SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product identifiers
- **Product Name**: ACS Material Silicon/Silicon Dioxide Wafer
- **Brand**: ACS Material LLC
- **CAS-No.**: 7440-21-3, 7631-86-9

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 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
- **Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**
  - Eye irritation (Category 2)
  - Specific target organ toxicity - single exposure (Category 3)
  - Specific target organ toxicity - repeated exposure (Category 2), Lungs

- **Classification according to EU Directives 67/548/EEC or 1999/45/EC**
  - Irritating to eyes and respiratory system. Harmful: danger of serious damage to health by prolonged exposure through inhalation

2.2 Label elements
- **Labelling according Regulation (EC) No 1272/2008 [CLP]**
  - Pictogram

[![Pictogram](image)](image)
Signal word: Warning

Hazard statement(s):

H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H373: May cause damage to organs (Lungs) through prolonged or repeated exposure.

Precautionary statement(s):

P261: Avoid breathing dust.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements: None

2.3 Other hazards

None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name: ACS Material Silicon/Silicon Dioxide Wafer
CAS-No: 7440-21-3, 7631-86-9
Synonyms: Elemental Silicon; Si; SiO₂.

Hazardous ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>&gt;99.0%</td>
</tr>
<tr>
<td>Silica</td>
<td>7631-86-9</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

For the full text of the phrases mentioned in this Section, see Section 16.

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

In case of skin contact
Flush eyes with water as a precaution.

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
Silicon dioxide

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

Suitable extinguishing media
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

Components with workplace 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 workday.

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166 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.

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
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### 9.1 Information on basic physical and chemical properties

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Appearance</td>
<td><strong>Form:</strong> Solid</td>
</tr>
<tr>
<td></td>
<td><strong>Colour:</strong> Grayish</td>
</tr>
<tr>
<td>2) Odour</td>
<td>Odorless</td>
</tr>
<tr>
<td>3) Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>4) pH</td>
<td>No data available</td>
</tr>
<tr>
<td>5) Melting point/freezing point</td>
<td><strong>Boiling Point:</strong> 2,355-2,600 deg C.</td>
</tr>
<tr>
<td></td>
<td><strong>Melting Point:</strong> 1410 ~ 1420 deg C</td>
</tr>
<tr>
<td>6) Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>7) Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>8) Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>9) Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>10) Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>11) Vapour pressure</td>
<td>1mm at 1,724 deg C.</td>
</tr>
<tr>
<td>12) Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>13) Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>14) Water solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>15) Partition coefficient: n- octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>16) Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>17) Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>18) Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>19) Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>20) Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 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
No data available

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
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
Carcinogenicity - rat - Implant
Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Gastrointestinal:
Tumors. Tumorigenic: Tumors at site or application.
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: No available
SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
See section 11.

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
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: -
IMDG: -
IATA: -

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
ADR/RID: -
IMDG: -
IATA: -
14.4 Packaging group
ADR/RID: -  IMDG: -  IATA: -

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

14.6 Special precaution for user
No data available

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

Further information

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