



SAFETY DATA SHEET (SDS)

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SDS No.: CWL-F001-AE
Revised: 10FEB2024
Replaces: SST Abrasive
Aluminum Oxide SDS

Section 1 Identification

Product Name: CenterLine® Cold Spray Abrasive – Aluminum Oxide
Product Numbers: SST-G0001, SST-G0002
Synonyms: Brown Alumina, Brown Aluminum oxide
Recommended Use: Low Pressure Cold Spray
Manufacturer: CenterLine (Windsor) Ltd, 415 Morton Drive, Windsor, Ontario N9J 3T8, Canada
US Office: 1985 Ring Drive, Troy MI 48083, USA
General Information: T:519-734-8464 / F:519-734-2000 / Email: info@cntrline.com
Emergency: 800-423-0367 / 519-259-4307

Section 2 Hazard(s) identification

Classification of the Substance

Regulation (EC) No.1272/2008 (CLP): Not Applicable

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS): Not Classified

Label Elements

Regulation (EC) No.1272/2008 (CLP): Not Classified.

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS): Not Classified.

Additional information:

Product has less than 0.1% inhalable dust containing known and/or suspect carcinogens per established guidelines, and is therefore not classifiable as a carcinogen.

There are no other hazards not otherwise classified that have been identified.

Section 3 Composition/Information on Ingredients

Ingredients	CAS Number	EINECS NO.	% WT	OSHA-PEL ^a	ACGIH-TLV ^a
Aluminum Oxide	1344-28-1	215-691-6	> 90	10 mg/m ³ (Total) 5 mg/m ³ (Resp)	1 mg/m ³ (as Al, Resp)
Silica, fused	6731-86-9	231-545-4	< 5	NA	0.025 mg/m ³
Titanium Dioxide	13463-67-7	236-675-5	< 5	15 mg/m ³ (Total) 5 mg/m ³ (Resp)	10 mg/m ³
Diiron Trioxide	1309-37-1	215-168-2	< 5	15 mg/m ³ (Total) 5 mg/m ³ (Resp)	5 mg/m ³ (Total)
Dangerous Components					
Titanium Dioxide	13463-67-7	236-675-5	< 5	15 mg/m ³ (Total)	10 mg/m ³

Section 4 First-aid measures

Skin: If dust gets on skin, wash contaminated area with soap and water. Remove and wash contaminated clothing. If rash, irritation, or other symptoms persist, seek medical attention.
Eyes: Immediately flush with large amounts of water as needed. If symptoms persist, seek medical attention.
Inhalation: Remove to fresh air. Apply artificial respiration as needed. Obtain first aid or medical assistance.
Ingestion: Leave decision to induce vomiting to a doctor, since particulates may be aspirated into the lungs. Seek medical attention.

Section 5 Fire-fighting measures

Flammable Conditions: This abrasive product is non-combustible and does not pose fire or explosion hazards, and will initiate or contribute to the intensity of a fire.

Means of Extinction: As appropriate for surrounding fire.

Hazardous Combustion Products: NA

Advice for firefighters: A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Extinguish preferably with dry chemical, foam, or water spray.

Section 6 Accidental release measures

Clean-Up Procedures: Steps to be taken in cast material is released or spilled: Clean up using methods, which avoid

dust generation. If vacuum is used, exhaust air should be filtered by a high-efficiency particulate air (HEPA) filter. Compressed air should not be used to clean up spills. Place material into a dry container with a clean shovel, and cover. Comply with Federal, Provincial, and Municipal regulations regarding reporting of spills and disposal.

Personal precautions, protective equipment and emergency procedures: During cleanup, skin and eye contact and inhalation of dust should be avoided as much as possible. When necessary, wear appropriate personal protective equipment (See Section 8: Exposure Control/Personal Protection).

Environmental precautions: Refer to Section 12.

Section 7 Handling and storage

Safe handling procedure: Keep product in container. Handle in such a way to minimize from being dispersed in the work environment. Store in containers indefinitely with not risk of health hazard. Utilize approved dust respirator when acute dustiness has occurred in work environment. Handle with adequate ventilation for nuisance dust. See OSHA 29 CFR 1910-94 (Ventilation) and 29 CFR 1910.1000 (Air Contaminants).

Hygienic Practices: Wash hands thoroughly after handling, and before eating or smoking. Smoking and consumption of food or beverages should be restricted from areas where hazardous dust or chemical may be present. Do not shake clothing, rags, or other items to remove dust. Dust should be removed by laundering or vacuuming (with appropriate filters) the clothing, rags, or other items.

Conditions for safe storage: No special requirements.

