free wood and wood pulp by gas-liquid chromatography**

Chapter	Product No.	Description	Pack Size
5.5	BRBP0105	Bromophenol Blue Indicator, 0.1% (w/v) Aqueous Solution	500ml
A.3.1	SU20501	Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M	1L
A.3.2	S21001	Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M	1L
A.3.2	H23001	Analytical Volumetric Solution Hydrochloric Acid 3N, 3M	1L
A.3.6	KI10WV1	Potassium Iodide, KI, 10% w/v	1L

**T 252 om-12 © 2012 TAPPI****pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard**

Chapter	Product No.	Description	Pack Size
4.2.2	1068805	pHBuffer Solution pH6.86±0.01 @25°C	500ml
4.2.4	EP918	European Pharmacopoeia pH Buffer Solution 9.18 ± 0.01 @25°C	500ml
4.3	KCL0101L	Concentrated Volumetric Solution Potassium Chloride 0.1N	Ampoule

**T 254 cm-10 © 2010 TAPPI****Cupriethylenediamine disperse viscosity of pulp (falling ball method)**

Chapter	Product No.	Description	Pack Size
5.4	T20011	Analytical Volumetric Solution Sodium Thiosulphate 0.01N, 0.01M	1L
5.7	H20011	Analytical Volumetric Solution Hydrochloric Acid 0.01N(0.01M)	1L
A.3.1.3	KI10WV1	Potassium Iodide, KI, 10% w/v	1L
A.3.1.4	SU2200J	Analytical Volumetric Solution Sulphuric Acid 4.0N, 2.0M	2.5L
A.3.2.3	SU20501	Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M	1L

**T 255 cm-07 © 2007 TAPPI****Water-soluble sulfates in pulp and paper**

Chapter	Product No.	Description	Pack Size
5.7	H21001	Analytical Volumetric Solution Hydrochloric Acid 1.0N, 1.0M	1L
5.10	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L

**T 256 cm-07 © 2007 TAPPI****Water-soluble chlorides in pulp and paper**

Chapter	Product No.	Description	Pack Size
5.5	NO20101	Analytical Volumetric Solution Nitric Acid 0.1N, 0.1M	1L
5.6	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L

**T 266 om-11 © 2011 TAPPI****Determination of sodium, calcium, copper, iron and manganese in pulp and paper by atomic absorption spectroscopy**

Chapter	Product No.	Description	Pack Size
5.1	H26001	Analytical Volumetric Solution Hydrochloric Acid 6.0N, 6.0M	1L

**T 408 cm-07 © 2007 TAPPI**  
**Rosin in paper and paperboard**

Chapter	Product No.	Description	Pack Size
6.1	HC1001L	Concentrated Volumetric Solution Hydrochloric Acid 1.0N (1.0M)	Ampoule
6.4	1070302	European Pharmacopoeia Reagent Potassium Hydroxide in alcohol (10% v/v) 0.5M	1L
6.6	SU22501	Analytical Volumetric Solution Sulphuric Acid 5.0N, 2.5M	1L

**T 418 cm-07 © 2007 TAPPI**  
**Organic nitrogen in paper and paperboard**

Chapter	Product No.	Description	Pack Size
5.4	SU20051	Analytical Volumetric Solution Sulphuric Acid 0.1N, 0.05M	1L
5.4	H20101	Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M	1L

**T 421 om-12 © 2012 TAPPI**  
**Qualitative (including optical microscopic) analysis of mineral filler and mineral coating of paper**

Chapter	Product No.	Description	Pack Size
5.1	CH21001	Analytical Volumetric Solution Acetic acid 1.0N, 1.0M	1L
5.6	H22001	Analytical Volumetric Solution Hydrochloric Acid 2.0N, 2.0M	1L
8.6.2	S22001	Analytical Volumetric Solution Sodium Hydroxide 2.0N, 2.0M	1L
8.9	S10WV1	Sodium Hydroxide 10%	1L
14.5	HP301	Hydrogen Peroxide 3% w/v	1L

