

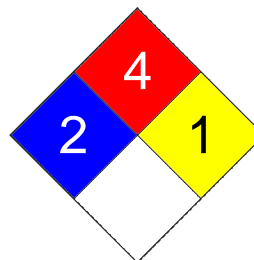
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name Marsh White Spray Stencil Ink
CAS # Mixture
Product use Spray Ink
Manufacturer MSSC, LLC
926 McDonough Lake Road, Unit E
Collinsville, IL 62234 US
Phone: (618) 343-1006
Fax: (618) 343-1016
Emergency Phone: (800) 424-9300 (USA)
Emergency Phone: (703) 527-3887 (International)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 2
Flammability	4
Physical Hazard	1
Personal Protection	B



2. Hazards Identification

Emergency overview DANGER
Extremely flammable. Contents under pressure. Containers may explode when heated. Eye and skin irritant. May cause chronic toxic effects. Contains material which may cause cancer.

Potential short term health effects

Routes of exposure Eye, Skin contact, Skin absorption, Inhalation.

Eyes May cause irritation. Contact with liquid may cause frostbite.

Skin May cause irritation. May be absorbed through the skin. Contact with liquid may cause frostbite.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

Target organs Eyes. Lungs. Respiratory system. Skin.

Chronic effects Fibrosis was observed in rats exposed to 6 mg/m³ of hydrous magnesium silicate (talc) for 113 or 122 weeks. Chronic respiratory disease has been observed in workers exposed to up to 3.0 mg/m³ of airborne talc ore free of asbestos and silica.

Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Solvent naphtha (petroleum), light aliphatic	64742-89-8	7 - 13
Acetone	67-64-1	15 - 40
Butane	106-97-8	10 - 30
Propane	74-98-6	10 - 30
2-Propanol, 1-methoxy-, acetate	108-65-6	1 - 5
Carbonic acid calcium salt (1:1)	471-34-1	1 - 5
Hydrous magnesium silicate	14807-96-6	1 - 5
Titanium oxide	13463-67-7	1 - 5

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists. Clothing frozen to the skin should be thawed before being removed.
Inhalation	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Ingestion	Not a normal route of exposure. Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

Notes to physician

Symptoms may be delayed.

General advice

Do not puncture or incinerate container. Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Flammable aerosol by flame projection test. Containers may explode when heated.
Extinguishing media	
Suitable extinguishing media	Carbon dioxide. Alcohol foam. Water Fog. Dry chemical. Foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Phosgene. Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material.
Storage	Keep out of reach of children. Do not store at temperatures above 49 °C (120.2°F). Keep away from heat, open flames or other sources of ignition. Store in a tightly closed container.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
2-Propanol, 1-methoxy-, acetate	ACGIH-TLV Not established OSHA-PEL Not established
Acetone	ACGIH-TLV TWA: 500 ppm STEL: 750 ppm OSHA-PEL TWA: 1000 ppm
Butane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL Not established
Carbonic acid calcium salt (1:1)	ACGIH-TLV TWA: 10 mg/m3 OSHA-PEL Not established
Hydrous magnesium silicate	ACGIH-TLV TWA: 2 mg/m3 OSHA-PEL Not established
Propane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL TWA: 1000 ppm
Solvent naphtha (petroleum), light aliphatic	ACGIH-TLV Not established OSHA-PEL Not established
Titanium oxide	ACGIH-TLV TWA: 10 mg/m3 OSHA-PEL TWA: 15 mg/m3

Engineering controls

Use only under good ventilation conditions or with respiratory protection.

Personal protective equipment

Eye / face protection

Safety goggles or glasses.

Hand protection

Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection

As required by employer code.

Respiratory protection

Not normally required if good ventilation is maintained and exposure guidelines are not exceeded. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	Aerosol.
Color	White
Form	Spray
Odor	Solvent.
Odor threshold	Not available
Physical state	Gas
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not determined
Evaporation rate	< 1 (Ether = 1)
Flammability limits in air, lower, % by volume	1.8
Flammability limits in air, upper, % by volume	12.8
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Auto-ignition temperature	Not available
Percent volatile	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Aerosol containers are unstable at temperatures above 49°C (120°F).
Incompatible materials	Strong acids, alkalis and oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Phosgene. Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
2-Propanol, 1-methoxy-, acetate	Not available
Acetone	39 mg/l/4h rat
Butane	658 mg/l/4h rat
Carbonic acid calcium salt (1:1)	Not available
Hydrous magnesium silicate	Not available
Propane	658 mg/l/4h rat
Solvent naphtha (petroleum), light aliphatic	1400 mg/l/4h rat
Titanium oxide	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
2-Propanol, 1-methoxy-, acetate	8532 mg/kg rat
Acetone	5800 mg/kg rat; 5340 mg/kg rabbit; 3000 mg/kg mouse; 2857 mg/kg human
Butane	Not available
Carbonic acid calcium salt (1:1)	6450 mg/kg rat
Hydrous magnesium silicate	Not available
Propane	Not available
Solvent naphtha (petroleum), light aliphatic	5000 mg/kg rat
Titanium oxide	24000 mg/kg rat

Effects of acute exposure

Eye	May cause irritation. Contact with liquid may cause frostbite.
Skin	May cause irritation. May be absorbed through the skin. Contact with liquid may cause frostbite.
Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Repeated or prolonged exposure to Hydrous magnesium silicate (Talc) may cause scarring of the lungs with shortness of breath, chronic cough, and heart failure.

