

SGS Oil, Gas and Chemicals
Petrotechnical Inspection (M) Sdn Bhd
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23100 Paka, Dungun,
Terengganu,
Malaysia

BP ASIA PACIFIC (MALAYSIA) SDN. BHD
Kompleks Pentadbiran,
Petrokimia Petronas
Kerteh, Terengganu,
24300, Malaysia

CERTIFICATE OF QUALITY

SHIP	: MT CHEMBULK SINGAPORE VOY. 58	CLIENT ID	: NA
DESCRIPTION:	: Acetic Acid In Bulk	SGS ORDER NO	: KT0721B(KT0596/2014)
LOCATION:	: Kertih Terminal Sdn Bhd	SAMPLING BY	: Akmal
SAMPLE SOURCE:	: T 301	SAMPLE BY	: Client
SAMPLE TYPE:	: As submitted	RECEIVED	: 17-Nov-14
SAMPLED:	: 17-Nov-14	COMPLETED	: 17-Nov-14
ANALYSED:	: 17-Nov-14		

This laboratory is accredited under ISO/IEC 17025. The results reported herein have been performed in accordance with the laboratory's term of accreditation except calibrations/tests marked with asterisk (*) in this report which are not within the scope of SAMM accreditation schedule of our laboratory.

PROPERTY	METHOD	MIN	MAX	UNITS	RESULT
Appearance	BP SM111	Clear, Free from matter in suspension		-	Clear, Free from matter in suspension
Color (Pt/ Cobalt)	ASTM D1209		5	Pt-Co	< 5
Acetic Acid Content	BP 70014	99.85	-	% mass	99.85
Crystallization Point	BP 70013	16.35		°C	16.35
Density at 20 ° C	ASTM D4052	1.048	1.051	Kg/l	1.0496
Non Volatile Matter	ASTM D1353	-	0.003	% mass	< 0.003
Chloride (as Cl ⁻)	BP 70020	-	1	ppm	PASS (< 1ppm)
Sulphates (as SO ₄)	BP 70021	-	1	ppm	PASS (< 1ppm)
Iron (as Fe)	ASTM E 394	-	0.5	ppm	< 0.5
Heavy Metal (as Pb)	BP 70022	-	0.5	ppm	< 0.5
Water	ASTM D1364	-	0.15	% wt	0.099
Aldehydes (as Acetaldehyde)	ASTM D2191	-	0.005	% wt	< 0.005
Formic Acid	ASTM D3546	-	0.05	% wt	< 0.05
Permanganate Time	BP 70019	2	-	Hours	> 2
Distillation Range at 1013 mbar, IBP	ASTM D1078	117.5	-	°C	117.5
Distillation Range at 1013 mbar, DP	ASTM D1078	-	119.0	°C	118.0

End of Analytical Results

Remark:

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Users of the data shown on this report should refer to the latest published revisions of ASTM D-3244; IP 367 and ISO 4259 and when utilising the test data to determine conformance with any specification or process requirement. This Test Report is issued under the Company's General Conditions of Service (copy available upon request or on the company website at www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This report shall be reproduced except in full, without the written approval of the laboratory.

Authorised Signatory

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A/2571/5178/2008

November 20, 2014