

Constituent	SAE J2719 Limits ($\mu\text{mol/mol}$)	www.SmartChemistry.com Detection Limits ($\mu\text{mol/mol}$)	Method
Water	5	1	ASTM D7649
Total Hydrocarbons (C ₁ Basis)	2		
Methane		0.001	ASTM D5466
Other Hydrocarbons (Smart Chemistry Detection Limit is for individual compound of hydrocarbon)		0.001	ASTM D7892
Oxygen	5	1	ASTM D7649
Helium	300	10	ASTM D1946
Nitrogen, Argon	100		
Nitrogen		2	ASTM D7649
Argon		0.4	ASTM D7649
Carbon Dioxide	2	0.1	ASTM D7649
Carbon Monoxide	0.2	0.001	ASTM D5466
Total Sulfur	0.004		
Hydrogen Sulfide		0.00001	ASTM D7652
Carbonyl Sulfide		0.00001	ASTM D7652
Methyl Mercaptan (MTM)		0.00001	ASTM D7652
Ethyl Mercaptan (ETM)		0.00001	ASTM D7652
Dimethyl Sulfide (DMS)		0.00001	ASTM D7652
Carbon Disulfide		0.00001	ASTM D7652
Isopropyl Mercaptan (IPM)		0.00001	ASTM D7652
Tert-Butyl Mercaptan (TBM)		0.00001	ASTM D7652
n-Propyl Mercaptan		0.00001	ASTM D7652
n-Butyl Mercaptan		0.00001	ASTM D7652
Dimethyl Disulfide		0.00001	ASTM D7652
Tetrahydrothiophene (THT)		0.00001	ASTM D7652
Formaldehyde	0.01	0.001	ASTM D7892
Formic Acid	0.2	0.0005	ASTM D5466
Ammonia	0.1	0.01	ASTM D5466
Total halogenates	0.05		
Chlorine		0.0001	ASTM D5466
Hydrogen Chloride		0.0001	ASTM D5466
Hydrogen Bromide		0.0001	ASTM D5466
Organic Halides (32 compounds Analyzed) (Smart Chemistry Detection Limit is for individual organic halide compound)		0.001	ASTM D7892
Particulate Concentration	1 mg/kg	0.025 mg/kg	ASTM D7651
Particulates Found & Size	< 10 μm		ASTM D7634
Gaseous Sampling at Nozzle			ASTM D7606
Particulate Sampling at Nozzle			ASTM D7650