

## Certificate of Analysis

<b>Product</b>	Methanol	<b>Batch No.</b>	: 18 11 0119
<b>Grade</b>	Extropure	<b>Manufacturing date</b>	: 17/11/2018
<b>Code No.</b>	XP1115	<b>Best before</b>	: 11/2022

Items	Descriptions	Specifications	Test Results
1	Assay (by GC.)	99.9% min.	99.9%
2	Color (APHA)	10 max.	< 10
3	Water (by Coulometry)	0.05% max.	0.022%
4	Acidity ( $\mu$ Eq./g.)	0.3 max.	< 0.3
5	Alkalinity ( $\mu$ Eq./g.)	0.5 max.	< 0.5
6	Solubility in water	Passes test	Passes test
7	Residue on Evaporation	5 ppm max.	< 5 ppm
8	Chloride (Cl)	0.2 ppm max.	< 0.2 ppm
9	Phosphate (PO <sub>4</sub> )	0.1 ppm max.	< 0.1 ppm
10	Heavy metals (as Pb)	100 ppb max.	< 100 ppb
11	Aluminium (Al)	50 ppb max.	< 50 ppb
12	Arsenic and Antimony (as As)	10 ppb max.	< 10 ppb
13	Barium (Ba)	20 ppb max.	< 20 ppb
14	Boron (B)	20 ppb max.	< 20 ppb
15	Cadmium (Cd)	20 ppb max.	< 20 ppb
16	Calcium (Ca)	50 ppb max.	< 50 ppb
17	Chromium (Cr)	20 ppb max.	< 20 ppb
18	Cobalt (Co)	20 ppb max.	< 20 ppb
19	Copper (Cu)	10 ppb max.	< 10 ppb
20	Gallium (Ga)	50 ppb max.	< 50 ppb
21	Germanium (Ge)	50 ppb max.	< 50 ppb
22	Gold (Au)	20 ppb max.	< 20 ppb
23	Iron (Fe)	20 ppb max.	< 20 ppb
24	Lead (Pb)	20 ppb max.	< 20 ppb
25	Lithium (Li)	50 ppb max.	< 50 ppb
26	Magnesium (Mg)	20 ppb max.	< 20 ppb
27	Manganese (Mn)	10 ppb max.	< 10 ppb
28	Nickel (Ni)	10 ppb max.	< 10 ppb
29	Potassium (K)	50 ppb max.	< 50 ppb
30	Silicon (Si)	50 ppb max.	< 50 ppb
31	Silver (Ag)	20 ppb max.	< 20 ppb
32	Sodium (Na)	50 ppb max.	< 50 ppb
33	Strontium (Sr)	20 ppb max.	< 20 ppb
34	Tin (Sn)	50 ppb max.	< 50 ppb
35	Titanium (Ti)	20 ppb max.	< 20 ppb
36	Zinc (Zn)	50 ppb max.	< 50 ppb
37	Silicone oil	Free	Not detectable
38	DOP	Free	Not detectable
39	Amide	Free	Not detectable

This is to certify the above batch has been tested and complies with this specification.

Ladaphan

Chemist

Achun .

Technical Manager