



Security Devices International Inc.

CS Powder (S-1080 CS)

Safety Data Sheet, Version C-1

Last Updated: August 31, 2017



WARNING

All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state, and local laws, regulations, and ordinances. If, after carefully reading the information included in this Safety Data Sheet, you have questions or doubts as to how to use the device, do not use it before consulting your supervisor, or the manufacturer. If your supervisor has any questions or doubts, they should consult the manufacturer before use. See "SECTION XVI – Other Information" for further information below.

SECTION I – Identification

Product Name: CS Tactical Powder (S-1080 CS) 40mm Less-Lethal Projectile
 Product Use: Incapacitant Projectile Fill (o-Chlorobenzalmalononitrile)
 Manufacturer: Security Devices International Inc.
 Address: 9325 Puckett Road, Perry, Florida 32348 USA
 Emergency Telephone Number: (978) 868-5011

SECTION II – Hazard Identification

Payload: Unusual Fire and Explosion Hazards: None
 HMIS Rating: Health: 1 Flammability: 0 Reactivity: 0
 Caution! Explosive. Keep away from heat. Do not subject to mechanical shock. Particles from firing may be harmful if inhaled. Do not take internally.
 HMIS Rating: Health: 0 Flammability: 0 Explosive: 2
 National Fire Protection Association (NFPA): Mixture. Not rated.

Primer: *Human Threshold Response Data*
 Odor Threshold: Unknown
 Irritation Threshold: Unknown
 Immediately Dangerous to Life or Health (IDLH) Value(s): The IDLH for this product is not known. The IDLH for copper and lead is 100 mg/m³. The IDLH for nitroglycerin is 75 mg/m³. The IDLH for dibutyl phthalate is 4000 mg/m³.

SECTION III – Composition/Information on Ingredients

Payload: Active Components: o-Chlorobenzalmalononitrile (CAS#2698-41-1)
 Formula: $ClC_6H_4CHC(CN)_2$
 Synonyms: CS
 Certified Level: 2.5%+/-0.02%
 Inert Ingredients: A proprietary combination of inert carriers and dispersion agents.
 Total Amount: 6 grams, Powder



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	CAS Number	Components	% By Weight	INECS/ ELINCS #	EU Classification	
					Symbol	R-Phrase
Primer:	7440-50-8	Copper	40-75	231-159-6	None	None
	7440-66-6	Zinc	20-35	231-175-3	F (as dust of powder)	R15-17
	9004-70-0	Nitrocellulose	2-17	Not listed	E*	R 2
	55-63-0	Nitroglycerin	1-3	200-240-8	E, T+, N	R 3-26/27/28-33-51-53
	84-74-2	Dibutyl phthalate	0.2-3	201-55-74	None	None
	15245-44-0	Normal Lead styphnate	0.1-1	239-290-0	E, T, N	R61-3-20/22-33-50/53-62

*This material is not listed in Annex 1 of Directive 88/379/EEC. SDI has classified the material according to the conventional method based upon information from similar materials.

SECTION IV – First Aid Measures

Inhalation	If breathing is difficult, administer oxygen. Symptoms may include: coughing, sneezing, burning eyes and skin, nausea and possibly vomiting. If high concentrations are inhaled, immediately remove subject to fresh air. Keep person calm. If not breathing, begin artificial respiration. If breathing difficulty persists, seek medical attention.
Skin Contact:	In case of contact, wash skin with soap and water to prevent further exposure. Flush skin with copious amounts of cool water to minimize irritant effect. Wash contaminated clothing before reuse. Do not apply salves or dressing to affected areas.
Eye Contact:	In case of contact, wash skin with soap and water to prevent further exposure. Flush skin with copious amounts of cool water to minimize irritant effect. Wash contaminated clothing before reuse. Do not apply salves or dressing to affected areas.
Ingestion:	Although ingestion is unlikely and not considered a potential route of exposure, individuals should be treated as having an acute non-specific airway reaction by an appropriate specialist. Do not induce vomiting.
Delayed Effects:	Rubefacient effects usually subside within 30 minutes. Cool water or cool circulating air will minimize discomfort.
Advice to Physician/Special Considerations:	Inhalation may aggravate or initiate asthmatic episodes. Pre-existing skin disorders may be aggravated by exposure to this material. Treat patient as if acute non-specific upper airway reaction.

