



MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Lightning Spray® Silver/Grey		DATE: August 1, 2011	
PRODUCT NUMBER(S): 1-0403 (1004003)			
TRADE NAME: Lightning Spray® Silver/Grey GENERAL USE: Fingerprinting CHEMICAL FAMILY: Mixed Organics / Inorganics PRODUCT DESCRIPTION: Flammable aerosol propellant and powder (silver/gray) with a characteristic odor.			
MANUFACTURED FOR: Safariland, LLC		DATE PREPARED: August 1, 2011	
		SUPERSEDES: September 30, 2009	
ADDRESS (NUMBER, STREET, P.O. BOX) 13386 International Parkway		TELEPHONE NUMBER FOR INFORMATION / Customer Service 800-347-1200	
(CITY, STATE AND ZIP CODE) Jacksonville, FL 32218		COUNTRY USA	
CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER			
		1-800-255-3924	01-813-248-0585
		North America Toll Free	International

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Extremely flammable aerosol. Irritating to skin, eyes, and respiratory system. Vapors may cause drowsiness and dizziness. Keep out of the reach of children. Aluminum powders are considered a flammable solid. **DO NOT USE HALONS OR WATER TO FIGHT ALUMINUM FIRES!!!**

POTENTIAL HEALTH EFFECTS

INHALATION:
Irritation of the mucous membranes, coughing, wheezing, shortness of breath, and dyspnea.

SKIN:
Capable of causing mild irritation, especially with chronic or prolonged contact. May cause dryness or cracking of the skin.

EYES:
Causes moderate irritation - potentially causes both chemical and mechanical irritation, with redness, tearing, and pain/burning.

INGESTION:
Unlikely as product is an aerosol.

CARCINOGENICITY:
 NTP? **No** IARC MONOGRAPHS? **No** OSHA REGULATED? **No**
 CALIFORNIA, Prop.65? **No**

SECTION 3 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Isobutane	NR	75-28-5	200-857-2	F+, Xi	R12, R36/37/38
Isopropanol	NR	67-63-0	200-661-7	F, Xi	R11, R36/37/38
Aluminum	NR	7429-90-5	231-072-3	F	R10, R15

Notes: Hazard symbols and risk phrases based on maximum listed concentration of each hazardous ingredient.

SECTION 4 - FIRST AID MEASURES

INHALATION:
Remove victim to fresh air, administer oxygen and/or artificial respiration if unconscious. Contact a physician immediately.

EYES:
Check for and remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention. Do not use over-the-counter products except under physician directions.

SKIN:
Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

INGESTION:
In the unlikely case of ingestion, **DO NOT INDUCE VOMITING!!!** If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Seek immediate emergency medical attention; transport container with victim to assist with treatment.

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SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS:

Forms explosive mixtures with air even at ambient temperatures. Development of hazardous combustion gases or vapors possible in the event of fire (CO, Carbon Monoxide). Special protective equipment for fire fighting: do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus. **Aluminum powders are considered a flammable solid. DO NOT USE HALONS OR WATER TO FIGHT ALUMINUM FIRES!!!**

EXTINGUISHING MEDIA:

CO2 (Carbon Dioxide), alcohol-resistant foam, powder. **Do not use water or Halons!!!!**

FIRE FIGHTING PROCEDURES:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Forms explosive mixtures with air even at ambient temperatures. Development of hazardous combustion gases or vapors possible in the event of fire (CO, Carbon Monoxide). Use of water may result in liberation of flammable gases.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon Monoxide, Carbon Dioxide, Aluminum Oxides

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Person-related precautionary measures: avoid substance contact. Do not breathe mists or dusts. Wear protective clothing. Keep unprotected persons away. Use only in well ventilated areas.

Procedures for cleaning/absorption: ensure adequate ventilation. Wear PPE as described in Section 8. Wipe up with towel. Treat discarded material as a respiratory hazard. Treat empty aerosol cans as flammable.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Ensure good ventilation / exhaust at the workplace. Aerosol product, do not expose to temperatures >30°C. Do not incinerate containers even when empty. Do not puncture. Do not spray on flame or other ignition sources-No smoking. Store in a cool well-ventilated place. Observe official regulations on storing packaging with pressurized containers.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	TLV/TWA ppm	TWA mg/m ³	PEL ppm	PEL mg/m ³
Isobutane	1000 ppm TWA as C1-C4 aliphatic gases (ACGIH), TWA 800 ppm (1900 mg/m ³) (NIOSH REL), 1000 ppm (2400 mg/m ³) MAK (DFG)							
Isopropanol	200 ppm TWA, 400 ppm STEL (ACGIH), 400 ppm (980 mg/m ³) (OSHA PEL, NIOSH REL), 500 ppm (1225 mg/m ³) (NIOSH STEL), 200 ppm (500 mg/m ³) MAK (DFG)							
Aluminum	10 mg/m ³ TWA (ACGIH) , 15 mg/m ³ TWA(5 mg/m ³ respirable)(OSHA PEL), 10 mg/m ³ TWA (5 mg/m ³ respirable) (NIOSH REL) (b)							

(b) - as dust.

RESPIRATORY PROTECTION:

Respirators for organic vapors and dusts conforming to NIOSH/MSA or European EN-149 standards when organic vapors and dusts are generated by spraying this product in an enclosed area.

PROTECTIVE GLOVES:

Wear chemically resistant gloves - latex, nitrile, or neoprene gloves are acceptable.

