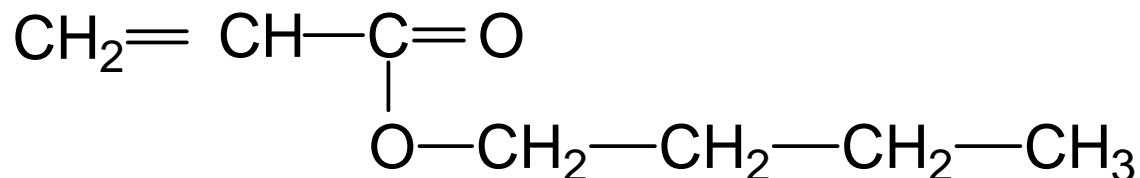


BA**BUTYL ACRYLATE**

Gas number : 141-32-2

EINECS number : 205-480-7

CHEMICAL FORMULA

Molecular weight : 128

OTHER NAMES

Acrylic acid, n-butyl ester
2-Propenoic acid, n-butyl ester

SPECIFICATIONS (Ref. A004FS001)

	SPECIFICATION	METHOD
Appearance	Clear liquid	GB/T17529.4-1998
Colour (APHA)	10 maximum	GB/T17529.4-1998
Purity by gas-phase chromatography	99.5 % minimum	GB/T17529.4-1998
Water content	500 ppm maximum	GB/T17529.4-1998
Acidity (expressed as acrylic acid)	100 ppm maximum	GB/T17529.4-1998
Inhibitor content (MEHQ)*	10 to 20 ppm	GB/T17529.4-1998

* For some destinations, inhibitor standard is increased :
Specifications, ref. A004FS009 (Drums), inhibitor (MEHQ) 50 ± 10 ppm
All other properties and specifications remain the same

HANDLING AND SAFETY ADVISES :

We advise you to read carefully the safety data sheet.

ARKEMA
INNOVATIVE CHEMISTRY

Butyl Acrylate

MAIN PHYSICAL CHARACTERISTICS

Molecular weight	.....	128
Boiling point, at 1013 mbar	.....	147°C
Freezing point	.....	- 64°C
Specific gravity	at 20°C	0.898
	at 25°C	0.894
Refractive index, n_D	at 20°C	1.419
	at 25°C	1.416
Viscosity	at 20°C	0.900 mPa.s
	at 25°C	0.808 mPa.s
Solubility	water in BA at 20°C	0.7 g/100 g
	BA in water at 20°C	0.2 g/100 g
Specific heat in liquid state	.....	1.96 kJ/kg°C
Latent heat of vaporisation	.....	297 kJ/kg
Heat of polymerisation	.....	604 KJ/kg
Homopolymer glass transition temperature	.....	- 54°C
Flash point	in open cup	48°C
	in closed cup	39°C
Lower explosion limit in volume	.....	1.5 %
Vapour pressure	at 20°C	5.3 mbar
	at 30°C	10 mbar
	at 50°C	29 mbar
Auto-ignition temperature	.....	297°C

CHEMICAL PROPERTIES

- Addition reactions to the double bond
- Ability to polymerise and copolymerise
- Values for the copolymerisation reactivity ratios r_1 , r_2 of butyl acrylate (M_1) with various monomers (M_2) have been calculated using the Alfred & Price formula

Styrene..... $r_1 = 0.07r_2 = 0.45$

Methyl methacrylate..... $r_1 = 0.34r_2 = 1.92$

Vinyl acetate..... $r_1 = 4.95r_2 = 0.04$

PACKAGING AND STORAGE

Butyl acrylate is delivered :

- in 24 and 53 tons protected ordinary steel rail tankcars
- in 25000 to 32000 litres stainless steel road tankcars
- in ~200 litres ordinary plastic drums, loaded at 180 Kg.

The standard inhibition is 15 ppm Monomethyl Ether of HydroQuinone (MEHQ).

With this inhibitor, the product should be stored indoors at a temperature of no more than 25°C and away from light. It must also be stored under air atmosphere, as the presence of oxygen is essential to activate the stabiliser.

Under these conditions, the product is commercially guaranteed for six months after delivery.

Butyl acrylate is a flammable product, and the usual precautions must be taken in handling it.

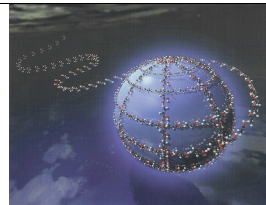
USES

Butyl acrylate is used in the composition of copolymers, with various industrial applications, such as :

- resins and dispersions for paints, varnishes and inks, glues and adhesives
- aqueous dispersions for non-woven fabrics, textiles paper and leather
- cleaning and waxing products
- plastics and synthetic resins
- synthetic rubbers and lattices
- organic synthesis.

ACRYLICS BU/013570/V3/11.10

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