

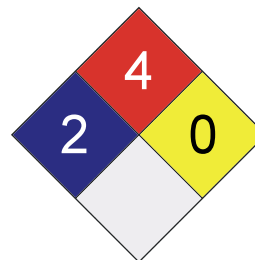
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name Marsh Tan Spray Stencil Ink
CAS # Mixture
Product use Spray Ink
Manufacturer Marsh Shipping Supply Company, 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 AND SKIN IRRITANT.
May cause chronic toxic effects.

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
Heptane (n-)	142-82-5	3 - 7
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
Solvent naphtha (petroleum), light aromatic	64742-95-6	1 - 5
Cyclohexane	110-82-7	0.5 - 1.5

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

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.

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.

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. Never return spills in original containers for re-use.

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. 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 Not established
Butane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL Not established
Cyclohexane	ACGIH-TLV TWA: 100 ppm OSHA-PEL TWA: 300 ppm
Heptane (n-)	ACGIH-TLV TWA: 1635 mg/m ³ STEL: 500 ppm OSHA-PEL TWA: 500 ppm
Propane	ACGIH-TLV TWA: 1000 ppm OSHA-PEL TWA: 1000 ppm
Solvent naphtha (petroleum), light aromatic	ACGIH-TLV TWA: 50 ppm OSHA-PEL Not established

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	Tan
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	-104.4 °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
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. 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
2-Propanol, 1-methoxy-, acetate	Not available
Acetone	> 16000 mg/m3 rat
Butane	658 mg/m3 rat
Cyclohexane	Not available
Heptane (n-)	25000 ppm rat
Propane	Not available
Solvent naphtha (petroleum), light aromatic	> 10.2 Mg/L rat

Component analysis - Oral LD50

Ingredient(s)	LD50
2-Propanol, 1-methoxy-, acetate	8532 mg/kg rat
Acetone	5800 mg/kg rat
Butane	Not available
Cyclohexane	8000 mg/kg rat
Heptane (n-)	> 15000 mg/kg rat
Propane	Not available
Solvent naphtha (petroleum), light aromatic	4700 mg/kg rat

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	Prolonged exposure may cause chronic effects.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.

12. Ecological Information

Ecotoxicity	Components of this product are hazardous to aquatic life. Components of this product have been identified as having potential environmental concerns.
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

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

Department of Transportation (DOT)

Basic shipping requirements:

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

Transportation of Dangerous Goods (TDG)

Basic shipping requirements:

Proper shipping name Consumer Commodity (Applicable to containers up to 1L)

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

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.
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.
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 - 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 labeling



State regulations

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Massachusetts - Right To Know List

Acetone	67-64-1	Present
Butane	106-97-8	Present
Cyclohexane	110-82-7	Present
Heptane (n-)	142-82-5	Present
Propane	74-98-6	Present

Minnesota - Hazardous Substance List

Acetone	67-64-1	Present
Butane	106-97-8	Present
Cyclohexane	110-82-7	Present
Heptane (n-)	142-82-5	Present
Propane	74-98-6	Simple asphyxiant

New Jersey - Right to Know Hazardous Substance List

Acetone	67-64-1	sn 0006
Butane	106-97-8	sn 0273
Cyclohexane	110-82-7	sn 0565
Heptane (n-)	142-82-5	sn 1339
Propane	74-98-6	sn 1594

Pennsylvania - RTK (Right to Know) List

Acetone	67-64-1	Environmental hazard
Butane	106-97-8	Present
Cyclohexane	110-82-7	Environmental hazard
Heptane (n-)	142-82-5	Present
Propane	74-98-6	Present

Inventory name

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
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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