



**WILLIAMS MIDSTREAM NATURAL GAS LIQUIDS  
SPECIFICATIONS  
ISO-BUTANE**

SPECIFICATION POINT	TEST METHOD (Note 1)	SPECIFICATIONS
Iso-Butane	GPA 2163	Minimum 95.00 L.V.%
Propane & Lighter	GPA 2163	Maximum 3.00 L.V.%
Normal Butane	GPA 2163	Maximum 5.00 L.V.%
Vapor Pressure	ASTM D1267 or D-6897	Minimum 56.00 psig @ 100°F Maximum 60.00 psig @ 100°F
Volatile Residue	ASTM D-1837	Maximum 16°F @ 95% Evaporation
Corrosion	ASTM D-1838	Maximum Number 1 Copper Strip @ 100°F (Note 2)
Volatile Sulfur	ASTM D-2787 or D-5623	Maximum 93 ppm <sub>w</sub>
Hydrogen Sulfide	ASTM D-2420 or D-5623	Maximum 2 ppm <sub>w</sub> (Pass)
Water Content	Visual Inspection	No Free Water
Contaminants	Iso-Butane shall be commercially free from dirt, rust, scale, sand, dust, gums, and gum-forming substances, oil, catalyst poisons, impurities, and other objectionable substances which may be injurious to the system or which may interfere with its transmission through the system. Product will not contain contaminants such as glycol, inhibitors, amine, oxygen, oxygenates, nitrogen, halides, chlorides, arsine/arsenic, mercury, or any compound added to the product to enhance the ability to meet these specifications. Particulate content shall be less than 20 micron in size.	

## Notes:

1. The most current version of the published industry test method will be referenced. Other appropriate industry approved test methods may be substituted if all parties are in agreement.
2. The use of corrosion masking agents is strictly prohibited