CHEMICAL INTERMEDIATES

Phenol – High Purity Grade

Description

High-purity phenol from AdvanSix is used for a variety of applications requiring exceptional quality and consistency. Common uses range from herbicides, pharmaceuticals, dyes and polycarbonates to automotive parts, optical media, glazing, can coatings, adhesives, electronic insulators, and in phenolic resins.

Physical and Chemical Properties

Typical Properties	Specifications
CAS Number	108-95-2
Chemical Formula	C_6H_5OH
Other/Generic Names	Carbolic acid, monohydroxybenzene, hydroxybenzene, benzenol, phenylic acid, phenyl hydroxide, benzophenol, phenyl hydrate, phenylic alcohol, monophenol, phenic acid, oxybenzene
Appearance	Colorless to light pink solid, or white molten liquid
Physical State	Liquid or Solid
Molecular Weight	94.11
Odor	Characteristically sweet
Specific Gravity of Solid @ 25ºC (77ºF)	1.132
Specific Gravity of Liquid @ 41ºC (105.8ºF)	1.058
Specific Gravity of Liquid @ 50ºC (122ºF)	1.049
Specific Gravity of Liquid @ 60ºC (140ºF)	1.041
Vapor Density (Air = 1.0)	3.24
Viscosity of Liquid @ 45ºC (113ºF)	3.8 cSt
Viscosity of Liquid @ 60ºC (140ºF)	2.52 cSt
Viscosity of Liquid @ 80ºC (176ºF)	1.597 cSt
Threshold Limit Value (8 hours)	5 ppm (19 mg/m^3)
Threshold (odor)	0.3 ppm
Weight per gallon @ 50ºC (122ºF)	8.75 lb
Water Solubility (miscibility), Weight % (Wt. %)	9.5 @ 25°C (77°F)
Flammable Limits	Lower limit approx. 1.5 %
Flash Point, Closed Cup	79ºC (174.2ºF)
Flash Point, Open Cup	85ºC (185ºF)
Autoignition Temperature	715ºC (1319ºF)

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The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

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Phenol – High Purity Grade

Physical and Chemical Properties *(Continued)*

Typical Properties	Specifications
Boiling Point (760 mmHg)	181.8ºC (359.2ºF)
Freezing Point	40.9ºC (105.6ºF)
Hygroscopic	Yes
Light Sensitive	Yes
Reactivity	Stable
Storage	Shipped in water solutions to eliminate molten storage

Product Specifications

Property	Specifications	Test Method
Appearance (Molten State)	Clear water white liquid	Visual
Appearance (Solid State)	White crystalline mass	Visual
Color, APHA, (Molten)	20 Max.	D-1686-96 (2003)el
Purity, Wt. %	99.6 Min.	D-6142
Water, Wt. %	0.03 Max. (at loading) 0.1 Max. (at receipt)	D-1631-99
Solidification Point, ºC	40.6 Min.	D-1493-97

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Contact AdvanSix
To learn more about phenol, visit
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