



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number SW880
Material name GEL VANDAL MARK REMOVER
Revision date 03-11-2014
Company information SPRAYWAY INC.
1005 SOUTH WESTGATE DR
ADDISON, IL 60101 United States
Company phone
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 02
Supersedes date 03-11-2014
Expiry Date 11-Mar-2017
Product use Vandalism Remover

2. Hazards Identification

Emergency overview Flammable aerosol. CONTENTS UNDER PRESSURE.
Pressurized container may explode when exposed to heat or flame. Yields a flame projection at full valve opening or a flashback at any degree of valve opening. Will be easily ignited by heat, spark or flames. May be fatal if inhaled. May be fatal if inhaled or swallowed.
Very toxic. Corrosive. Causes skin and eye burns. May cause sensitization by inhalation.

Potential health effects

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

Eyes Causes chemical burns. Corrosive to the eyes and may cause severe damage including blindness.

Skin Causes chemical burns. May be harmful if absorbed through skin.

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Can cause severe respiratory irritation. Prolonged inhalation may be harmful. May cause sensitization by inhalation.

Ingestion May be fatal if swallowed. Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion. Ingestion causes burns of the upper digestive and respiratory tracts.

Target organs Central nervous system. Kidneys. Liver. Lungs. Respiratory system.
2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans.

Chronic effects May be harmful if absorbed through skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms Contact with this material will cause burns to the skin, eyes and mucous membranes. Symptoms are prostration, gasping, pallor, and uncoordinated movements. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Potential environmental effects Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Toluene	108-88-3	15 - 40
Acetone	67-64-1	7 - 13
Butane	106-97-8	7 - 13

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Components	CAS #	Percent
Propane	74-98-6	7 - 13
Ethylene Glycol Monobutyl Ether	111-76-2	3 - 7
Diethylene Glycol Monobutyl Ether	112-34-5	1 - 5
Oleic Acid	112-80-1	1 - 5
Other components below reportable levels		30 - 60

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. 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. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to physician

Symptoms may be delayed.

General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

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 Powder. Water. Foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Specific hazards arising from the chemical Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Do not direct water at source of leak or safety devices as icing may occur. Use water spray to cool unopened containers. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.

Specific methods

Cool containers exposed to flames with water until well after the fire is out.

Explosion data

Sensitivity to static discharge Not available.

Sensitivity to mechanical impact Not available.

6. Accidental Release Measures

Personal precautions	Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Pay attention to flashback. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
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. 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. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of low areas. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Ventilate the area. Should not be released into the environment. Stop the flow of material, if this is without risk. Isolate area until gas has dispersed. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Do not use in areas without adequate ventilation. Wash thoroughly after handling.
Storage	Keep locked up. Contents under pressure. The pressure in sealed containers can increase under the influence of heat. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS). Level 2 Aerosol.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH Biological Exposure Indices

Components	Type	Value
Acetone (CAS 67-64-1)	BEI	50 mg/l
2-Butoxyethanol (CAS 111-76-2)	BEI	200 mg/g
Toluene (CAS 108-88-3)	BEI	0.3 mg/g 0.03 mg/l 0.02 mg/l

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1800 mg/m ³ 750 ppm
	TWA	1200 mg/m ³ 500 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1000 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	97 mg/m3
		20 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm
Toluene (CAS 108-88-3)	TWA	188 mg/m3
		50 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Butane (CAS 106-97-8)	STEL	750 ppm
	TWA	600 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Butane (CAS 106-97-8)	TWA	800 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2380 mg/m3
	TWA	1000 ppm
		1190 mg/m3
		500 ppm
Butane (CAS 106-97-8)	TWA	1900 mg/m3
		800 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	97 mg/m3
		20 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm
Toluene (CAS 108-88-3)	TWA	188 mg/m3
		50 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3
		1000 ppm
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3
		50 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3
		1000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

Exposure guidelines

Canada - Alberta OELs: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection Do not get in eyes. Face-shield.

Skin protection Do not get this material in contact with skin. Wear chemical protective equipment that is specifically recommended by the manufacturer.

Respiratory protection If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

9. Physical & Chemical Properties

Appearance	Viscous. Liquid.
Boiling point	157.73 °F (69.85 °C) estimated
Color	Tan.
Flash point	-156.00 °F (-104.44 °C) Propellant estimated
Form	Aerosol.
Melting point/Freezing point	Not available.
Odor	Solvent.
Odor threshold	Not available.
pH	12.5 - 13.4 estimated
Physical state	Gas.
Vapor pressure	60 - 75 psig @70F estimated
Solubility (water)	Not available.
Specific gravity	0.827 estimated
Flammability limits in air, upper, % by volume	8.5 % estimated
Flammability limits in air, lower, % by volume	2.1 % estimated
Other data	
Heat of combustion	20.69 kJ/g estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition.
Conditions to avoid	Heat, flames and sparks. Aerosol containers are unstable at temperatures above 49°C. Avoid temperatures exceeding the flash point. This product may react with oxidizing agents. Do not mix with other chemicals.
Hazardous decomposition products	Not available.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
Gel Vandal Mark Remover (CAS Mixture)		
Acute		
<i>Oral</i>		
LD50	Rat	10269.6582 mg/kg, estimated

