



SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Activated Alumina
PRODUCT SYNONYM(s): Aluminum oxide
CAS NUMBER: 1344-28-1
RECOMMENDED USE: Adsorbent, fluid filtration
SUPPLIER/MANUFACTURER'S NAME: Carbon Chemistry Ltd.
ADDRESS: 34501 E Quincy Ave Bldg 1A, Watkins, Colorado 80137
BUSINESS PHONE: +1 (888) 446-8421
EMERGENCY PHONE: 24 HR. EMERGENCY TELEPHONE NUMBERS
 CHEMTREC: CCN832309 (800) 424-9300
DATE OF PREPARATION: November 24, 2019
DATE OF LAST REVISION: August 3, 2018

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the mixture

This product does not meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 and WHMIS 2015.

Component(s) Contributing to Classification(s)

None Applicable

GHS Label elements, including precautionary statements

Pictogram(s):

None Applicable

Signal Word:

None Applicable

GHS Hazard Classification(s):

Not Classified

Hazard Statement(s):

None Applicable

Prevention Statement(s):

None Applicable

Response Statement(s):

None Applicable

Storage Statement(s):

None Applicable

Disposal Statement(s):

None Applicable

Other Hazards

None applicable.

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	WT %	GHS CLASSIFICATION
Aluminum Oxide	1344-28-1	90-100	NOT CLASSIFIED

Additional Information: See SECTION 16 for full classification phrases.

SECTION 4 - FIRST-AID MEASURES

Description of first aid measures

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and SDS to health professional with contaminated individual.

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.



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SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

Most important symptoms and effects, both acute and delayed

Dust may cause mechanical eye irritation.

Medical conditions aggravated by exposure:

This material or its emissions may aggravate pre-existing disorders involving any target organs mentioned in this Safety Data Sheet as being at risk.

Indication of immediate medical attention and special treatment needed

Treat symptoms and reduce over-exposure.

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing media

Water, Dry powder / dry sand, alcohol-resistant foam, dry chemical or CO₂.

Specific hazards arising from the chemical

None known.

Explosion Sensitivity to Mechanical Impact:

Not Sensitive.

Explosion Sensitivity to Static Discharge:

Not Sensitive.

Minimum Ignition Energy (M.I.E.):

No Data at this time

Special firefighting Procedure

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Small Spill:

Sweep or vacuum material. Transfer to secondary container to be properly disposed.

Large Spill:

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Dike area of spill to prevent spreading. Pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. Notify proper authorities that a spill has occurred.

Environmental precautions

Do not let product enter drains, do not allow to sewers/surface or ground water. See Section 12, Ecological information.

Methods and material for containment and cleaning up

Pick up released product with appropriate implements & return to original container if reusable, or dispose. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

General Procedures:

Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday.

Keep away from food, drink and animal feeding stuffs.

Handling:

Avoid dust formation. Provide sufficient air exchange and/or exhaust in work rooms. In case of insufficient ventilation, wear suitable respiratory equipment. For personal protection see section 8. Handle and open container with care.

If you require advice on safe handling techniques or specific uses, please contact your supplier or check the further information referred to in section 16.

Storage:

Keep only in the original container. Keep containers tightly closed in a cool, well-ventilated place.



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Specific end uses

Adsorbent, fluid filtration.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

Control parameters

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH	OSHA
Aluminum Oxide	1344-28-1	Not Listed	Not Listed

Exposure Controls

Currently, International exposure limits are established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses are recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

HAND PROTECTION: Use protective gloves as appropriate to minimize skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Information on basic physical and chemical properties

PHYSICAL STATE:	Solid
ODOR:	Not Available
ODOR THRESHOLD (PPM):	Not Available
APPEARANCE / COLOR:	White solid
pH:	Not Available
MELTING / FREEZING POINT (F°):	Not Applicable
BOILING POINT (F°):	Not Applicable
FLASH POINT (F°):	Not Applicable
EVAPORATION RATE (nBuAc = 1):	Not Applicable
FLAMMABILITY (solid, gas):	Not Applicable
FLAMMABLE LIMITS (in air by volume, %):	Not Applicable
VAPOR PRESSURE (mmHg):	Not Applicable
VAPOR DENSITY (AIR=1):	Not Applicable
RELATIVE DENSITY	Not Available
SOLUBILITY IN WATER (%)	Insoluble
PARTITION COEFFICIENT: N-OCTANOL/WATER:	Not Applicable
AUTOIGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Applicable
VISCOSITY:	Not Applicable
EXPLOSIVE PROPERTIES:	Not Applicable
OXIDISING PROPERTIES:	Not Applicable



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Other Information

SPECIFIC GRAVITY 4°C: (Water = 1)

Not Available

DENSITY:

Not Available

VOC:

Not Applicable

WEIGHT PER GALLON:

Not Applicable

SECTION 10 - STABILITY and REACTIVITY

Reactivity: No data is available.

