

ISOBUTENE

CAS NO.

115-11-7

APPLICATIONS & PROPERTIES

Isobutene is a highly pure, colorless, inflammable gas and a versatile building block in chemical syntheses

PRODUCT SPECIFIC FEATURE

In the production of isobutene special emphasis is placed on the removal of accompanying substances, whereby the high purity can be ensured.

APPLICATION FIELDS

- Elastomers, resins and other plastics
- Fuel & lubricant additives
- Antioxidants
- Vitamins
- Fragrances
- Other fine chemicals

TRANSPORT & LOGISTICS

The delivery takes place in tank containers, tank cars, rail tank cars, barges and seagoing vessels.

SPECIFICATION

Property	Value	Unit	Method
Isobutene	min. 99,9	% (m/m)	DIN EN 51 405
1-Butene	max. 500	mg/kg	DIN EN 51 405
2-Butene	max. 500	mg/kg	DIN EN 51 405
N-Butane/Iso-butane	max. 1000	mg/kg	DIN EN 51 405
Ethene/Propene	max. 100	mg/kg	DIN EN 51 405
Alcohols ¹⁾	max. 30	mg/kg	DIN EN 51 405
Carbonyls ²⁾	max. 30	mg/kg	ASTM E 411
Water	max. 50	mg/kg	DIN EN ISO 12937
Sulphur	max. 1	mg/kg	DIN EN 24 260
Isoprene	max. 20	mg/kg	DIN EN 51 405
Dimethylether	max. 1	mg/kg	DIN EN 51 405
Butadiene	max. 75	mg/kg	DIN EN 51 405
Tert.-Butylalcohol	max. 5	mg/kg	DIN EN 51 405
Methy-tert.-butylether	max. 5	mg/kg	DIN EN 51 405

¹⁾ calc. as tert.-Butanol ²⁾ calc. as Acetone

PHYSICAL PROPERTIES (LITERATURE DATA)

Property	Value (approx.)	Unit
Molecular mass 87 {C ₄ H ₈ }	56.11	g/mol
Density (to air)	1.93	-
Boiling point at 1013 mbar	-6.9	°C
Sodification point	-140.3	°C
Critical temperature	144.7	°C
Critical pressure	40	bar
Heat of vaporization at b.p.	394	kJ/kg

DENSITY (LIQUEFIED GAS)

°C	-10	0	10	20	30	40	50
g/cm ³	0.628	0.617	0.606	0.594	0.580	0.569	0.555

VAPOUR PRESSURE P_{abc}

°C	-10	0	10	20	30	40	50
bar	0.90	1.32	1.87	2.56	3.50	4.64	6.06

HEAT OF VAPORIZATION

°C	-10	0	10	20	30	40	50
kJ/kg	397	288	379	370	360	349	337

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