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Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	20000 mg/kg 20 ml/kg
<i>Inhalation</i>		
LC50	Rat	76 mg/l, 4 Hours 50.1 mg/l, 8 Hours
<i>Oral</i>		
LD50	Mouse	3000 mg/kg
	Rabbit	5340 mg/kg
	Rat	5800 mg/kg
<i>Other</i>		
LD50	Mouse	1297 mg/kg
	Rat	5500 mg/kg
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2700 mg/kg
<i>Oral</i>		
LD50	Guinea pig	2000 mg/kg
	Mouse	2400 mg/kg
	Rabbit	2200 mg/kg
	Rat	4500 mg/kg
<i>Other</i>		
LD50	Mouse	850 mg/kg
	Rat	500 mg/kg
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	400 mg/kg
<i>Inhalation</i>		
LC50	Mouse	700 mg/l, 7 Hours
	Rat	450 mg/l, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
<i>Other</i>		
LD50	Mouse	1130 mg/kg
	Rabbit	280 mg/kg

Components	Species	Test Results
	Rat	340 mg/kg
Oleic Acid (CAS 112-80-1)		
Acute		
<i>Dermal</i>		
LD50	Guinea pig	> 3000 mg/kg
<i>Oral</i>		
LD50	Rat	74 g/kg
<i>Other</i>		
LD50	Mouse	230 mg/kg
	Rat	2.4 mg/kg
Propane (CAS 74-98-6)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 1442.847 mg/l, 15 Minutes 658 mg/l/4h
Toluene (CAS 108-88-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	12124 mg/kg 14.1 ml/kg
<i>Inhalation</i>		
LC50	Mouse	5320 mg/l, 8 Hours 400 mg/l, 24 Hours
	Rat	26700 mg/l, If <1L: Consumer Commodity Hours 12200 mg/l, 2 Hours 8000 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	2.6 g/kg
<i>Other</i>		
LD50	Mouse	59 mg/kg
	Rat	1332 mg/kg

* Estimates for product may be based on additional component data not shown.

Acute effects Causes burns.

Local effects Very toxic by inhalation. May produce corrosive solutions on contact with water.

Chronic effects Prolonged inhalation may be harmful. May be harmful if absorbed through skin.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Carcinogenicity

ACGIH Carcinogens

Acetone (CAS 67-64-1)

A4 Not classifiable as a human carcinogen.

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)

A3 Confirmed animal carcinogen with unknown relevance to humans.

Toluene (CAS 108-88-3)

A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)

3 Not classifiable as to carcinogenicity to humans.

Toluene (CAS 108-88-3)

3 Not classifiable as to carcinogenicity to humans.

12. Ecological Information

Ecotoxicological data

Product		Species	Test Results
Gel Vandal Mark Remover (CAS Mixture)			
Algae	IC50	Algae	1800.3899 mg/L, 72 Hours, estimated
Crustacea	EC50	Daphnia	31.8987 mg/l, 48 hours, estimated
Fish	LC50	Fish	101.5783 mg/L, 96 Hours, estimated
Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	21.6 - 23.9 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)			
Crustacea	EC50	Daphnia	2850 mg/L, 48 Hours
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	1300 mg/l, 96 hours
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)			
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
Oleic Acid (CAS 112-80-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	205 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Algae	IC50	Algae	433.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	7.645 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Components of this product are hazardous to aquatic life.
Environmental effects	Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.
Partition coefficient	
Acetone	-0.24
Butane	2.89
Diethylene Glycol Monobutyl Ether	0.56
Ethylene Glycol Monobutyl Ether	0.83
Propane	2.36
Toluene	2.73

13. Disposal Considerations

Disposal instructions	Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

TDG

UN number	UN1950
UN proper shipping name	AEROSOLS, flammable, containing substances in Class 8, packing group III
Hazard class	2.1
Subsidiary hazard class	8
Marine pollutant	D
Special provisions	80

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, containing substances in Class 8, Packing Group III
Transport hazard class(es)	2.1
Subsidiary class(es)	8
ERG code	10C
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, flammable, corrosive
Transport hazard class(es)	2.1
Subsidiary class(es)	8
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
Packaging Exceptions	LTD QTY

IATA; IMDG; TDG



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.

WHMIS status Controlled

WHMIS classification
A - Compressed Gas
B5 - Flammable Aerosols
D1A - Immediate/Serious-VERY TOXIC
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC
E - Corrosive

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)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
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	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Disclaimer

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.