SAFETY DATA SHEET

# CPT Method ZIF-8

*ACS Material CPT Method Zeolitic Imidazolate Framework-8 (ZIF-8) · Version 1.3 / EN · Revision Date: 10/27/2026*

CONTENTS

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Revision Date **10/27/2026**

SECTION 1

## Identification of the Product and of the Company

**1.1 Product identifiers**

**Product Name :** ACS Material CPT Method Zeolitic Imidazolate Framework-8 (ZIF-8)

**Brand :** ACS Material LLC

**CAS-No. :** 59061-53-9

**Product Number :** MMZ8B001 (1 g); MMZ8B005 (5 g)

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses :** Laboratory chemicals, Manufacturing of substances

**Restrictions on use :** No data available

**1.3 Details of the supplier of the safety data sheet**

**Company :** ACS MATERIAL LLC

959 E Walnut Street, Suite 100, Pasadena, CA 91106, USA

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**Fax :** +1 (781)-518-0284

**1.4 Emergency telephone number**

**Emergency Phone # :** +1 (866)-227-0656

SECTION 2

## Hazards Identification

**2.1 Classification of the substance or mixture**

**GHS Classification**

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Category 1B), H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

**Pictogram**



**Signal word :** Danger

**Hazard statement(s)**

| | |
|---|---|
| **H302** | Harmful if swallowed. |
| **H314** | Causes severe skin burns and eye damage. |

**Precautionary statement(s)**

| | |
|---|---|
| **P260** | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. |
| **P280** | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| **P301 + P312 + P330** | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. |
| **P303 + P361 + P353** | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. |
| **P304 + P340 + P310** | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. |
| **P305 + P351 + P338** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**

No data available

SECTION 3

## Composition / Information on Ingredients

**3.1 Substances**

**Substance name :** ACS Material CPT Method Zeolitic Imidazolate Framework-8 (ZIF-8)

**Synonyms :** 2-Methylimidazole zinc salt; ZIF-8; metal–organic framework (MOF), zeolitic imidazolate framework (ZIF)

**Formula :** C8H10N4Zn

**Molecular weight :** 227.58 g/mol

**CAS number :** 59061-53-9

**Chemical characterization :** Metal–organic framework (zinc 2-methylimidazolate); not an aluminosilicate zeolite.

**Concentration :** ≤100%

Information on impurities and stabilizing additives (constituents) that contribute to hazard classification: No data available.

SECTION 4

## First Aid Measures

**4.1 Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

SECTION 5

## Firefighting Measures

**5.1 Extinguishing media**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media**

No data available

**5.2 Special hazards arising from the substance or mixture**

No data available

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

SECTION 6

## Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

SECTION 7

## Handling and Storage

**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8

## Exposure Controls / Personal Protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

### 8.3 Personal protective equipment

**Eye/face protection**

Wear eye and face protection suitable for corrosive dust exposure and compliant with 29 CFR 1910.133.

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body protection**

Impervious clothing recommended. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where respiratory protection is required, use a NIOSH-approved respirator selected for the identified airborne contaminants and exposure levels in accordance with 29 CFR 1910.134.

**Control of environmental exposure**

Do not let product enter drains.

SECTION 9

## Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **a) Appearance** | Physical state: Solid. Color: White. |
| **b) Odour** | No data available |
| **c) Odour threshold** | No data available |
| **d) pH** | No data available |
| **e) Melting point/freezing point** | No data available |
| **f) Initial boiling point and boiling range** | No data available |
| **g) Flash point** | Not applicable |
| **h) Evaporation rate** | No data available |
| **i) Flammability (solid, gas)** | No data available |
| **j) Upper/lower flammability or explosive limits** | No data available |
| **k) Vapour pressure** | No data available |
| **l) Relative vapor density** | No data available |
| **m) Relative density** | No data available |
| **n) Water solubility** | No data available |
| **o) Partition coefficient: n-octanol/water** | No data available |
| **p) Auto-ignition temperature** | No data available |

| | |
|---|---|
| **q) Decomposition temperature** | No data available |
| **r) Kinematic viscosity** | No data available |
| **s) Explosive properties** | No data available |
| **t) Oxidizing properties** | No data available |
| **u) Particle characteristics** | No data available |

### 9.2 Other safety information

No data available

SECTION 10

## Stability and Reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong acids, strong oxidizing agents.

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions — carbon oxides, nitrogen oxides (NOx), zinc/zinc oxides. Other decomposition products — No data available. In the event of fire: see section 5.

SECTION 11

## Toxicological Information

### 11.1 Information on toxicological effects

**Acute toxicity**

Oral: No product-specific test data available.

Dermal: No product-specific test data available.

Inhalation: No product-specific test data available.

**Skin corrosion/irritation**

Causes severe skin burns (Skin Corr. 1B, H314). No product-specific test data available.

**Serious eye damage/eye irritation**

Causes serious eye damage (as part of H314). No product-specific test data available.

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No product-specific test data available.

**Carcinogenicity**

No product-specific carcinogenicity test data are available.

NTP listing status: No data available for the complete product.

OSHA carcinogen status: No data available for the complete product.

**Reproductive toxicity**

No data available

**Specific target organ toxicity — single exposure**

No data available

**Specific target organ toxicity — repeated exposure**

No product-specific repeated-exposure toxicity test data available.

**Aspiration hazard**

No data available

**Additional information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12

## Ecological Information

**12.1 Toxicity**

No product-specific ecotoxicity data available.

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Other adverse effects**

No data available

SECTION 13

## Disposal Considerations

**13.1 Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

SECTION 14

## Transport Information

**14.1 UN number :** ADR/RID: 3263; IMDG: 3263; IATA: 3263

**14.2 UN proper shipping name :** ADR/RID and IMDG: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (2-Methylimidazole zinc salt). IATA: Corrosive solid, basic, organic, n.o.s. (2-Methylimidazole zinc salt)

**14.3 Transport hazard class(es) :** ADR/RID: 8; IMDG: 8; IATA: 8

**14.4 Packaging group :** ADR/RID: III; IMDG: III; IATA: III

**14.5 Environmental hazards :** ADR/RID: no; IMDG Marine pollutant: no; IATA: no

**14.6 Special precautions for user :** No data available

SECTION 15

## Regulatory Information

**15.1 Safety, health and environmental regulations specific to the substance or mixture**

**SARA 311/312 hazard information (based on Section 2)**

Acute toxicity (any route of exposure): Category 4 (oral).

Skin corrosion or irritation: Category 1B.

SECTION 16

## Other Information

**Full text of hazard statements referred to in Section 2.**

| | |
|---|---|
| **Acute Tox.** | Acute toxicity |
| **H302** | Harmful if swallowed. |
| **H314** | Causes severe skin burns and eye damage. |
| **Skin Corr.** | Skin corrosion |

**Revision summary (1.3, 10/27/2026):** Reformatted to the current ACS Material layout. Product identification and composition information clarified. First-aid measures, storage instructions, exposure controls, physical and chemical properties, toxicological information, ecological information and regulatory information revised. Legacy numerical toxicity values and test-result statements removed. HMIS and NFPA ratings removed. Section 2 hazard classes, categories and label elements unchanged; precautionary statements kept as in the previous version.

**Version 1.3 / EN · Revision Date: 10/27/2026**

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