

# ZIF-8




**2-Methylimidazole**  
Zinc Salt



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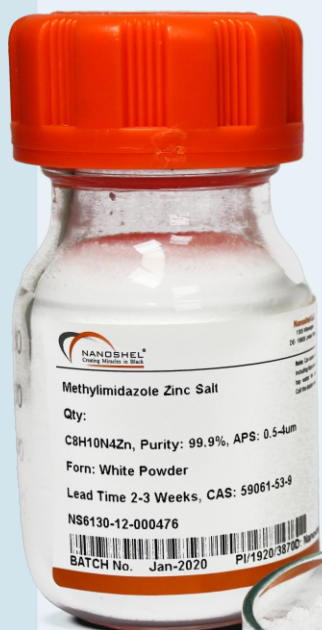
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## 2-Methylimidazole Zinc Salt

ZIFs possess the unique properties of high crystallinity, large surface area, exceptional chemical and functional tunability. As a result, ZIFs have gained considerable attention for their potential application in gas storage, CO<sub>2</sub> capture, separation, sensing, catalysis, drug delivery, and water treatment. Zeolitic imidazolate framework-8 (ZIF-8), with sodalite (SOD) topology constructed from Zn and Hmim, is one of the most investigated ZIF materials.

### Quick Facts

Synonyms	:	ZIF-8
Stock No.	:	NS6130-12-000476
CAS	:	59061-53-9
Purity	:	99 %
APS	:	0.5-4 µm
Molecular Formula	:	C <sub>8</sub> H <sub>10</sub> N <sub>4</sub> Zn
Molecular Weight	:	229.6 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 Sensing and detection

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

## 06 Gas Treatment

- Separation (e.g. hydrocarbons, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, NH<sub>3</sub>, H<sub>2</sub>S, 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)



20ZICE4589C



19ZAZGO1274G



20ZICE4588M

ISO 9001:2015  
CERTIFIED COMPANY

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