SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product identifiers

Product Name : ACS Material Y-Zeolite  
Brand : ACS Material LLC  
CAS-No. : 1318-02-1

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

Identified uses : Laboratory chemicals, Manufacturing of substances

1.3 Details of the supplier of the safety data sheet

Company : ACS MATERIAL LLC  
959 E Walnut St., 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

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name : ACS Material Y-Zeolite  
CAS-No : 1318-02-1  
EC-No. : 215-283-8

<table>
<thead>
<tr>
<th>Components</th>
<th>Concentration</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y-Zeolite</td>
<td>&lt;= 100 wt.%</td>
<td>1318-02-1</td>
</tr>
</tbody>
</table>
Hazardous impurities: None known.

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 adverse effects occur, remove to well-ventilated (uncontaminated) area. If breathing is difficult, qualified personnel may administer oxygen. If not breathing, qualified personnel should give artificial respiration. Seek immediate medical attention.

In case of skin contact
Rinse affected skin thoroughly with soap or mild detergent and water for at least 15 minutes. If skin irritation persists, seek medical aid and bring the container or label.

In case of eye contact
Immediately flush eyes, including under the eyelids, with copious amounts of water for at least 15 minutes. Seek immediate medical attention.

If swallowed
If vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Consult a physician.

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.

Indication of any immediate medical attention and special treatment needed
If any of the above symptoms are present, seek immediate medical attention.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use extinguishing agents appropriate for surrounding fire.

5.2 Special hazards arising from the substance or mixture
Not applicable.

5.3 Advice for firefighters
Move container from fire area if it can be done without personal risk. Avoid inhalation of material or combustion by-products. Wear full protective clothing and NIOSH-approved self-contained breathing apparatus (SCBA).

5.4 Further information
No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use suitable protective equipment.
For personal protection see section 8.

6.2 Environmental precautions
No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up
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
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.
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
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y-zeolite</td>
<td>1318-02-1</td>
<td>TWA 15.000000 mg/m³</td>
<td></td>
<td>USA. Occupational Exposure Limits (OSHA) - total particulates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 5.000000 mg/m³</td>
<td></td>
<td>USA. Occupational Exposure Limits (OSHA) - respirable particulates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 1.000000 mg/m³</td>
<td></td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

**Appropriate engineering controls**

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

8.3 Personal protective equipment

**Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**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.

**Full contact**

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

**Splash contact**

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. 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**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
No special environmental precautions required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

1) Appearance
   Form: solid
   Colour: white
2) Odour
   Odorless
3) Odour Threshold
   No data available
4) pH
   Not applicable
5) Melting point/freezing point
   No data available
6) Initial boiling point and boiling range
   No data available
7) Flash point
   No data available
8) Evaporation rate
   No data available
9) Flammability (solid, gas)
   No data available
10) Upper/lower flammability or explosive limits
    No data available
11) Vapour pressure
    No data available
12) Vapour density
    No data available
13) Relative density
    >1
14) Water solubility
    Negligible
15) Partition coefficient: n- octanol/water
    No data available
16) Auto-ignition temperature
    No data available
17) Decomposition temperature
    No data available
18) Viscosity
    No data available
19) Explosive properties
    No data available
20) Oxidizing properties
    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
Not applicable.

10.4 Conditions to avoid
Avoid generating dust.

10.5 Incompatible materials
Generates heat on contact with water.

10.6 Hazardous decomposition products
Miscellaneous decomposition products.
In the event of fire: see section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral
rat - 10,000 mg/kg

Inhalation LC50
Rat - 4 h - 5,300 mg/m3

LD50 Dermal
rabbit - 2,000 mg/kg

Other information on acute toxicity
No data available.

Skin corrosion/irritation
May cause mechanical irritation.

Serious eye damage/eye irritation
May cause mechanical irritation.

Respiratory or skin sensitisation
No data available.

Germ cell mutagenicity
Human - lymphocyte - Cytogenetic analysis
Mouse - Cytogenetic analysis

Carcinogenicity
Zeolite Y is not listed by IARC, NTP or OSHA as a carcinogen/potential carcinogen.

Reproductive toxicity
No data available.

Specific target organ toxicity - single exposure
No data available.

Specific target organ toxicity - repeated exposure
Prolonged or repeated exposure can cause: Damage to the lungs. Cough, Difficulty in
breathing, Gastrointestinal disturbance.

**Aspiration hazard**
Not applicable.

**Additional Information**
RTECS: ZG6800000
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 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 **Results of PBT and vPvB assessment**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 **Other adverse effects**
Sinks in water.

### SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**

**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**
Dispose of as unused product.

### SECTION 14: TRANSPORT INFORMATION

**UN number**
ADR/RID: -  IMDG: -  IATA: -

**UN proper shipping name**
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods
Transport hazard class(es)
ADR/RID: -  IMDG: -  IATA: -

Packaging group
ADR/RID: -  IMDG: -  IATA: -

Environmental hazards
ADR/RID: no  IMDG Marine pollutant: no  IATA: no

Special precautions for user
No data available

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Authorisations and/or restrictions on use
Not regulated.

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA Hazards.

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
Y-zeolite  CAS-No.  Revision Date
1318-02-1

New Jersey Right To Know Components
Y-zeolite  CAS-No.  Revision Date
1318-02-1

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION
Safety Data Sheet – Y-Zeolite

HMIS Classification
Health hazard: 0
Chronic Health Hazard: 0
Flammability: 0
Physical Hazard: 0

NFPA Rating
Health hazard: 0
Fire Hazard: 0
Reactivity Hazard: 0

Disclaimer: ACS Material, LLC believes that the information in this Safety Data Sheet is accurate and represents the best and most current information available to us. ACS Material makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, ACS Material will not be responsible for damages resulting from use of or reliance upon this information.