

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number 2870
Product name **Swish Vandalism Remover**
Effective date 13-Sep-2011
Company information Swish Maintenance Limited
Peterborough, ON K9J 8N4 Canada
Company phone General Assistance 630-543-7600
Emergency telephone US 866-836-8855
Emergency telephone outside US 703-527-3887
Version # 06
Supersedes date 02-Aug-2011
Expiry Date 13-Sep-2014
Product use Graffiti remover

2. Hazards Identification

Emergency overview Flammable aerosol. TOXIC. CONTENTS UNDER PRESSURE.
Heat may cause the containers to explode. Yields a flame projection at full valve opening or a flashback at any degree of valve opening. Harmful in contact with eyes. Irritating to skin. Prolonged exposure may cause chronic effects. Possible cancer hazard - may cause cancer based on animal data.

Potential health effects

Routes of exposure Ingestion.

Eyes Contact with eyes may cause irritation.

Skin May cause skin irritation.

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Toxic by inhalation. May cause irritation of respiratory tract.

Ingestion Exposure by ingestion of an aerosol is unlikely. Irritating. May cause nausea, stomach pain and vomiting. Components of the product may be absorbed into the body by ingestion.

Target organs Central nervous system. Eyes. Lungs. Skin.

Chronic effects Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Methylene Chloride	75-09-2	30 - 60
n-Butane	106-97-8	15 - 40
Toluene	108-88-3	10 - 30
Perchloroethylene	127-18-4	7 - 13
Propane	74-98-6	7 - 13
Propylene Oxide	75-56-9	0.1 - 1
Non-hazardous and other components below reportable levels		1 - 5

4. First Aid Measures

First aid procedures

Eye contact If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Call a physician or Poison Control Center immediately.

Skin contact	Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Call a physician or Poison Control Center immediately. Wash clothing separately before reuse.
Inhalation	If symptoms develop move victim to fresh air. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim inhaled the substance.
Ingestion	Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not induce vomiting without advice from poison control center. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS criteria. Heat may cause the containers to explode. Ruptured cylinders may rocket. Vapors may travel considerable distance to a source of ignition and flash back.
Extinguishing media	
Suitable extinguishing media	Foam. Dry chemical. Carbon dioxide (CO2).
Protection of firefighters	
Protective equipment and precautions for firefighters	Containers should be cooled with water to prevent vapor pressure build up. Some of these materials, if spilled, may evaporate leaving a flammable residue. Do not direct water at source of leak or safety devices as icing may occur. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Unusual fire & explosion hazards	Flammable by WHMIS criteria. Heat may cause the containers to explode. Ruptured cylinders may rocket. Vapors may travel considerable distance to a source of ignition and flash back.

6. Accidental Release Measures

Methods for containment	Stop leak if you can do so without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). If possible, turn leaking containers so that gas escapes rather than liquid. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Clean up in accordance with all applicable regulations. Should not be released into the environment. Ventilate the area. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

7. Handling and Storage

Handling	Pressurized container: Do not pierce or burn, even after use. When using do not smoke. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not use if spray button is missing or defective. Do not re-use empty containers. Do not breathe mist or vapor. Do not get this material on clothing. Avoid prolonged exposure.
Storage	Keep locked up. Contents under pressure. Do not puncture, incinerate or crush. Keep away from heat and sources of ignition. Avoid exposure to long periods of sunlight. Keep at temperature not exceeding 49 °C. Store in a well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Level 1 Aerosol (NFPA 30B)

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Methylene Chloride	75-09-2	50 ppm	Not established	Not established
n-Butane	106-97-8	1000 ppm	Not established	Not established
Toluene	108-88-3	20 ppm	Not established	Not established
Perchloroethylene	127-18-4	25 ppm	100 ppm	Not established
Propane	74-98-6	1000 ppm	Not established	Not established
Propylene Oxide	75-56-9	2 ppm	Not established	Not established

Personal protective equipment

Eye / face protection	Wear chemical goggles.
Skin protection	Wear appropriate chemical resistant clothing. Chemical resistant gloves.
Respiratory protection	Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

9. Physical & Chemical Properties

Appearance	Compressed liquefied gas.
Boiling point	102.2 °F (38.9 °C) estimated
Color	Pale yellow
Evaporation rate	Not available
Flammability (HOC)	18.61 kJ/g estimated
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Flash back	Yes
Flash point	-156 °F (-104.4 °C) Propellant
Form	Compressed gas. Aerosol.
Freezing point	Not available
Odor	Solvent.
Odor threshold	Not available
pH	Not applicable
Physical state	Liquid.
Pressure	40 - 55 psig @ 70F
Solubility (H2O)	Not miscible.
Specific gravity	0.8934 estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition. Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Aerosol containers are unstable at temperatures above 49°C.
Hazardous decomposition products	Hydrogen chloride. Irritants. Toxic gas.

