Security Devices International Inc.

Inert Powder (S-1100 IN)

Safety Data Sheet Version: C-1
Last Updated: April 18, 2016

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:	Inert Marking Powder (S-1100 IN)
Product Use:	Projectile Fill
Manufacturer:	Security Devices International Inc.
Address:	25 Sawyer Passway, Fitchburg MA 01420
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
Primer:	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.		
	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:	None
	Inert Ingredients:	A proprietary combination of inert carriers colorant and dispersion agents.
	CAS #	**Composition**
	7727-43-7	Barium Sulfate ($BaSO_4$)
	112926-00-8	Non-crystalline amorphous precipitated silica (SiO_2)

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	CAS Number	Components	% By Weight	INECS/ ELINCS #	EU Classification	
					Symbol	R-Phrase
Powder Charge:	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.

OSHA REGULATORY STATUS: Explosive

SECTION IV – First Aid Measures

Inhalation:	If high concentrations are inhaled, immediately remove subject to fresh air. Get medical help for any breathing difficulty.
Skin Contact:	Wash skin with mild soap and water.
Eye Contact:	Flush throughly with plenty of water for at least 15 minutes. Get medical help if irritation persists.
Ingestion:	Although ingestion is unlikely and not considered a potential route of exposure, if patient is conscious give large quantities of water to induce vomiting. Get medical attention.
Advice to Physician/Special Consideration:	Treat symptomatically for lung or eye irritation, if present.

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:	Leather or rubber gloves
Eye Protection:	Safety goggles or face shield
Skin Protection:	Use rubber apron if convenient for operation.

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

Primary Routes of Entry:	Inhalation, Skin, Eyes
User Exposure:	Skin contact with powder may cause slight during or mechanical irritation due to abrasion.
Carcinogenicity:	None of the components present in this product are listed by IARC, NPT, OSHA, or ACGIH as a carcinogen.
Chronic Health Effects:	Heavy extended industrial exposure to the dust by produce a benign pneumoconiosis, termed Baritosis. The reaction results in no impairment of ventilatory function. Mild bronchial irritation may occur.
Threshold Limit Values:	5 mg/m3 Respirable Dust (OSHA PEL) 10 mg/m3 Total Dust (ACGIH) 15 mg/m3 Total Dust (OSHA)
Summary of Health Risks:	Barium sulfate and amorphous silica are practically non-toxic and chemically non-irritating. Not absorbed by the body. Excessive exposure above TLV can give mild pulmonary irritation. Eye contact will result in no specific effects other than general particulate irritation to the eye. Individuals with pre-existing respiratory conditions such as asthma or skin conditions such as dermatitis may be at greater risk for exposure to material.

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:	3.98
Solubility in Water:	0.5%
Odor:	Odorless
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

SECTION XII – Ecological Information

California:	This material does not contain any components listed under California Proposition 65.
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.
Procedure To Be Followed in Case of Leak or Spill:	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. This material passes the RCRA-TCLP test and may be treated as a non-hazardous waste.

SECTION XIV – Transport Information

DOT Classification:	1.4 S
Hazard Class:	Not considered a hazardous material.

SECTION XV – Regulatory Information

SECTION XVI – Other Information

Last Revision:	April 18, 2016
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