

## 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  
**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  
**Directive 67/548/EEC or Directive 1999/45/EC:** Not Applicable  
**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):** Carc. 2 H351

### Label Elements

**Regulation (EC) No.1272/2008 (CLP):** Not Required  
**Directive 67/548/EEC or Directive 1999/45/EC:** Not Required  
**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):**



**GHS08**

**Signal Words:** WARNING

**Hazard Statements:** H351-Suspected of causing cancer

**Precautionary statements:** Applicable only within the United States (USA)

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P202: Do not handle until all safety precautions have been read and understood.

P308 + P313: If exposed or concerned: Get medical advice/attention.

## Section 3 Composition/Information on Ingredients

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

## 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 case 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 no 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



<b>Physical State</b> Solid, powder	<b>Odour and Appearance</b> Odourless, Black or Green	<b>Odour Threshold (ppm)</b> NA
<b>Specific Gravity</b> 3.97	<b>Vapour Density</b> NA	<b>Vapour Pressure (mmHg)</b> NA
<b>Evaporation Rate</b> NA	<b>Boiling Point (°C)</b> 3500	<b>Freezing Point (°C)</b> NA
<b>PH</b> NA	<b>Coefficient of Water/Oil Distribution</b> NA	<b>Solubility in Water (optional)</b> 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: LD<sub>50</sub>, rat, oral >20,000 mg/kg; LD<sub>50</sub>, rabbit, dermal >10,000 mg/kg;

LD<sub>50</sub>/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:** 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 <sub>50</sub>	= Lethal dose (50 percent kill)
LD <sub>Lo</sub>	= 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
UN number	= Designation assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.
% WT	= Percent weight

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\* End of SDS CWL-F001-AE \*