

Hexamethylene tetramine

PRODUCT INFORMATION

Hexamine, HMT, Methenamine

Appearance: White crystals or powder
Molecular formula: $C_6H_{12}N_4$
CAS-No.: 100-97-0
EC-No.: 202-905-8
REACH-No.: 01-2119474895-20-0000

Commercial form:

	Assay	Ash	Grain size
crystalline:	>99 %	0.05 %	50 % > 200 μ m
coarse crystalline:	>99 %	0.05 %	70 % > 250 μ m
crystalline free-flowing:	>97 %	0.5 - 1.5 %	50 % > 200 μ m
ground free-flowing:	>97 %	0.5 - 1.5 %	< 10 % > 63 μ m
Hexa K:	>96 %	2.0 - 3.0 %	< 1.0 % > 63 μ m
Methenadur[®]:	>96 %	2.0 - 3.0 %	< 1.0 % > 63 μ m
Methenalink[®]:	>96 %	2.0 - 3.0 %	< 1.5 % > 63 μ m
	paraffin oil	1.5 - 2.5 %	
Methenamine p.a. (E.P.):	>99 %		50 % > 200 μ m
Hexamine solution 32 %:	31.5 - 32.5 %		
Hexamine solution 40 %:	39.0 - 41.0 %		
colorless to slightly yellowish aqueous solution			

Chemical and physical properties:

- Molecular weight: 140.19 g / mol
- Melting point: sublimates at >280 °C
- Density (20 °C): 1.33 g / cm³
- pH value (10 % solution): 7.5 - 9.0
- Solubility in water:
 - at 20 °C = 89.5 g / 100 g
 - at 40 °C = 87.4 g / 100 g
 - at 60 °C = 84.4 g / 100 g
- Ignition temperature: > 390 °C
- Bulk density:
 - crystalline grades 700 - 800 kg / m³
 - micronized grades 300 - 400 kg / m³

Packaging:

- Paper bags, 3ply, one layer PE-coated
- Big Bags, 500 -1000 kg
- Hexamine solution: Tank truck, 23 mt

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- Storage:** Although Hexamethylene tetramine is moisture-sensitive, it is not hygroscopic. It should be stored in the driest possible atmosphere at relative humidity below 60 %. Especially bags which have been opened should be sealed air-tight and stored without pressure. Pallets should not be double-stacked.
- Characteristics:** HMT shows weak basic action (pH of a 10 % solution: 7-9). Hexamine crystals can agglomerate even with extremely low moisture content: The finer these crystals are, the stronger is this tendency. The agglomeration is favoured by pressure and heat as well as by high relative atmospheric humidity.
- All free-flowing grades, Hexa K, Methenadur and Methenalink contain silica as an anti-caking-agent
- Handling:** Dusty hexamethylenetetramine, when mixed with air, tends to generate dust explosions. Take measures against electrostatically charging and make sure that the dust is completely removed by an exhaust system.
- Application:**
- Resins: Curing of Phenol-, Melamine-, and Urea-Formaldehyde-Resins.
 - Fertilizer: Anti-caking-agent for urea fertilizer
 - Rubber: Vulcanization accelerator and adhesion promotor (Hexa K, Methenalink)
 - Pharma: Disinfectant (Urotropin)
 - Metal: Corrosion inhibitor
- Production of smokeless fuel tablets
Production of explosives
- Transport:**
- UN-No.: 1328
 - Class: 4.1
 - PG: III
 - Hazard label: 4.1
- More details can be seen from our actual MSDS.

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