

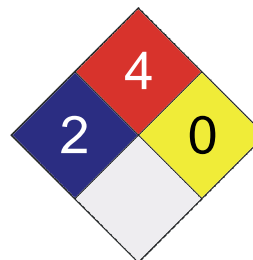
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name Marsh Spray Adhesive
CAS # Mixture
Product use Adhesive
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	0
Personal Protection	B



2. Hazards Identification

Emergency overview DANGER
Extremely flammable. Contents under pressure. Containers may explode when heated.
EYE IRRITANT. Skin irritation possible with prolonged exposure.

Potential short term health effects

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

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

Skin May cause irritation. 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. Skin. Respiratory system.

Chronic effects 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
Butane	106-97-8	7 - 13
Naphtha (petroleum), light alkylate	64741-66-8	7 - 13
Naphtha (petroleum), hydrotreated heavy	64742-48-9	30 - 60
Acetone	67-64-1	15 - 40
Propane	74-98-6	10 - 30

4. First Aid Measures

First aid procedures

Eye contact Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

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	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 by WHMIS/OSHA criteria. Containers may explode when heated.
Extinguishing media	
Suitable extinguishing media	Carbon dioxide. Alcohol foam. Dry chemical. Foam. Water Fog.
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	Phosgene. May include and are not limited to: 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 or walk through spilled material. 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 closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Acetone	ACGIH-TLV TWA: 500 ppm STEL: 750 ppm OSHA-PEL TWA: 1000 ppm
Butane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL Not established
Naphtha (petroleum), hydrotreated heavy	ACGIH-TLV Not established OSHA-PEL Not established
Naphtha (petroleum), light alkylate	ACGIH-TLV Not established OSHA-PEL Not established
Propane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL TWA: 1000 ppm

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 and face before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	Aerosol.
Color	Clear colorless
Form	Spray
Odor	Solvent.
Odor threshold	Not available
Physical state	Liquid
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	-104.44 °C (-156 °F)
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
Solubility (H2O)	Not available
Auto-ignition temperature	Not available
VOC (Weight %)	Not available
Viscosity	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 (120.2°F). Do not mix with other chemicals.
Incompatible materials	Strong acids, alkalies and oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Phosgene.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Acetone	> 16000 mg/m ³ rat
Butane	658 mg/l/4h rat
Naphtha (petroleum), hydrotreated heavy	Not available
Naphtha (petroleum), light alkylate	5.04 mg/l/4h rat
Propane	658 mg/l/4h rat

Component analysis - Oral LD50

Ingredient(s)	LD50
Acetone	5800 mg/kg rat
Butane	Not available
Naphtha (petroleum), hydrotreated heavy	5000 mg/kg rat
Naphtha (petroleum), light alkylate	7000 mg/kg rat
Propane	Not available

Effects of acute exposure

Eye	May cause irritation. Contact with liquid may cause frostbite.
Skin	May cause irritation. 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	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.

ACGIH - Threshold Limit Values - Carcinogens

Acetone	67-64-1	A4 - Not Classifiable as a Human Carcinogen
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Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Reproductive effects 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

Naphtha (petroleum), light alkylate 64741-66-8 72 Hr EC50 Selenastrum capricornutum: 30000 mg/L

Ecotoxicity - Freshwater Fish Species Data

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]

Naphtha (petroleum), hydrotreated heavy 64742-48-9 96 Hr LC50 Pimephales promelas: 2200 mg/L

Ecotoxicity - Microtox Data

Acetone 67-64-1 15 Min EC50 Photobacterium phosphoreum: 14500 mg/L

Ecotoxicity - Water Flea Data

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

Naphtha (petroleum), hydrotreated heavy 64742-48-9 96 Hr LC50 Chaetogammarus marinus: 2.6 mg/L

Naphtha (petroleum), light alkylate 64741-66-8 48 Hr LC50 Mysidopsis bahia: 2 mg/L

Environmental effects	Not available
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

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)

Basic shipping requirements:

Proper shipping name Consumer Commodity, ORM-D (Applicable to containers up to 1L)

IATA Shipping Name: Aerosols, flammable, Class2.1, UN1950

IMDG Shipping Name: Aerosols, Class2, UN1950, EMS no. F-D, S-U

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name 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

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
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 2B

WHMIS labeling



State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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

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

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
Propane	74-98-6	Present

U.S. - Minnesota - Hazardous Substance List

Acetone	67-64-1	Present
Butane	106-97-8	Present
Propane	74-98-6	Simple asphyxiant

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

Acetone	67-64-1	sn 0006
Butane	106-97-8	sn 0273
Propane	74-98-6	sn 1594

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
Propane	74-98-6	Present

U.S. - Rhode Island - Hazardous Substance List

Acetone	67-64-1	Toxic; Flammable
Butane	106-97-8	Toxic; Flammable
Propane	74-98-6	Toxic; Flammable

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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