Section 8 Exposure controls/personal protection

Exposure Limits: Refer to Section 3

Appropriate engineering controls: Use local and/or general dilution ventilation, as needed, to reduce employees exposure to below applicable OSHA PEL's and ACGIH TLV's

Individual protection measures



Gloves: As needed to prevent skin contact with abrasive dust.

Respiratory Protection: For protection in normal use, where particulate concentrations do not reach IDLH conditions, a Full Face piece, Positive-Pressure or Pressure-Demand, Supplied-Air Respirator (SAR) or Airline Respirator is recommended. For IDLH or Hazardous situations a Helmet/Hood or Full Face piece, Pressure-Demand or Positive- Pressure, Self-Contained Breathing Apparatus is recommended. Respirator selection is determined based on air born particulate concentration, and therefore will vary from location to location. This could be due to differences in facilities, ventilation, as well as the number of processes causing dust emissions. Employers should review the NIOSH/ANSI standards for Assigned Protection Factors in order to choose a correct respirator based on particulate concentration. Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators equipped with dust filters.

Eye Protection: Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Footwear: Wear boots.

Clothing: Clothing which minimizes skin exposure to abrasive dust.

**Section 9 Physical and chemical properties**

Physical State Solid, powder	Odour and Appearance Odourless, Black or Green	Odour Threshold (ppm) NA
Specific Gravity 3.97	Vapour Density NA	Vapour Pressure (mmHg) NA
Evaporation Rate NA	Boiling Point (°C) 3500	Freezing Point (°C) NA
PH NA	Coefficient of Water/Oil Distribution NA	Solubility in Water (optional) Insoluble

Note: These are typical values and do not constitute a specification.

Section 10 Stability and reactivity

Reactivity: NA

Chemical Stability: Stable under normal shipping and handling conditions.

Conditions to avoid: NA

Incompatible materials: NA

Hazardous decomposition products: Toxic metal oxide smoke

Section 11 Toxicological information**Irritancy of Product**

Material may cause irritation to the eyes (most likely only as a foreign object), skin, and respiratory system. It may cause gastrointestinal irritation if large amounts are consumed.

Skin Sensitization: On contact may cause reversible irritation

Respiratory Sensitization: No sensitizing effects known.

Carcinogenicity:

Crystalline silica and titanium dioxide are suspect or confirmed carcinogens under ACGIH, NTP, IARC and/or the state of California (respirable particles).

Reproductive Toxicity: Does not cause such effect

Teratogenicity: No info available

Embryotoxicity: No info available

Mutagenicity: No info available

Name of Toxicologically Synergistic Products/Effects: No info available

Numerical measures of toxicity

The following data has been determined for the elements that may be constituents:

Titanium dioxide: LD₅₀, rat, oral >20,000 mg/kg; LD₅₀, rabbit, dermal >10,000 mg/kg;
LD₅₀/4h, rat, inhalative >6.82 mg/l

Section 12 Ecological information

For ecological information pertaining to these chemicals, data can be obtained through such organizations as The Ministry of Environment, ESIS: European chemical Substances Information System, as well as the HSDB: Hazardous Substance Data Bank.

Section 13 Disposal considerations

Waste Disposal Methods: Any hazardous wastes should be shipped to a permitted waste disposal facility. Due to the fact that processing/use of the product could potentially alter its characteristics (and consequently its waste management classification), instructions on proper disposal processes should be identified through contact with appropriate environmental regulatory agencies.

Section 14 Transport information

DOT: Not regulated as dangerous goods.

IATA: Not regulated as dangerous goods.

IMDG Code: Not regulated as dangerous goods.

Section 15 Regulatory information

IARC: Not listed



NTP: Not listed
OSHA: Aluminum oxide (with less than 1% crystalline silica) as A4 (Not Classifiable as a Human Carcinogen).
DSL: All ingredients are listed.
TSCA: All ingredients are listed.
Substances of Very High Concern (SVHC) according to REACH, Article 57: Not Listed
Chemical Safety Assessment: No

Section 16 Other information

Acronyms:

ACGIH	= American Conference of Governmental Industrial Hygienists
CAS	= Chemical Abstract Service
CEHS	= Center for Environmental Health & Safety
CFR	= Code of Federal Regulations
DOT	= Department of Transportation
DSL	= Domestic Substances List
EINECS	= European Inventory of Existing Commercial Substances
IMDG	= International Maritime Dangerous Goods
IARC	= International Agency for Research on Cancer
IDLH	= Immediately Dangerous to Life or Health
LC ₅₀	= Lethal dose (50 percent kill)
LD _{Lo}	= Lowest published lethal dose
NA	= Not applicable
ND	= Not determined
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible exposure limit
TDG	= Transportation of Dangerous Goods
TDUST	= Total dust
TLV	= Threshold limit value
TSAC	= Toxic Substances Control Act (United States)
UN	= United Nations
% WT	= Percent weight

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