SAFETY DATA SHEET

# ZSM-5 Series Zeolite (MFI) Powder

*ACS Material ZSM-5 Series Zeolite (MFI) Powder · Version 1.3 / EN · Revision Date: 10/27/2026*

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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 ZSM-5 Series Zeolite (MFI) Powder

**Brand :** ACS Material LLC

**CAS-No. :** 1318-02-1

**SDS scope :** This SDS applies to the following grades as supplied in calcined form: P-25, P-38, P-38-Na, P-117, P-360, P-1200s and P-1500p, in 100 g, 200 g and 1 kg packages.

P-38-Na is supplied in the sodium form.

This SDS does not cover grades supplied in non-calcined form.

| Grade | 100 g | 200 g | 1 kg |
|---|---|---|---|
| **P-25** | MZ5PHB21 | MZ5PHB22 | MZ5PHB31 |
| **P-38** | MSZ5P021 | MSZ5P001 | MSZ5P031 |
| **P-38-Na** | MZ5PSC21 | MZ5PSC22 | MZ5PSC31 |
| **P-117** | MSZ5P221 | MSZ5P222 | MSZ5P231 |
| **P-360** | MSZ50321 | MSZ50322 | MSZ5P131 |
| **P-1200s** | MZ53AS21 | MZ53AS22 | MZ53AS31 |
| **P-1500p** | Z5PP3B21 | Z5PP3B22 | Z5PP3B31 |

**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

**Telephone :** +1 (866)-227-0656

**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 in accordance with 29 CFR 1910.1200 (OSHA HCS)**

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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 :** Warning

**Hazard statement(s)**

| | |
|---|---|
| **H319** | Causes serious eye irritation. |
| **H335** | May cause respiratory irritation. |

**Precautionary statement(s)**

| | |
|---|---|
| **P261** | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. |
| **P264** | Wash skin thoroughly after handling. |
| **P271** | Use only outdoors or in a well-ventilated area. |
| **P280** | Wear protective gloves/ eye protection/ face protection. |
| **P304 + P340** | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| **P305 + P351 + P338** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| **P312** | Call a POISON CENTER or doctor/ physician if you feel unwell. |
| **P337 + P313** | If eye irritation persists: Get medical advice/ attention. |
| **P403 + P233** | Store in a well-ventilated place. Keep container tightly closed. |
| **P405** | Store locked up. |
| **P501** | Dispose of contents/ container to an approved waste disposal plant. |

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

None.

SECTION 3

## Composition / Information on Ingredients

**3.1 Substances**

**Chemical name :** Zeolite ZSM-5 (MFI framework)

**Common name and synonyms :** Molecular sieve ZSM-5; zeolite ZSM-5

**CAS number :** 1318-02-1

**Chemical characterization :** Zeolite, crystalline, synthetic, non-fibrous.

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**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**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.

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

Nature of decomposition products not known.

**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

Store locked up. 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

**Airborne dust**

OSHA permissible exposure limits for particulates not otherwise regulated (PNOR), where applicable:

8-hour TWA: 15 mg/m3 (total dust); 5 mg/m3 (respirable fraction).

These general dust limits do not replace applicable substance-specific exposure limits.

### 8.2 Exposure controls

**Appropriate engineering controls**

Use local exhaust ventilation or enclosed handling to minimize airborne dust. 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 protection suitable for 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. 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. Form: Powder. Color: P-38, white. Other grades covered by this SDS: No data available. |
| **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** | Powder. Average particle size: P-25, 2-5 µm; P-38, P-38-Na, P-117 and P-360, 2 µm. Particle size (D50): P-1500p and P-1200s, <15 µm. |

**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**

Avoid moisture.

### 10.5 Incompatible materials

Strong acids; strong bases; hydrogen fluoride; chlorine trifluoride; ethylene oxide; halogenated hydrocarbons; oxygen difluoride; sodium nitrate; vinyl compounds; strong oxidizing agents.

### 10.6 Hazardous decomposition products

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**

No product-specific test data available.

**Serious eye damage/eye irritation**

Causes serious eye irritation (Eye Irrit. 2A, H319).

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.

IARC Monographs Volume 68 (1997) evaluated synthetic zeolites within the category "Zeolites other than erionite" as Group 3 (not classifiable as to their carcinogenicity to humans). This is a class-level evaluation and is not a product-specific carcinogenicity determination.

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**

May cause respiratory irritation (STOT SE 3, H335).

**Specific target organ toxicity — repeated exposure**

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

**Aspiration hazard**

No data available

**Interactive effects**

No data available

**Additional information**

Causes serious eye irritation. Inhalation of dust may cause respiratory irritation.

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 material 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 DOT (US) :** Not dangerous goods

**14.2 IMDG :** Not dangerous goods

**14.3 IATA :** Not dangerous goods

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)**

Serious eye damage/eye irritation: Eye irritation, Category 2A.

Specific target organ toxicity (single exposure): Category 3 (respiratory tract irritation).

SECTION 16

## Other Information

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

| | |
|---|---|
| **Eye Irrit.** | Eye irritation |
| **H319** | Causes serious eye irritation. |
| **H335** | May cause respiratory irritation. |
| **STOT SE** | Specific target organ toxicity - single exposure |

**Revision summary (1.3, 10/27/2026):** Reformatted to the current ACS Material layout. SDS scope limited to the calcined grades identified in Section 1. 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. Hazard classes and categories in Section 2 remain unchanged.

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

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