Chemical Stability: Product is stable under recommended storage conditions.

Possibility of Hazardous Reactions: No data available.

Conditions to avoid: No data available.

Incompatible materials: Strong acids, strong oxidizing agents.

Hazardous Decomposition Products: No data available.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

TOXICITY DATA: No specific data available for this product.

POTENTIAL HEALTH HAZARDS OR RISKS FROM EXPOSURE:

IRRITANCY OF PRODUCT: Exposure with this product can be irritating to exposed eyes.

SENSITIZATION OF PRODUCT: This product is not considered a skin sensitizer.

CARCINOGENICITY: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, or suspected to be, cancer-causing agents by these agencies.

GERM CELL MUTAGENICITY INFORMATION: This product does not contain components which are documented as Germ Cell Mutagenicity hazards.

REPRODUCTIVE TOXICITY INFORMATION: This product does not contain components which are documented as reproductive hazards.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: No specific data available for this product.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: No specific data available for this product.

ASPIRATION HAZARD This product is not anticipated to be an aspiration hazard.

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

Toxicity

No specific data available on this product.

Persistence and degradability

No specific data available on this product.

Bioaccumulative potential

No specific data available on this product.

Mobility in soil

No specific data available on this product.

Results of PBT and vPvB assessment

No specific data available on this product.

Other adverse effects

No specific data available on this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.



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COMMENTS: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional/local authority requirements.

SECTION 14 - TRANSPORTATION INFORMATION

US DOT/IMDG/IATA:

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS NUMBER and DESCRIPTION: N/A

UN IDENTIFICATION NUMBER: N/A

PACKING GROUP: N/A

DOT LABEL(S) REQUIRED: N/A

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2016): N/A

MARINE POLLUTANT: Ingredients are not classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: No Chronic Health: No Fire: No Reactivity: No

U.S. CERCLA REPORTABLE QUANTITY (RQ):

CERCLA Reportable Quantity RQ: None

CLEAN WATER ACT:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

STATE REGULATIONS: None.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain chemicals on the Prop 65 list.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

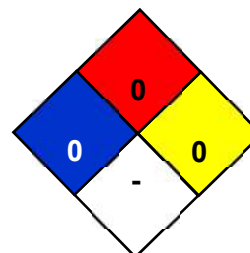
CANADIAN WHMIS CLASSIFICATION and SYMBOLS: This product is categorized as per WHMIS 2015 Hazardous Product Regulations.

SECTION 16 - OTHER INFORMATION

HMIS RATING

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

NFPA RATING



Caution: HMIS and NFPA ratings are based on a 0-4 rating scale
0= Minimal Hazard, 1= Slight, 2= Moderate, 3= High, 4= Extreme



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GENERAL STATEMENTS:

Key or Legend to abbreviations and acronyms

AIHA	- American Industrial Hygiene Association
ACGIH	- American Conference of Governmental Industrial Hygienists
CASRN	- Chemical Abstract Services Registry Number
CFR	- Code of Federal Regulations
D.O.T.	- United States Department of Transportation
IARC	- International Agency for Research on Cancer
OSHA	- Occupational Safety and Health Administration
NIOSH	- National Institute for Occupational Safety and Health
NTP	- National Toxicology Program
PPM	- Parts per million
mg/m ³	- milligram per cubic meter
kg	- kilogram
L or l	- Liter
n.o.s.	- not otherwise specified
Lbs.	- Pounds
mm ² /s	- millimeters squared per second
PMCC	- Pensky-Martens Closed Cup
LC50	- Lethal Concentration 50 (concentration in water having a 50% chance of causing death to aquatic life)
EC50	- Effective Concentration that causes 50% inhibition in growth or mobilization
OECD	- Organization for Economic Cooperation and Development
SOCMI	- Synthetic Organic Chemical Manufacturing Industry
VOC	- Volatile Organic Compound

PREPARED BY: Chris Eigbrett

MSDS to GHS Compliance (www.msdstoghs.com)

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Revision History:

August 3, 2018 - Document creation.
November 24, 2019 - Address update

END OF SDS