**T 428 om-08 © 2008 TAPPI**  
**Hot water extractable acidity or alkalinity of paper**

Chapter	Product No.	Description	Pack Size
6.1	S20011	Analytical Volumetric Solution Sodium Hydroxide 0.01N, 0.01M	1L
6.2	H20011	Analytical Volumetric Solution Hydrochloric Acid 0.01N(0.01M)	1L

**T 430 cm-09 © 2009 TAPPI**  
**Copper number of pulp, paper, and paperboard**

Chapter	Product No.	Description	Pack Size
4.5	PP2001F	Analytical Volumetric Solution Potassium Permanganate 0.05N, 0.01M	1L

**T 493 cm-10 © 2010 TAPPI**  
**Identification and determination of melamine resin in paper**

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

**T 504 cm-07 © 2007 TAPPI**  
**Glue in paper (qualitative and quantitative determination)**

Chapter	Product No.	Description	Pack Size
2.2.1	S26001	Analytical Volumetric Solution Sodium Hydroxide 6M, 6N	1L

**T 553 om-10 © 2010 TAPPI****Alkalinity of paper as calcium carbonate (alkaline reserve of paper)**

Chapter	Product No.	Description	Pack Size
7.1	H20101	Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M	1L
7.2	H21001	Analytical Volumetric Solution Hydrochloric Acid 1.0N, 1.0M	1L
7.3	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L
7.4	1055102	European Pharmacopoeia Reagent Indicator Solution Methyl Red 0.02%	100ml

**T 600 om-11 © 2011 TAPPI****Analysis of formaldehyde in aqueous solutions and of free formaldehyde in resins**

Chapter	Product No.	Description	Pack Size
5.1	SU20251	Analytical Volumetric Solution Sulphuric Acid 0.5N, 0.25M	1L

**T 602 cm-06 © 2006 TAPPI****Analysis of sulfuric acid**

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

**T 604 cm-09 © 2009 TAPPI****Sulfur dioxide in sulfite cooking liquor**

Chapter	Product No.	Description	Pack Size
5.2	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
9.2.2	SU20501	Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M	1L

**T 610 sp-11 © 2011 TAPPI****Preparation of indicators and standard solutions**

Chapter	Product No.	Description	Pack Size
5.4	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L
5.5	H20101	Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M	1L
6.4	PP2002F	Analytical Volumetric Solution Potassium Permanganate 0.1N, 0.02M	1L
6.5	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
6.6	I2005F	Analytical Volumetric Solution Iodine 0.1N, 0.05M	1L
6.7	KC20016F	Analytical Volumetric Solution Potassium Dichromate 0.1N, 0.0167M	1L
6.8	N20100F	Analytical Volumetric Solution Silver Nitrate 0.1N, 0.1M	1L
6.9	KT201F	Analytical Volumetric Solution Potassium Thiocyanate 0.1N, 0.1M	1L
6.9	AT2010F	Analytical Volumetric Solution Ammonium Thiocyanate 0.1N	1L

**T 613 cm-10 © 2010 TAPPI****Analysis of caustic soda**

Chapter	Product No.	Description	Pack Size
4.2	HC1001L	Concentrated Volumetric Solution Hydrochloric Acid 1.0N (1.0M)	Ampoule
4.5	N20100F	Analytical Volumetric Solution Silver Nitrate 0.1N, 0.1M	1L
4.7	AT2010F	Analytical Volumetric Solution Ammonium Thiocyanate 0.1N	1L

**T 618 cm-10 © 2010 TAPPI**  
**Analysis of limestone**

Chapter	Product No.	Description	Pack Size
3.11	PP2001F	Analytical Volumetric Solution Potassium Permanganate 0.05N, 0.01M	1L
3.15	S10WV1	Sodium Hydroxide 10%	1L

**T 619 cm-10 © 2010 TAPPI**  
**Analysis of salt cake**

Chapter	Product No.	Description	Pack Size
6	N20100F	Analytical Volumetric Solution Silver Nitrate 0.1N, 0.1M	1L
8.2	PP2002F	Analytical Volumetric Solution Potassium Permanganate 0.1N, 0.02M	1L
12	KI10WV1	Potassium Iodide, KI, 10% w/v	1L
12	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
14	WTR045	Kjeldahl Reagent Barium Chloride Solution 10% w/v	5L
17.2	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L