SECTION V – Fire-fighting Measures

Payload:	Explosion Data:	Non explosive. No upper or lower explosive limits.
	Flash Point:	Non-flammable
	Extinguishing Media:	Use extinguishing media appropriate to surrounding fire conditions.
Primer:	Smokeless Powder Charge:	3.5 grains / 226.7962 mg
	OSHA Regulatory Status:	Explosive

SECTION VI – Accidental Release Measures

Respiratory Protection:	NIOSHA approved respirator
Ventilation:	Mechanical ventilation to keep exposure below recommended limits.
Protective Gloves:	Rubber, PVA, or neoprene
Eye Protection:	Safety goggles or face shield
Skin Protection:	Use appropriate barrier clothing.



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SECTION VII – Handling and Storage

Precautions To Be Taken in Storage and Handling:	Keep tightly closed. Store in a cool dry place.
Proper Disposal of Containers:	Dispose of in municipal waste in accordance with Federal, State, or Local regulations or offer for recycling if appropriate for area.

SECTION VIII – Exposure Controls and Personal Protection

Ventilation:	Good general ventilation should be sufficient for most conditions.
Respiratory Protection:	When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator (if needed).
Eye Contact:	For high potential exposure chemical goggles or full face screen are recommended because eye contact with this material may cause some pains or eyes irritate. For low and moderate potential exposure use safety glasses.
Protective Clothing:	For brief contact, no precautions other than clean body covering clothing should be needed. Use cotton gloves when prolonged or frequently repeated contact could occur.

SECTION IX – Physical and Chemical Properties

Boiling Point:	N/A
Percent Volatile:	0%
Vapor Pressure (mmHg):	N/A
Appearance:	Finely ground dense powder
Color:	White to off-white/buff
Specific Gravity:	<1
Solubility in Water:	0.5%
Odor:	Pungent, irritating
Evaporation Rate:	0

SECTION X – Stability and Reactivity

Chemical Stability	Stable
Incompatible/Materials to Avoid:	None
Hazardous Decomposition Products:	Will not occur
Hazardous Polymerization Products:	Will not occur

SECTION XI – Toxicology Information

Primary Routes of Entry:	Inhalation, Skin, Eyes
User Exposure:	Skin contact with powder may cause temporary acute pain and rubefacient effect.
Carcinogenicity:	None of the components present in this product are listed by IARC, NPT, OSHA, or ACGIH as a carcinogen.
Exposure Guidelines:	PEL: 1000 ppm 8 Hr. TWA / STEL: 1000 ppm / WEEL: 1000 ppm

SECTION XII – Ecological Information

California:	This material does not contain any components listed under California Proposition 65.
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Clean Air Act Amendments of 1990 (CAA 40 CFR):	No components are listed as hazardous air pollutants. The product is not made with nor does it contain any Class 1 or Class 2 ozone depleting substances as defined under the amendments to the act.
Clean Water Act (40 CFR 116):	Not listed
Canadian WHMIS:	Not a controlled product
CERCLA:	Not a hazardous substance as referenced in 40 CFR 302.4. It is not on the list of hazardous substances under the clean water act (40 CFR 116 and 117).

SECTION XIII – Disposal Considerations

Protective Equipment:	Wear goggles and use NIOSH/MSHA approved respirator or self-contained breathing apparatus (SCBA) and full protective clothing to protect from incapacitating effects of capsaicin exposure.
Procedure To Be Followed in Case of Leak or Spill:	Evacuate area, sweep up material, place in bag and hold for waste disposal. Care should be taken to avoid causing dust to become airborne. Ventilate area and wash spill site with water after material pickup is complete.
Waste Disposal Measures:	Not considered a hazardous waste as referenced in 40 CFR 261.24 or 261.3.

SECTION XIV – Transport Information

U.N. Proper Shipping Name:	Ammunition, tear-producing with burster, expelling charge or propelling charge
U.N. Classification Number:	UN0301
U.N. Classification Code:	1.4 G
Reference Number:	EX2016020554
Product Designation/Part Number:	Blunt Impact Projectile (BIP) 40mm with Irritant (D/N: DWG-1653, Rev D)

SECTION XV – Regulatory Information

SECTION XVI – Other Information

Last Revision:	August 31, 2017
Shelf Life:	Five (5) Years

The information contained herein this Safety Data Sheet (SDS) is believed to be accurate and reliable: however, no warranty either expressed or implied is made. Conditions under which this information may be applied are beyond Security Devices International's (SDI) control and therefore SDI can assume no liability for results of its application. This product is designed to be used by persons having sufficient skill to make informed judgments regarding its application. Additionally, if this SDS is more than three years old, you should contact SDI at the phone number listed below to make certain that this sheet is current