

Description

HBr, anhydrous liquid, is a gas at atmospheric pressure.

Chemical formula: HBr
Molecular weight: 80.92

Applications

Organic synthesis
Electronic application

Specifications

Assay, calculated, wt % ≥ 99.80
HCl, mg/kg ≤ 2000

Physical Properties

Appearance gas at atmospheric pressure
Density, 0 °C, g/cm³ (lbs/gal) 1.85 (15.4)
Boiling point, 760 mm Hg, °C (°F) -67 (-88)
Melting point, °C (°F) -87 (-124)

T, °C	Vapor Pressure, bar	Liquid Density, g/cc
-40	3.40	2.06
-30	4.96	2.01
-20	7.01	1.95
-10	9.64	1.90
0	12.9	1.85
10	17.0	1.79
20	21.9	1.73
30	27.7	1.66
40	34.4	1.59
50	42.2	1.52
60	51.1	1.43
70	61.1	1.34
80	72.0	1.21

Vapor Pressure in bar, t in Kelvin:

$$P(t) := e^{11.637 - \frac{2221}{t} - 0.146 \cdot \ln(t) - 1.701 \cdot 10^{-6} \cdot t^2}$$

Ref: Stull, D.R., *Vapor Pressure of Pure Substances Organic Compounds*, **Ind. Eng. Chem.**, 1947, 39, 517-540 (Refit and extrapolated to critical point by Albemarle Corporation)

Liquid Density g/cc, t in Kelvin:

$$\rho(t) := \frac{0.2325}{0.2764 \left[1 + \left(1 - \frac{t}{T_c} \right)^{0.3533} \right]}$$

Where: T_c = 363.2K

Ref: Experimental data from Albemarle Corporation extrapolated by Albemarle Corporation to normal boiling point and critical point

Shipping Information

Container Information

1-MT multi-unit tank car
DOT classification: 110A 800W

Shipping Classification

Proper shipping name: Hydrogen bromide, anhydrous
Hazard classification: 2.3 (toxic gas)
ID number: UN1048
Placard (U.S.): poison gas (primary) corrosive (subsidiary)
Placard (International): toxic gas (primary), corrosive (subsidiary)
Label (U.S.): poison gas and corrosive
Label (International): toxic gas
Mark: inhalation hazard and Hydrogen bromide, anhydrous

Safety and Handling Information

For specific safety, handling and toxicity information, please refer to the current Material Safety Data Sheet.

Chemical Registration Numbers

CAS: 10035-10-6
EINECS: 233-113-0

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