

Material Safety Data Sheet

Issue Date: 10/20/2006

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Section 1: Chemical Product and Company Identification

Cat#: 23678
Part Name: ALUMINA GRADE CG20
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976
Telephone #215-343-6484

Section 2: Composition/ Information on Ingredients

| Item# | Name | CAS# | % in product |
|-------|---------|-----------|--------------|
| 1 | Alumina | 001344281 | 100 |

OSHA (ACGIH) Exposure Limits

| CAS# | IDLH: -- | TWA | | STEL | | CEILING | |
|-----------|----------|--------------|-------|------|-------|---------|-------|
| | | ppm | mg/ | ppm | mg/m3 | ppm | mg/m3 |
| 001344281 | -- | Not classifi | 15,5a | -- | -- | -- | -- |
| OSHA | | | | | | | |
| ACGIH | | -- | 10b | -- | -- | -- | -- |

Section 3: Hazards Identification

Harmful if inhaled.

Hazard Ratings:

These ratings are Polysciences' Inc. own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not available.

| Health | Flammability | Reactivity |
|--------|--------------|------------|
| 1 | 0 | 0 |

Section 4: First Aid Measures

Flush eyes with flowing water for at least 15 minutes.

If swallowed, do not induce vomiting. Do not give anything to drink. Obtain medical attention without delay.

If swallowed, wash out mouth with water if person is conscious.

Remove contaminated clothing.

Remove to fresh air.

Separate eyelids with finger tips.

Wash skin with deluge of water for at least 15 minutes.

Section 5: Fire Fighting Measures

Flash point, deg F.: not combustible Method: nap
UEL: no data LEL: no data Autoignition temperature, deg. F.: no data
Flammability Classification: no data Flame Propagation Rate: no data
Hazardous Combustion Products: no data

Section 6: Accidental Release Measures

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

Protect personnel from exposure.

Sweep up solids.

Use appropriate personal protective equipment.

Section 7: Handling and Storage

Store at room temp

Section 8: Exposure Controls/ Personal Protection

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

Use process enclosures, local exhaust ventilation, or other engineering controls.

Section 9: Physical and Chemical Properties

Formula: no data vapor pressure: no data
Formula Weight: no data vapor density: no data
boiling point: 2977 C Specific gravity: 3.97
melting point: 2050 C ph: no data
solubility: insoluble appearance: white powder

Section 10: Stability and Reactivity

Chemical Stability: stable
Conditions to Avoid: protect from water
Incompatibility with other materials: strong acids, strong bases
Hazardous Decomposition Products: no data
Hazardous Polymerization: will not occur

Section 11: Toxicological Information

Acute Data: TClO Inhalation- rat: 200 mg/m3/5H/28W-I
LD50 Mouse intraperitoneal: > 3600 mg/kg
Subchronic data: no data

Section 12: Ecological Information

no data

Section 13: Disposal Considerations

The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations.

| CAS# | Waste Code | Regulated Name |
|-----------|------------|----------------|
| 001344281 | not listed | not listed |

Section 14: Transportation Data

Refer to bill of lading or container label for DOT or other transportation hazard classification , if any.

Section 15: Regulatory Information

All components of this product are on the TSCA public inventory.

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

| CAS# | Column A | Column B |
|-----------|----------|----------|
| 001344281 | no | no |

State Regulatory Information :If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

| CAS# | MA | MN | NJ | PA | WA |
|-----------|----|----|----|----|----|
| 001344281 | | | | | |

SARA Toxic Release Chemicals(as defined in Section 313 of SARA Title III)
This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

| CAS# | Regulated name | de minimis conc. % | Rep. Thres. |
|-----------|--------------------------------|--------------------|-------------|
| 001344281 | Aluminum oxide (fibrous forms) | 1.0 | not listed |

SARA Extremely Hazardous Substances and TPQs
This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

| CAS# | Regulated name | TPQ (pounds) | EHS-RQ(pounds) |
|-----------|----------------|--------------|----------------|
| 001344281 | not listed | not listed | not listed |

CERCLA
The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

| CAS# | Regulated name | RQ (pounds) |
|-----------|----------------|-------------|
| 001344281 | Not listed | Not listed |

Section 16: Other Information

POLYSCIENCES, INC. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy.

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END OF MSDS