



AR-196 Aggregate

SECTION 1. IDENTIFICATION

Product Identifier	AR-196 Aggregate
Other Means of Identification	Clay Fired Aggregate
Product Family	Silica, Alumina
Recommended Use	Chemical-resistant aggregate. Added to resin-based concrete mix as filler.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	The Stebbins Engineering and Manufacturing Company, 363 Eastern Boulevard, Watertown, NY, 13601, (315) 782-3000, www.stebbinseng.com
Emergency Phone No.	Chemtrec - En Amérique du Nord, 1-800-424-9300, 24 hours Stebbins 24 Hour Contact-, 1-315-788-6624
SDS No.	074

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Inhalation) - Category 4; Eye irritation - Category 2B; Carcinogenicity - Category 1

Label Elements



Signal Word:
Danger

Hazard Statement(s):

- H320 Causes eye irritation.
- H332 Harmful if inhaled.
- H350 May cause cancer.

Precautionary Statement(s):

- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust.
- P264 Wash hands thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/attention.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Aluminum oxide	1344-28-1	45 - 70 %	Al ₂ O ₃	Alumina
Silica, quartz	14808-60-7	30 - 60 %	SiO ₂	Silica

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Clean clothing, shoes and leather goods.

Eye Contact

Flush eye(s) with lukewarm, gently flowing water for 5 minutes, or until dust/particle is removed, while holding eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

No health effects expected. If irritation or discomfort occur, obtain medical advice.

Immediate Medical Attention and Special Treatment

Medical Conditions Aggravated by Exposure

Respiratory conditions, eye conditions.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

Not applicable.

Specific Hazards Arising from the Product

Does not burn.

Not known to generate any hazardous decomposition products in a fire.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

No special precautions are necessary. It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe in this product. Avoid generating dusts. Do not get in eyes. General hygiene considerations: do NOT eat, drink or store food in work areas.

Conditions for Safe Storage

Store in an area that is: well-ventilated, dry.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

For silica, quartz (respirable dust):

OSHA PEL: 10 mg/m³ / (%SiO₂ + 2); 8 hour TWA

ACGIH TLV: 0.025 mg/m³; 8 hour TWA

NIOSH REL: 0.05 mg/m³; 8 hour TWA

NIOSH IDLH: 50 mg/m³

Canadian Provincial Limits:

Canada Labour Code: 0.025 mg/m³

AB, BC, MB, NL, NS, PE: 0.025 mg/m³

NB: 0.1 mg/m³

SK: 0.05 mg/m³

ON: 0.05 mg/m³

NU, NT, QC: 0.1 mg/m³

YT: 300 particles/mL

For silica, quartz (total dust):

OSHA PEL: 30 mg/m³ / (%SiO₂ + 2)

Appropriate Engineering Controls

General ventilation is usually adequate. In a confined space: use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear approved safety glasses.

Skin Protection

Not required.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Brown - tan. Particle Size: Not available
Odour	Odourless
Odour Threshold	Not applicable
pH	Not applicable
Melting Point/Freezing Point	2930 °F (1610 °C) (Silica, quartz) (melting); 2930 °F (1610 °C) (Silica, quartz) (freezing)
Boiling Range	4046 °F (2230 °C) (Silica, quartz)
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Will not burn.

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Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	2.35
Solubility	Insoluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid
Molecular Formula	Not available
Molecular Weight	Not available
Bulk Density	146.7 lb/ft ³ (2349.9 kg/m ³)
Surface Tension	Not applicable
Critical Temperature	Not available
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not applicable
Saturated Vapour Concentration	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

None known.

Incompatible Materials

None known.

Hazardous Decomposition Products

None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; eye contact.

Skin Corrosion/Irritation

Not a skin irritant.

Serious Eye Damage/Irritation

May cause very mild irritation based on information for closely related chemicals.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

At high concentrations may cause lung injury, nose and throat irritation.

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Skin Absorption

Not harmful.

Ingestion

May cause irritation of the mouth, throat and stomach.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

At high concentrations if inhaled: may cause lung injury.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer.

Carcinogenicity

If inhaled: Known human carcinogen. (Silica, quartz)

IARC: Group 1 – Carcinogenic to humans. ACGIH®: A2 – Suspected human carcinogen. NTP: Known human carcinogen. (Silica, quartz)

Reproductive Toxicity**Development of Offspring**

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

Studies were not located.

Bioaccumulative Potential

This product and its degradation products are not known to bioaccumulate.

Mobility in Soil

If released into the environment, this product does not move through the soil.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT		Non-Regulated		
IATA (Air)		Non-Regulated		
IMO (Marine)		Non-Regulated		
Canadian TDG		Non-Regulated		

Environmental Not applicable

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Hazards

Special Precautions Not applicable

Transport in Bulk according to International Maritime Organization Instruments

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 1 Flammability - Not assigned. Instability - Not assigned.

SDS Prepared By B.E.R

Phone No. (315) 782-3000

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Revision Indicators Revision 4 reviewed and approved

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists

HSDB® = Hazardous Substances Data Bank

IARC = International Agency for Research on Cancer

NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health

NTP = National Toxicology Program

OSHA = US Occupational Safety and Health Administration

RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer NOTE: The information contained herein is, to the best of our knowledge, accurate and reliable. However, no warranty is expressed or implied regarding the accuracy of this information, or the results to be obtained from the use thereof.

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