

# VAN AIR SYSTEMS



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U.S. Department of Labor Occupational Safety and Health Administration (non-mandatory form)  
May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

## Material Safety Data Sheet

### Section 1 – Chemical Product Information

Date Prepared: January 1, 2009

Product: **Activated Alumina (1/8", 1/4", 3/16", 1/2" and Granular)**

Part No.: 33-0237, 33-0238, 33-0240, 33-0241, 33-0266, 33-0267, 33-0268, 33-0281, 33-0320, 33-0321, 33-0367, 33-0370, 33-0371, 33-0372, 33-0373 & 33- 268

| ACTIVATED ALUMINA    |   |
|----------------------|---|
| HEALTH               | 1 |
| FLAMMABILITY         | 0 |
| PHYSICAL HAZARD      | 1 |
| PROTECTIVE EQUIPMENT | E |

### Section 2 – Ingredients/Identity Information

#### Components

| (Specific Chemical Identity/Common Name(s))                 | OSHA PEL          | ACGIH TLV  | Other Limits Recommended | % Optional |
|---|-------------------|--|--------------------------|------------|
| TWA in mg/m <sup>3</sup> unless indicated for alumina dust: | 15,5 (respirable) | 10 (total)   |                          |            |
|   | <u>% Typical</u>  |  |                          |            |
| Al <sub>2</sub> O <sub>3</sub> X H <sub>2</sub> O           | 90.0 – 97.0       | CAS #1333-84-2   |                          |            |
| *Na <sub>2</sub> O  | 0.3 – 0.6         |  |                          |            |
| *SiO <sub>2</sub>   | 0.01 – 0.2        |  |                          |            |
| *Fe <sub>2</sub> O <sub>3</sub>                             | 0.03 – 0.1        | *Expressed as oxide equivalent.  |                          |            |
| Loss on ignition (water)                                    | 4.0 – 7.0         | NOTE: Silicon exists within molecular structures only and does not exist as silicon dioxide. |                          |            |

### Section 3 – Physical Chemical Characteristics

|                                     |  |
|-------------------------------------|--|
| Boiling Point:                      | Undetermined.  |
| Density:                            | 38 – 52#/Ft <sup>3</sup>   |
| Vapor Pressure (mm Hg):             | Not applicable.  |
| Freezing-Melting Point:             | 3,700°F (2038°C)   |
| Vapor Density (Air=1):              | N/A  |
| Solubility in Water:                | Insoluble.   |
| Evaporation Rate (Butyl Acetate=1): | Not applicable.  |
| Solubility in Acids and Alkalis:    | Soluble in concentrated acids and alkalis; pH: ~10 (20% slurry solution) |
| Appearance and Odor:                | Off-White pellets. Odorless.   |

### Section 4 – Fire and Explosion Hazard Information

#### Flammable Properties

|              |                 |
|--------------|-----------------|
| Flash Point: | Not applicable. |
| Method Used: | Not applicable. |

#### Flammability Limits

|      |                 |
|------|-----------------|
| LEL: | Not applicable. |
| UEL: | Not applicable. |

Fire Fighting Instructions: NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Extinguishing Media: Use extinguishing agent applicable to surrounding fire.

Unusual Fire and Explosion Hazards: Not an explosion hazard. Not combustible.

**Section 5 – Reactivity Information**

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|                                       |   |
|---------------------------------------|---|
| Stability (Conditions to avoid):      | Stable. No decomposition if stored and applied as directed. |
| Incompatibility (Materials to avoid): | Heating occurs when water is added.                         |
| Hazardous decomposition/byproducts:   | No dangerous decomposition products known.                  |
| Hazardous Polymerization:             | Will not occur.   |

**Section 6 – Health Hazard Information**

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|                                     |  |
|-------------------------------------|--|
| Potential Health Effects:           | Inhalation, skin and eye contact. Can cause mild irritation.   |
| Health Hazards (acute and chronic): | Alumina is a low health risk by inhalation and should be treated as a nuisance dust as specified by ACGIH. TLV is 10 mg/m <sup>3</sup> . |
| Carcinogenicity:                    | No.  |
| NTP:                                | No.  |
| IARC Monographs:                    | No.  |
| OSHA Regulated:                     | No.  |
| Emergency and First Aid Procedures  |  |
| Eyes:                               | Flush with water for at least 15 minutes.  |
| Skin:                               | Wash with soap and warm water.   |
| Inhalation:                         | Remove to fresh air.   |

**IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION****Section 7 – Precautions for Safe Handling and Use**

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|                        |   |
|------------------------|---|
| Small/Large Spills:    | Clean up using dry procedures; avoid dusting.   |
| Waste Disposal Method: | Collect in containers, bags or covered dumpster boxes. If reuse or recycling is not possible, material may be disposed of at an industrial landfill. Not a RCRA Hazardous Waste. - Not federally regulated. |
| Handling & Storage:    | Avoid eye and skin contact. Do not inhale dust. Keep material dry.  |
| Other precautions:     | Ensure good ventilation/exhaust, prevent formation of dust.   |

**Section 8 – Control Measures**

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|  |   |
|--|---|
| Respiratory Protection (specific type):      | NIOSH-approved dust respirators.          |
| Ventilation:                                 | Use adequate ventilation.                 |
| Local, Mechanical, Special & Other Exhaust – | Not applicable.                           |
| Protective Gloves:                           | Wear gloves to avoid direct skin contact. |
| Eye Protection:                              | Safety glasses.                           |
| Other Protective Clothing & Equipment:       | Use safety equipment when required.       |
| Work/Hygienic Practices:                     | Wash thoroughly after handling.           |

**Section 9 – Regulatory Information/References**

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All components of this product are listed on the TSCA Inventory (USA), WHMIS Domestic Substance List (Canada) and the EINECS Inventory (EC Market). For inventory reporting purposes, CAS# 1344-28-1 was assigned for aluminum hydroxide and activated alumina products. This material fits the EPA Hazard Category definition of Immediate (Acute) Health Hazard under SARA Sections 311, 312. For purposes of SARA III reporting, this substance contains no ingredients listed on the Extremely Hazardous, CERCLA, or Section 313 lists.

Not regulated by USA D.O.T. or Canadian TDG Hazard Class and PIN.

References – American Industrial Hygiene Association (AIHA) Hygienic Guide Series (revised June 1978); U.S. Dept of Health and Human Services; NIOSH; Registry of Toxic Effects of Chemical Substances, 1985-86 Edition; Sax, N. Irving: Dangerous Properties of Industrial Materials, Van Nostrand Reinhold Co. Inc., 1984. American Conference of Governmental Industrial Hygienists, Inc. (ACGIH), Documentation of the Threshold Limit Values & Biological Exposure Indices, Sixth Edition, 1992.