Technical Data Sheet :3D-basics

Version/Printdate: 24.10.2023

ISOPROPANOL

Identifiers

Product name Isopropanol 99,9%

Chemical name of the substance: 2-Propanol CAS: 67-63-0 EC-No.: 200-661-7

REACH Registration Number: 01-2119457558-25-0001

01-2119457558-25-0002

Chemical Sum Formula C_3H_8O

CH3CH(OH)CH3 Chemical Formula

Typical Physical Properties

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

Property	Method	Value	Unit
Purity, min.	GC	99,5	%m/m
Water	ASTM D1364	0,03	%m/m
Acidity (as Acetic Acid)	ASTM D1613	0,001	%m/m
Density at 20°C	ASTM D4052	0,795	kg/l
Specific Gravity at 20°C/20°C	ASTM D4052	0,786	-
Specific Gravity at 25°C/25°C	ASTM D4052	0,783	-
Coefficient of Cubic Expansion at 20°C	Calculated	11	10 ⁻⁴ /°C
Refractive Index at 20°C	ASTM D1218	1,377	-
Color	ASTM D1209	<5	Pt-Co
Boiling Point	-	82	°C
Relative Evaporation Rate (nBuAc=1) Relative	ASTM D3539	1,5	-
Relative Evaporation Rate (Ether=1)	DIN 53170	11	-
Antoine Constant A #	-	6,86618	kPa. °C
Antoine Constant B #	-	1360,13	kPa. °C
Antoine Constant C #		197,592	kPa. °C
Temperature Limits for Antoine Equation #		-10 to +90	°C -
Vapor Pressure at 20°C	Calculated	4,1	kPa
Vapor Pressure at 50°C	Calculated	24	kPa
Saturated Vapor Concentration at 20°C	Calculated	102	g/m3
Volatile Organic Compound (VOC)	EU / EPA	785	g/l
Flash Point (Abel)	IP 170	12	°C
Auto Ignition Temperature	ASTM E659	425	°C
Lower Explosion Limit	-	2,0	%v/v -
Upper Explosion Limit	-	12	%v/v -
Electrical Conductivity at 20°C	ASTM D4308	6*10 ⁶	pS/m
Dielectric Constant at 20°C	-	18,6	-

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Property	Method	Value	Unit
Freezing Point	-	-88	°C
Surface Tension at 20°C	-	23	mN/m
Viscosity at 20°C	-	2,4	mPa.s
Hildebrand Solubility Parameter	-	11,5	(cal/cm3)1/2
Hydrogen Bonding Index	-	-16,7	-
Fractional Polarity	-	0,178	-
Heat of Vaporization at Tboil	-	664	kJ/kg
Heat of Combustion (Net) at 25°C	-	31000	kJ/kg
Specific Heat at 20°C	-	2,56	kJ/kg/°C
Thermal Conductivity at 20°C	-	0,14	W/m/°C
Miscibility at 20°C: Solvent in water	-	complete	%m/m
Miscibility at 20°C: Water in solvent	-	complete	%m/m
Azeotrope with Water: Boiling Point	-	80,3	°C
Azeotrope with Water: Solvent Content	-	87,4	%m/m
Molecular Weight	-	60	g/mol

Hazard Information

For detailed Hazard Information please refer to the Safety Data Sheet on 3d-basics.com/downloads

Storage Handling

Provided proper storage and handling precautions are taken we would expect ISOPROPANOL to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet on 3d-basics.com/downloads.

Disclaimer

All other information supplied, including that herein, is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine a product's suitability for a particular purpose. We make no warranty, express or implied, including regarding any information supplied or the data upon which it is based or the results to be obtained from the use of such products or information, or concerning product, whether of satisfactory quality, merchantability, fitness for any particular purpose or otherwise, or with respect to intellectual property infringement as a result of use of information or products, and none shall be implied.