Carcinogenicity

Fibrosis was observed in rats exposed to 6 mg/m³ of hydrous magnesium silicate (talc) for 113 or 122 weeks. Chronic respiratory disease has been observed in workers exposed to up to 3.0 mg/m³ of airborne talc ore free of asbestos and silica.

High concentrations of pigment-grade (powdered) and ultrafine titanium dioxide (titanium oxide) dust have caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation.

ACGIH - Threshold Limit Values - Carcinogens

Acetone	67-64-1	A4 - Not Classifiable as a Human Carcinogen
Hydrous magnesium silicate	14807-96-6	A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers); A1 - Confirmed Human Carcinogen (containing asbestos fibers)
Titanium oxide	13463-67-7	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2B (Possibly Carcinogenic to Humans)

Titanium oxide	13463-67-7	Monograph 93 posted, Monograph 47 [1989]
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IARC - Group 3 (Not Classifiable)

Hydrous magnesium silicate	14807-96-6	Monograph 93 [in preparation] (inhaled), Supplement 7 [1987], Monograph 42 [1987]
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Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Reproductive effects Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae Data

Solvent naphtha (petroleum), light aliphatic	64742-89-8	72 Hr EC50 Selenastrum capricornutum: 4700 mg/L
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Ecotoxicity - Freshwater Fish Species Data

2-Propanol, 1-methoxy-, acetate	108-65-6	96 Hr LC50 Pimephales promelas: 161 mg/L [static]
Acetone	67-64-1	96 Hr LC50 Oncorhynchus mykiss: 5540 mg/L [static]; 96 Hr LC50 Pimephales promelas: 6210 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 8300 mg/L [static]
Hydrous magnesium silicate	14807-96-6	96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]

Ecotoxicity - Microtox Data

Acetone	67-64-1	15 Min EC50 Photobacterium phosphoreum: 14500 mg/L
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Ecotoxicity - Water Flea Data

2-Propanol, 1-methoxy-, acetate	108-65-6	48 Hr EC50 Daphnia magna: >500 mg/L
Acetone	67-64-1	48 Hr EC50 water flea: 0.0039 mg/L; 48 Hr EC50 water flea: 12700 mg/L [Static]; 48 Hr EC50 Daphnia magna: 12600 mg/L

Environmental effects	Harmful to aquatic life.
Aquatic toxicity	Not available
Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available
Other adverse effects	Not available

IATA Shipping
Name: Aerosols,
Flammable, Class
2.1 UN1950
IMDG Shipping
Name: Aerosols,
Class 2, UN1950,
EMS no. F-D, S-U

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal. Do not puncture or incinerate container.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods - Consumer Commodity ORM-D (applicable to containers up to 1L)

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods - Consumer Commodity (applicable to containers up to 1L)

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Acetone	67-64-1	1 %
Butane	106-97-8	1 %

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Acetone	67-64-1	5000 Lb final RQ; 2270 kg final RQ
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

2-Propanone: 5000.0000
Benzene, 1,3-dimethyl-: 1000.0000
Benzene, (1-methylethyl)-: 5000.0000
Benzene, ethyl-: 1000.0000
Benzene, 1,2-dimethyl-: 1000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Not available

Safe Drinking Water Act (SDWA) Not available

Drug Enforcement Agency (DEA) Not available

Food and Drug Administration (FDA)

Not available

WHMIS status

Controlled

WHMIS classification

Class A - Compressed Gas, Class B - Division 5 - Flammable Aerosol, Class D - Division 2A, 2B

WHMIS labeling



State regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Acetone	67-64-1	Present
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present (exempt except when inhalable dust is present or can be generated)

U.S. - Louisiana - Reportable Quantity List for Pollutants

Acetone	67-64-1	5000 Lb final RQ; 2270 kg final RQ
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U.S. - Massachusetts - Right To Know List

Acetone	67-64-1	Present
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present (exempt when encapsulated or if particulates are not present and cannot be substantially generated through use of the product)

Propane	74-98-6	Present
Titanium oxide	13463-67-7	Present

U.S. - Minnesota - Hazardous Substance List

Acetone	67-64-1	Present
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present (fibrous, nonasbestiform, and respirable)
Propane	74-98-6	Simple asphyxiant
Titanium oxide	13463-67-7	Present (dust)

U.S. - New Jersey - Right to Know Hazardous Substance List

Acetone	67-64-1	sn 0006
Butane	106-97-8	sn 0273
Hydrous magnesium silicate	14807-96-6	sn 1773
Propane	74-98-6	sn 1594
Titanium oxide	13463-67-7	sn 1861

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Acetone	67-64-1	5000 Lb RQ (air); 1 lb RQ (land/water)
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U.S. - Pennsylvania - RTK (Right to Know) List

Acetone	67-64-1	Environmental hazard
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present
Propane	74-98-6	Present
Titanium oxide	13463-67-7	Present

U.S. - Rhode Island - Hazardous Substance List

Acetone	67-64-1	Toxic; Flammable
Butane	106-97-8	Toxic; Flammable
Hydrous magnesium silicate	14807-96-6	Toxic
Propane	74-98-6	Toxic; Flammable
Titanium oxide	13463-67-7	Toxic

Inventory name

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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