EYE PROTECTION:

Wear properly fitted chemical safety glasses with side shields; safety goggles are also acceptable.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Wear a protective rubber or plastic apron, or alternatively, a protective suit, when using this product to prevent contamination of clothing.

WORK / HYGIENIC PRACTICES:

Wash hands and face after working with the substance. Wear Personal Protective Equipment at all times while working with product. Wash hands and face before eating, drinking or smoking. No eating, drinking, or smoking while using product!!!

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR Aerosol powder (silver/gray) with slight odor.	VAPOR PRESSURE NR
VOC NR Volatility Aerosol	SPECIFIC GRAVITY (WATER = 1) NR
BOILING POINT / BOILING RANGE NA- Aerosol.	SOLUBILITY IN WATER Slight Solubility
FLASH POINT NA- Aerosol.	VISCOSITY NR
FLAMMABLE LIMITS LEL: NR UEL: NR	VAPOR DENSITY (AIR = 1) NR
AUTO-IGNITION TEMPERATURE NR	EVAPORATION RATE BUTYL ACETATE = 1) NR

SECTION 10 - STABILITY AND REACTIVITY

STABILITY STABLE X	CONDITIONS TO AVOID: Ignition sources, open flame, contact with incompatible substances.
INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with water, strong oxidizing agents, bases, amines and aldehydes.	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon Monoxide, Carbon Dioxide. Organic vapors, Aluminum oxides	
HAZARDOUS POLYMERIZATION: Will not occur.	CONDITIONS TO AVOID: None related to polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Isobutane	75-28-5	NR	57 pph / 15 Min (Inhalation, Rat)
	200-857-2		
Isopropanol	67-63-0	5000 mg/kg (Oral, Rat)	72,600 mg/m³ (Inhalation, Rat)
	200-661-7		
Aluminum	7429-90-5	NR	NR
	231-072-3		


SECTION 12 - ECOLOGICAL INFORMATION

Slightly hazardous for water do not allow to enter drinking water supplies, other watercourses, sewers systems, groundwater, or soil. No ecological data specific to this blended product is available.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:
Treat as hazardous waste to be disposed of by a licensed waste disposal facility in compliance with all local, state, and federal regulations. **DO NOT INCINERATE THIS PRODUCT! DO NOT ALLOW THE CONTAMINATION OF DRINKING WATER, FOOD, OR FEEDSTUFFS.**

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Aerosols, Flammable DOT HAZARD CLASS / Pack Group: 2.1 REFERENCE: 49 CFR UN / NA IDENTIFICATION: UN 1950 LABEL: Flammable Gas HAZARD SYMBOLS: <div style="text-align: center; margin-top: 10px;">  </div>	IATA HAZARD CLASS / Pack Group: Aerosols, Flammable, n.o.s., 2.1 UN 1950, 75kg passenger, 150kg cargo max. IMDG HAZARD CLASS: Sea class 2, UN 1950, 2.1 RID/ADR Dangerous Goods Code: UN 1950, 2.1 UN TDG Class / Pack Group: 2.1/ Aerosols, Limited Quantities. Hazard Identification Number (HIN): 23
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Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

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SECTION 15 - REGULATORY INFORMATION

TSCA (USA - Toxic Substance Control Act): **Ingredients listed.**
 SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):
 Acute Health: **Yes** Chronic Health: **Yes**
 Fire: **Yes** Sudden Release of Pressure: **Yes**
 Reactive: **No**

313 REPORTABLE INGREDIENTS: **None reportable.**
 CERCLA (USA - Comprehensive Response Compensation and Liability Act): **No RQ's applicable.**
 California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: **No Components Listed.**
 CCPR (Canadian Controlled Products Regulations): **Not listed.**
 CIDL (Canadian Ingredient Disclosure List): **Isopropanol and Aluminum Metal are on the CIDL.**
 CDSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List): **Listed on CDSL.**
 EINECS (European Inventory of Existing Commercial Chemical Substances): **Referenced.**

WGK Water Quality Index: **2**

RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU LABEL	SAFETY PHRASES:
<p>R12 Extremely flammable. R15 Contact with water liberates extremely flammable gases. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R36/37/38 Irritating to eyes, respiratory system and skin. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapors may cause drowsiness and dizziness.</p>	 F+ - Flammable  Xn - Harmful	<p>S2: Keep out of the reach of children. S3/9/14 Keep in a cool, well-ventilated place away from strong oxidizing agents, bases, amines and aldehydes. S16: Keep away from sources of ignition-No smoking. S20/21 When using do not eat, drink or smoke. S23: Do not breathe spray, vapors, or dusts. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eyeface protection. S51 Use only in well-ventilated areas.</p>

SECTION 16 - OTHER INFORMATION

Legend - N/A = Not Applicable N/D = Not Determined N/E = Not Established N/R = Not Reported

HMIS HAZARD RATINGS	HEALTH:	2	
0 = INSIGNIFICANT, 1 = SLIGHT	FLAMMABILITY:	4	
2 = MODERATE, 3 = HIGH	PHYSICAL HAZARD:	0	
4 = EXTREME	PERSONAL PROTECTIVE EQUIPMENT:	I	

REVISION SUMMARY: Revised Issue to E.U. protocols 8/1/2011. Supersedes 9/30/2009 issue. LB/JTV

<p>MSDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com</p>	
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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.