**T 621 cm-10 © 2010 TAPPI**  
**Analysis of rosin**

Chapter	Product No.	Description	Pack Size
3.2	S20501	Analytical Volumetric Solution Sodium Hydroxide 0.5N, 0.5M	1L
3.4	KOH20501	Analytical Volumetric Solution Potassium Hydroxide 0.5N, 0.5M	1L

**T 622 cm-10 © 2010 TAPPI**  
**Analysis of sodium hydrosulfite**

Chapter	Product No.	Description	Pack Size
5.1	CH3C00H201	Acetic Acid, CH <sub>3</sub> COOH, 20% v/v	1L
5.3	I2005F	Analytical Volumetric Solution Iodine 0.1N, 0.05M	1L
5.5	ST105	Starch Solution 1%	500ml

**T 624 cm-11 © 2011 TAPPI**  
**Analysis of soda and sulfate white and green liquors**

Chapter	Product No.	Description	Pack Size
3.1.1	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
3.1.2	I2001F	Analytical Volumetric Solution Iodine 0.01M 0.02N	1L
3.1.3	SU20251	Analytical Volumetric Solution Sulphuric Acid 0.5N, 0.25M	1L
3.1.7	S21001	Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M	1L
3.1.10	NH32601	Analytical Volumetric Solution Ammonium Hydroxide 6N	1L
3.2.1	ST505P	Starch Indicator with 5% Potassium Iodide	500ml
3.3.5	N20100F	Analytical Volumetric Solution Silver Nitrate 0.1N, 0.1M	1L
3.3.7	KT201F	Analytical Volumetric Solution Potassium Thiocyanate 0.1N, 0.1M	1L
3.3.8	CH22001	Analytical Volumetric Solution Acetic acid 2.0N, 2.0M	1L

**T 627 om-09 © 2009 TAPPI**  
**Determination of titanium dioxide**

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

**T 632 cm-11 © 2011 TAPPI**  
**Analysis of sodium silicate**

Chapter	Product No.	Description	Pack Size
3.2	HC0501L	Concentrated Volumetric Solution Hydrochloric Acid 0.5N (0.5M)	Ampoule

**T 699 om-09 © 2009 TAPPI**  
**Analysis of pulping liquors by suppressed ion chromatography**

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

## Reagecon's Pulp and Paper Standards and Reagents

Product No.	Description	Pack Size
CH3C00H201	Acetic Acid, CH <sub>3</sub> COOH, 20% v/v	1L
WTR041	Barium Chloride, BaCl <sub>2</sub> , 10% w/v	1L
WTR061	Barium Chloride, BaCl <sub>2</sub> , 12% w/v	1L
WTR081	Barium Chloride, BaCl <sub>2</sub> , 20% w/v	1L
H2051671	Hydrochloric Acid, HCl, 0.5167M	1L
H207331	Hydrochloric Acid, HCl, 0.773M	1L
H25VVJ	Hydrochloric Acid, HCl, 25% v/v	2.5L
3001500 EP	Hydrochloric Acid, HCl, 6N	1L
KI10WV1	Potassium Iodide, KI, 10% w/v	1L
PP2002F	Potassium Permanganate, KMnO <sub>4</sub> , 0.02M	1L
N201709F	Silver Nitrate 0.1709N 0.1709M	1L
N20250F	Silver Nitrate, AgNO <sub>3</sub> , 0.25M	1L
S20011	Sodium Hydroxide, NaOH, 0.01M	1L
S203131	Sodium Hydroxide, NaOH, 0.313M	1L
T20101	Sodium Thiosulfate, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 0.1M	1L
T20201	Sodium Thiosulfate, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 0.2M	1L
T21001	Sodium Thiosulfate, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 1M	1L
SU2012751	Sulfuric Acid, H <sub>2</sub> SO <sub>4</sub> , 0.1275M	1L
SU222001	Sulfuric Acid, H <sub>2</sub> SO <sub>4</sub> , 4N	1L

# 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