


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 1901 Accredited to ISO/IEC 17025:2017	Chivas Brothers Ltd Issue No: 027 Issue date: 08 February 2024	
	Brands Technical Centre-South Kilmalid Stirling Road Dumbarton Scotland G82 2SS	Contact: Louise Kehoe Tel: +44 (0) 1542 783100 E-Mail: louise.kehoe@pernod-ricard.com
	Testing performed at the above address only	

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ALCOHOLIC BEVERAGES	<u>Chemical Tests</u>	Documented In-House Methods identified by procedure number
Liqueurs, Spirits, Spirit Drinks and intermediate production process samples.	Alcoholic strength (apparent)	BTCP-4003 by densitometry
	Alcoholic strength (actual)	BTCP-4003 by distillation followed by densitometry
	Colour (Tint)	BTCP-4012 by Spectrophotometer absorbance at 525nm
	Determination of Ethyl carbamate: CAS No. 51-79-6	BTCP-4004 by Gas Chromatography-Mass Spectrometry (GC/MS)
	Determination of Higher Alcohols, Esters and Aldehydes:	BTCP-4006 by Gas Chromatography Flame Ionisation Detector (GC-FID)
	Acetaldehyde	CAS No. 75-07-0
	Methanol	67-56-1
	Acetal	105-57-7
	Ethyl acetate	141-78-6
	n-Propanol	71-23-8
	iso-Butanol	78-83-1
	iso- Amyl Acetate	123-92-2
	2-Methyl butanol	1565-80-6
	3-Methyl butanol	123-51-3
	Ethyl Caproate	123-66-0
	Ethyl lactate	687-47-8
	Furfural	98-01-1



Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Chivas Brothers Ltd

Issue No: 027 Issue date: 08 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used																																												
ALCOHOLIC BEVERAGES (cont'd)	<u>Chemical Tests</u> (cont'd)	Documented In-House Methods identified by procedure number																																												
Liqueurs, Spirits, Spirit Drinks and intermediate production process samples (cont'd)	<div>Determination of Esters, Acids and Alcohols:</div> <table><tr><td>Ethyl caprylate</td><td>CAS No. 106-32-1</td></tr><tr><td>Acetic acid</td><td>64-19-7</td></tr><tr><td>Propionic acid</td><td>79-09-4</td></tr><tr><td>Isobutyric acid</td><td>79-31-2</td></tr><tr><td>Ethyl caprate</td><td>110-38-3</td></tr><tr><td>Isovaleric acid</td><td>503-74-2</td></tr><tr><td>Phenyl ethyl acetate</td><td>103-45-7</td></tr><tr><td>Ethyl laurate</td><td>106-33-2</td></tr><tr><td>Caproic acid</td><td>142-62-1</td></tr><tr><td>2-phenyl ethanol</td><td>60-12-8</td></tr><tr><td>Ethyl myristate</td><td>124-06-1</td></tr><tr><td>Caprylic acid</td><td>124-07-2</td></tr><tr><td>Pelargonic acid</td><td>112-05-0</td></tr><tr><td>Ethyl palmitate</td><td>628-97-7</td></tr><tr><td>Capric acid</td><td>334-48-5</td></tr><tr><td>Ethyl palmitoleate</td><td>54546-22-4</td></tr><tr><td>Cetyl Alcohol</td><td>36653-82-4</td></tr><tr><td>Ethyl Stearate</td><td>111-61-5</td></tr><tr><td>Ethyl Oleate</td><td>111-62-6</td></tr><tr><td>Lauric Acid</td><td>143-07-7</td></tr><tr><td>Ethyl linoleate</td><td>544-35-4</td></tr><tr><td>Ethyl linolenate</td><td>1191-41-9</td></tr></table> <div>Determination of N-Nitrosodimethylamine: CAS No.62-75-9</div>	Ethyl caprylate	CAS No. 106-32-1	Acetic acid	64-19-7	Propionic acid	79-09-4	Isobutyric acid	79-31-2	Ethyl caprate	110-38-3	Isovaleric acid	503-74-2	Phenyl ethyl acetate	103-45-7	Ethyl laurate	106-33-2	Caproic acid	142-62-1	2-phenyl ethanol	60-12-8	Ethyl myristate	124-06-1	Caprylic acid	124-07-2	Pelargonic acid	112-05-0	Ethyl palmitate	628-97-7	Capric acid	334-48-5	Ethyl palmitoleate	54546-22-4	Cetyl Alcohol	36653-82-4	Ethyl Stearate	111-61-5	Ethyl Oleate	111-62-6	Lauric Acid	143-07-7	Ethyl linoleate	544-35-4	Ethyl linolenate	1191-41-9	BTCP-4015 by Gas Chromatography Mass Spectrometry (GC-MS)
Ethyl caprylate	CAS No. 106-32-1																																													
Acetic acid	64-19-7																																													
Propionic acid	79-09-4																																													
Isobutyric acid	79-31-2																																													
Ethyl caprate	110-38-3																																													
Isovaleric acid	503-74-2																																													
Phenyl ethyl acetate	103-45-7																																													
Ethyl laurate	106-33-2																																													
Caproic acid	142-62-1																																													
2-phenyl ethanol	60-12-8																																													
Ethyl myristate	124-06-1																																													
Caprylic acid	124-07-2																																													
Pelargonic acid	112-05-0																																													
Ethyl palmitate	628-97-7																																													
Capric acid	334-48-5																																													
Ethyl palmitoleate	54546-22-4																																													
Cetyl Alcohol	36653-82-4																																													
Ethyl Stearate	111-61-5																																													
Ethyl Oleate	111-62-6																																													
Lauric Acid	143-07-7																																													
Ethyl linoleate	544-35-4																																													
Ethyl linolenate	1191-41-9																																													
ALCOHOLIC BEVERAGES and ETHANOLIC SIMULANTS	<u>Chemical Tests</u>	BTCP-4005 by Gas Chromatography Nitrogen Chemiluminescence Detection (GC-NCD)																																												
Liqueurs, Spirits, Spirit Drinks	Analysis and related opinions and interpretations for the purpose of assessment of authenticity and adulteration	Standard operating procedure BTCP-4014 and related industry, Statutory Instruments and EC Regulations, own brand specification and comparison samples.																																												



Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Chivas Brothers Ltd
Issue No: 027 Issue date: 08 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATER: Effluent	<u>Chemical Tests</u> (cont'd) Settled chemical oxygen demand Range 10 – 20,000 mg/l	Documented In-House Methods identified by procedure number STLP008 using Hach Lange kits
END		