11. Toxicological Information

Acute effects	Acute LC50: 82 mg/l/4h estimated, Rat, Inhalation Acute LD50: 55930 mg/kg estimated, Rat, Dermal
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Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

Methylene Chloride	75-09-2	Oral LD50 Rat >2000 mg/kg; Inhalation LC50 Rat 76000 mg/m ³ 4 h
n-Butane	106-97-8	Inhalation LC50 Rat 658 mg/L 4 h
Perchloroethylene	127-18-4	Inhalation LC50 Rat 4000 ppm 4 h; Oral LD50 Rat 2629 mg/kg; Dermal LD50 Mouse 2800 mg/kg
Propane	74-98-6	Inhalation LC50 Rat 658 mg/L 4 h
Propylene Oxide	75-56-9	Oral LD50 Rat 520 mg/kg
Toluene	108-88-3	Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50 Rat 636 mg/kg; Dermal LD50 Rabbit 8390 mg/kg; Dermal LD50 Rat 12124 mg/kg

Sensitization

Not expected to be hazardous by WHMIS criteria.

Carcinogenicity

Hazardous by WHMIS criteria. Cancer hazard. Risk of cancer cannot be excluded with prolonged exposure.

ACGIH - Threshold Limit Values - Carcinogens

Methylene Chloride	75-09-2	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Perchloroethylene	127-18-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Propylene Oxide	75-56-9	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Toluene	108-88-3	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2A (Probably Carcinogenic to Humans)

Perchloroethylene	127-18-4	Monograph 63 [1995]; Supplement 7 [1987]
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IARC - Group 2B (Possibly Carcinogenic to Humans)

Methylene Chloride	75-09-2	Monograph 71 [1999]; Supplement 7 [1987]
Propylene Oxide	75-56-9	Monograph 60 [1994]; Supplement 7 [1987]

Mutagenicity

Not expected to be hazardous by WHMIS criteria.

Reproductive effects

Not expected to be hazardous by WHMIS criteria.

Teratogenicity

Not expected to be hazardous by WHMIS criteria.

Chronic toxicity

Hazardous by WHMIS criteria.

12. Ecological Information

Ecotoxicity

LC50 32.2 mg/L, Fish, 96.00 Hours,
EC50 30.14 mg/L, Daphnia, 48.00 Hours,
IC50 633 mg/L, Algae, 72.00 Hours,
Not established. Components of this product are hazardous to aquatic life.

Environmental effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. Disposal Considerations

Disposal instructions

Contents under pressure. Dispose of this material and its container to hazardous or special waste collection point. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001.

14. Transport Information

Canadian Transportation of Dangerous Goods (TDG) Requirements

Proper shipping name	AEROSOLS, flammable, containing substances in Class 6.1, packing group III
Hazard class	2.1
Subsidiary hazard class	6.1
UN number	UN1950
Marine pollutant	•
Special provisions	80 SOR/2002-306



15. Regulatory Information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Canada - WHMIS - Ingredient Disclosure List

Methylene Chloride	75-09-2	0.1 %
n-Butane	106-97-8	1 %
Perchloroethylene	127-18-4	1 %
Propylene Oxide	75-56-9	1 %
Toluene	108-88-3	1 %

WHMIS status

Controlled

WHMIS classification

A - Compressed Gas
B5 - Flammable/Combustible
D1B - Immediate/Serious-TOXIC
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

MSDS sections updated

Product and Company Identification: Product Review
Hazards Identification: Emergency overview
Hazards Identification: Eyes
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Hazards Identification: Chronic effects
Hazards Identification: Main symptoms

Prepared by

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