



Technical Data Sheet

Valeric Acid

Synonyms

Pentanoic acid; propylacetic acid; butanecarboxylic acid

Sustainability Attribute:

Chemical Formula

$\text{CH}_3(\text{CH}_2)_3\text{COOH}$



Description

Valeric acid is a colorless liquid with an unpleasant odor.

Applications

- Chemical intermediate
- Intermediate in perfumery
- Synthetic lubricants
- Agricultural chemical intermediate, pharmaceutical intermediate

Typical Physical Properties

Property	Unit	Value
Molecular weight	g/mol	102.13
Boiling point @ 760 mmHg, 1.01 ar	°C (°F)	184 (363)
Flash point (Setaflash Closed Cup)	°C (°F)	84 (183)
Freezing point	°C (°F)	-35 (-31)
Vapor pressure @ 25°C — extrapolated	mmHg kPa	0.1 0.1
Specific gravity (20/20°C)		0.939
Liquid density @ 20°C	g/cm ³	0.939
Vapor density (air = 1)		3.5
Viscosity (@ 25°C)	cP or mPa*s	2.4
Surface tension (@ 25°C)	dynes/cm or mN/m	26.1
Specific heat (@ 25°C)	J/g/°C	No test data available
Heat of vaporization at normal boiling point	J/g	No test data available
Net heat of combustion — predicted @ 25°C	kJ/g	No test data available
Autoignition temperature	°C (°F)	410 (770)
Evaporation rate (n-butyl acetate = 1.0)		0.02

Typical Physical Properties:

This data provided for those properties are typical values, and should not be construed as sales specifications.

Typical Physical Properties (Cont.)

Property	Unit	Value
Solubility, g/L or % @ 20°C		
Solvent in water	g/L	37.5
Water in solvent		
Hansen solubility parameters (J/cm ³) ^{1/2}		
_Total		
_Non-polar		
_Polar		
_Hydrogen bonding		
Partition coefficient, n-octanol/water (log Pow)		1.8
Flammable limits	vol.% in air	
Lower		2.7
Upper		7.6

Classification/ Registry Numbers/Country Inventory¹.

CAS#	109-52-4
AICS (Australia)	109-52-4
DSL (Canada)	109-52-4
IECSC (China)	109-52-4
ECI (Korea)	109-52-4/KE-35263
EINECS (EU)	203-677-2
MITI (Japan)	109-52-4
ENCS/ISHL (Japan)	2-608
NZIoC (New Zealand)	109-52-4
PICCS (Philippines)	109-52-4
TSCA (U.S.)	109-52-4

¹NOTE: Classifications apply only to this Oxygenated Solvents product. It is the responsibility of the formulator to ensure that the final finished product complies with the regulations of a given country prior to its sale or distribution in that country.

How Supplied

REGION	PACKAGING	TRANSPORT MODE
Europe/Africa	Bulk/Drum	Tank Truck
Latin America	Drum	Not Applicable
North America	Bulk/Drum	Tank Truck/Tank Car
Pacific	Drum	Not Applicable

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