

Zn(BDC) **Zinc** Metal Organic Framework



MOF



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Zinc

Metal Organic Framework

Metal-organic frameworks (MOFs) as hybrid porous polymeric structures have attracted worldwide attention due to their unprecedented opportunities in vast range of applications in diverse fields including chemistry, biological, and medicinal science as gas storage/separation, sensing, and drug delivery systems. Because of their high degree of chemical and structural tunability at a molecular level, Zinc MOFs have attracted significant attention as versatile materials for a plethora of applications such as gas storage/separation, sensors, catalysis and energy storage devices.

Quick Facts

Stock No.	:	NS6130-12-000891
CAS	:	59061-53-9
Purity	:	99 %
APS	:	30-40µm
Molecular Formula	:	C ₈ H ₁₀ O ₄ Zn
Molecular Weight	:	227.585 g/mol
Form	:	Powder



Properties

- Large Surface Area
- High degree of crystallinity
- Low density
- Uniform channels
- Porosity
- High thermal stability
- Chemical tailor ability

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Applications

01 Food

- Quality control (e.g. moisture control)
- Food storage (e.g. suppression of ripening agents)
- Shelf life management (e.g. triggered release of ripening agents)
- Delivery of agrochemicals (e.g. triggered release of fertilizers etc.)

02 Gas storage

- Compressed gas storage (e.g. natural gas, hydrogen, etc.)
- Toxic and reactive gas systems (e.g. via sub-atmospheric storage systems)
- Carbon capture and sequestration (CCS)

03 Conductivity

- Electronics
- Batteries (e.g. electrodes, electrolytes, etc.)
- Optoelectronic devices (e.g. solar cells)
- Additives

04 Catalysis

- Catalytic support and immobilization
- Encapsulation of catalytic active species
- Unprecedented selectivity and activity

05 Sensoring and detection

- Gas/vapor and small molecule detection
- Luminescence (e.g. scintillation)
- Medical diagnostics
- Explosive detection

06 Gas Treatment

- Separation (e.g. hydrocarbons, CO₂, O₂, H₂, NH₃, H₂S, toxics, etc.)
- Purification
- Impurity and odor removal
- Filtering (e.g. molecular sieves)

07 Textile upgrading

- Additives
- Personal protection
- Chemical, biological, radiological and nuclear (CBRN) defense

08 Gas and liquid adsorption

- Drug Delivery (e.g. slow release of target molecules)
- Water harvesting
- Removal of toxic and hazardous substances (e.g. chemical warfare agents)
- Heat transformation (e.g. adsorption heat pumps)
- Respiratory systems (e.g. gas masks)
- Water treatment (e.g. heavy metal removal)



ISO 9001:2015
CERTIFIED COMPANY

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