



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. SS 151  
Effective Date April 9, 1998

## SECTION V HEALTH HAZARD DATA SS 151

**Threshold Limited Value** ACGIH 1992-93 (TLV): TWA = 10 mg/m<sup>3</sup>, for total dust containing no asbestos and less than 1% crystalline silica; STEL 20 mg/m<sup>3</sup> (Dust).

**Effects of Overexposure**  
None known except for inhalation of silicon in the dust form. Inhalation of dust causes irritation to lungs, eyes and mucous membranes.

**Emergency and First Aid Procedures**  
**INHALATION OF DUST:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **EYES:** When dust comes in contact with eyes, do not rub eyes. Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention. **SKIN:** Wash with soap and water.

## SECTION VI REACTIVITY DATA

|                  |                 |   |                            |                                    |
|------------------|-----------------|---|----------------------------|------------------------------------|
| <b>Stability</b> | <b>Unstable</b> |   | <b>Conditions to Avoid</b> | Avoid generation of airborne dust. |
|                  | <b>Stable</b>   | X |                            |                                    |

**Incompatibility (Materials to Avoid)** Strong oxidizing materials, strong bases, acids. Reacts with halides.

**Hazardous Decomposition Products** Silicon reacts with sodium hydroxide to generate flammable hydrogen gas.

|                                 |                            |                       |                 |
|---------------------------------|----------------------------|-----------------------|-----------------|
| <b>Hazardous Polymerization</b> | <b>Conditions to Avoid</b> |                       | Not applicable. |
|                                 | <b>May Occur</b>           | <b>Will Not Occur</b> |                 |
|                                 |                            | X                     |                 |

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Recover for use if not contaminated. Avoid creating dust. Sweep up and place in a suitable container for proper disposal. Flush spill area with soap and water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Uncontaminated material may be disposed of in a sanitary landfill. Check local codes.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

|                    |                             |                  |                |            |
|--------------------|-----------------------------|------------------|----------------|------------|
| <b>Ventilation</b> | <b>Local Exhaust</b>        | <b>If dusty.</b> | <b>Special</b> | <b>No.</b> |
|                    | <b>Mechanical (General)</b> | <b>If dusty.</b> | <b>Other</b>   | <b>No.</b> |

|                          |         |                       |                          |
|--------------------------|---------|-----------------------|--------------------------|
| <b>Protective Gloves</b> | Rubber. | <b>Eye Protection</b> | Chemical safety glasses. |
|--------------------------|---------|-----------------------|--------------------------|

**Other Protective Equipment** Lab coat, apron, eye wash station, proper gloves, ventilation hood.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool place. Wash thoroughly after handling. Do not inhale silicon dust. Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

|                       |                    |                                 |                                       |
|-----------------------|--------------------|---------------------------------|---------------------------------------|
| <b>Revision</b> No. 3 | <b>Date</b> 4/9/98 | <b>Approved</b> Michael Raszeja | <b>Chemical Safety Coordinator</b> MR |
|-----------------------|--------------------|---------------------------------|---------------------------------------|

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## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

|                          |                     |   |                   |   |
|--------------------------|---------------------|---|-------------------|---|
| <b>Product</b>           | SILICON METAL LUMPS | <br><b>CHEMTREC</b><br><b>800-424-9300</b><br>Day 716-226-6177<br><br><b>NFPA HAZARD RATING</b><br>LEAST SLIGHT MODERATE HIGH EXTREME<br>0 1 2 3 4<br><b>HMIS *</b> | <b>Health</b>     | 0 |
| <b>Chemical Synonyms</b> | Silicon Metal       |   | <b>Fire</b>       | 0 |
| <b>Formula</b>           | Si                  |   | <b>Reactivity</b> | 0 |
| <b>Unit Size</b>         | up to 500 grams     |   |                   |   |
| <b>C.A.S. No.</b>        | 7440-21-3           |   |                   |   |

## SECTION II INGREDIENTS OF MIXTURES

| Principal Component(s)                         | %    | TLV Units      |
|--|------|----------------|
| Silicon Metal Lumps                            | 100% | See Section V. |
| <b>CAUTION! DO NOT INHALE AS FUME OR DUST.</b> |      |                |
| <b>NOT HAZARDOUS IN FORM SUPPLIED.</b>         |      |                |
| <b>FLAMMABLE SOLID, IRRITANT AS DUST.</b>      |      |                |

## SECTION III PHYSICAL DATA

|                               |  |  |                 |
|-------------------------------|--|--|-----------------|
| <b>Melting Point (°F)</b>     | 1420°C (2588°F)  | <b>Specific Gravity (H<sub>2</sub>O = 1)</b> | 2.42 @ 20°C     |
| <b>Boiling Point (°F)</b>     | 2620°C (4748°F)  | <b>Percent Volatile by Volume (%)</b>        | Not applicable. |
| <b>Vapor Pressure (mm Hg)</b> | 1 mm @ 1724°C  | <b>Evaporation Rate ( =1)</b>                | Not applicable. |
| <b>Vapor Density (Air=1)</b>  | Not determined.  |  |                 |
| <b>Solubility in Water</b>    | Insoluble.   |  |                 |
| <b>Appearance &amp; Odor</b>  | Metallic silver lumps, cubic, steel-gray crystals or dark brown powder; no odor. |  |                 |

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

|                                  |                |  |     |              |              |
|----------------------------------|----------------|--|-----|--------------|--------------|
| <b>Flash Point (Method Used)</b> | Not flammable. | <b>Flammable Limits in Air % by Volume</b> | N/A | <b>Lower</b> | <b>Upper</b> |
|----------------------------------|----------------|--|-----|--------------|--------------|

**Extinguisher Media** Use any media suitable for extinguishing supporting fire.

## SPECIAL FIREFIGHTING PROCEDURES

None known. In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Dangerous when heated, it will react with water or steam to produce hydrogen; can react with oxidizing materials. Flammable as dust.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20