



SAFETY DATA SHEET

1. Identification

Product identifier Citrus Blast Graffiti Remover

Other means of identification None

Recommended use Cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Graffiti Solutions Canada

Address 552 St Thomas Rang
Embrun, ON K0A 1W0
Canada

Telephone Phone: 613-838-5842
Phone: 866-906-9273

e-mail sales@graffitisolutionscanada.com

Emergency phone number CANUTEC: 613-996-6666

Supplier See above.

2. Hazard identification

Physical hazards Flammable liquids Category 3

Health hazards Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Sensitization, skin Category 1

Germ cell mutagenicity Category 1

Environmental hazards Not classified.

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapour. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause genetic defects.

Precautionary statement

Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response

In case of fire: Use appropriate media to extinguish.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Specific treatment (see information on this label).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-Pentanone, 4-hydroxy-4-methyl-		123-42-2	40
Aryl alcohol		HMIRA# 8506	30
d-Limonene		5989-27-5	18
Monoethanolamine		141-43-5	2

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

This product has been granted a trade secret exemption.
The decision date associated with this trade exemption is August 9, 2013.

4. First-aid measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see information on this label). Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Take off all contaminated clothing immediately. 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. Wash contaminated clothing before reuse. Keep away from sources of ignition. No smoking. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media	Carbon dioxide. Alcohol foam. Water spray. Dry chemical. Carbon dioxide. Polymer foam.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Firefighters should wear a self-contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide (hydrocyanic acid).
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapour.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.
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Methods and materials for containment and cleaning up

Stop leak if you can do so without risk. Use water spray to reduce vapours or divert vapour cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.

Never return spills to original containers for re-use.

Environmental precautions

Do not discharge into lakes, streams, ponds or public waters.

Advise authorities if product has penetrated drains, sewers or water pipes.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. May cause sensitisation by skin contact. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. All equipment used when handling the product must be grounded. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapour. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Observe good industrial hygiene practices. Use good industrial hygiene practices in handling this material. When transferring large amounts of the product, metal containers should be grounded; and avoid or eliminate ignition sources. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in a closed container away from incompatible materials. Keep in an area equipped with sprinklers. Keep out of reach of children. Do not store at temperatures above 120°F (49°C).

8. Exposure controls/Personal protection

Occupational exposure limits**US. ACGIH Threshold Limit Values**

Components	Type	Value
2-Pantanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	TWA	50 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

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

Components	Type	Value
2-Pantanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	TWA	238 mg/m ³
		50 ppm
Monoethanolamine (CAS 141-43-5)	STEL	15 mg/m ³
		6 ppm
	TWA	7.5 mg/m ³
		3 ppm

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

Components	Type	Value
2-Pantanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	TWA	50 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
2-Pentanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	TWA	50 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

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

Components	Type	Value
2-Pentanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	STEL	360 mg/m3
	TWA	75 ppm
	TWA	240 mg/m3
		50 ppm
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

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

Components	Type	Value
2-Pentanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	TWA	238 mg/m3
		50 ppm
Monoethanolamine (CAS 141-43-5)	STEL	15 mg/m3
	TWA	6 ppm
		7.5 mg/m3
		3 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Aryl alcohol has an AIHA WEEL exposure limit of 10ppm (8hr TWA).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear chemical goggles.

Skin protection**Hand protection**

Rubber gloves. Confirm with a reputable supplier first.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Not applicable.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. When using do not eat or drink.

9. Physical and chemical properties

Appearance	Yellow
Physical state	Liquid.
Form	Liquid
Colour	Yellow
Odour	Lemon
Odour threshold	Not available.
pH	10.1

Melting point/freezing point	-61 °C (-77.8 °F)
Initial boiling point and boiling range	64 °C (147.2 °F)
Flash point	28.0 °C (82.4 °F) TCC
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available.
Solubility(ies)	
Solubility (Water)	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Flash point class	Flammable IC
Oxidizing properties	Not oxidising.
Specific gravity	Not available

10. Stability and reactivity

Reactivity	Reacts violently with acids. This product may react with strong oxidizing agents.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. This product may react with oxidizing agents. Do not mix with other chemicals.
Incompatible materials	Oxidising agents. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness). Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns. Monoethanolamine is corrosive to rabbit skin. Harmful if absorbed through skin. d-Limonene has caused skin sensitization in animals.
Eye contact	Causes serious eye damage. Monoethanolamine is corrosive to the eyes.
Ingestion	Causes digestive tract burns. Acute oral exposure of monoethanolamine has caused necrosis of the gastric and intestinal mucosa. Acute oral exposure to aryl alcohol affects the nervous system (excitability, lethargy, incoordination, hindlimb paralysis, convulsions, prostration and dyspnea).
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	May cause an allergic skin reaction.		
Components	Species	Test results	
2-Pentanone, 4-hydroxy-4-methyl- (CAS 123-42-2)			
Acute			
<i>Dermal</i>			
LD50	Rabbit	> 1875 mg/kg	
		13500 mg/kg	
		14.5 ml/kg	
<i>Inhalation</i>			
LC50	Not available		
<i>Oral</i>			
LD50	Rat	3002 mg/kg	
Aryl alcohol (CAS HMIRA# 8506)			
Acute			
<i>Dermal</i>			
LD50	Rabbit	2000 mg/kg	
<i>Inhalation</i>			
LC50	Rat	8.8 mg/l/4h	
<i>Oral</i>			
LD50	Mouse	1580 mg/kg	
	Rabbit	1940 mg/kg	
	Rat	1230 mg/kg	
d-Limonene (CAS 5989-27-5)			
Acute			
<i>Dermal</i>			
LD50	Rabbit	> 5000 mg/kg	
<i>Inhalation</i>			
LC50	Not available		
<i>Oral</i>			
LD50	Mouse	5600 mg/kg	
	Rat	4400 mg/kg	
Monoethanolamine (CAS 141-43-5)			
Acute			
<i>Dermal</i>			
LD50	Rabbit	1018 mg/kg	
		1000 mg/kg	
<i>Inhalation</i>			
LC50	Mouse	1210 mg/m3, 4 Hours	
		484 ppm, 4 Hours	
		1.2 mg/L, 4 Hours	
<i>Oral</i>			
LD50	Guinea pig	620 mg/kg	
	Mouse	1475 mg/kg	
		700 mg/kg	
	Rat	1970 mg/kg	
		1720 mg/kg	
Skin corrosion/irritation	Causes severe skin burns and eye damage.		
Exposure minutes	Not available.		
Erythema value	Not available.		
Oedema value	Not available.		
Serious eye damage/eye irritation	Causes serious eye damage.		
Corneal opacity value	Not available.		

Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitisation	
Canada - Alberta OELs: Irritant	
2-Pentanone, 4-hydroxy-4-methyl- (CAS 123-42-2)	Irritant
Monoethanolamine (CAS 141-43-5)	Irritant
Respiratory sensitisation	Not a respiratory sensitizer.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	May cause genetic defects. Aryl alcohol has caused an increase in chromosomal aberrations in Chinese hamster ovary cells. Diacetone alcohol has caused in vitro mutagenic effects in rat liver cells.
Carcinogenicity	See below.
IARC Monographs. Overall Evaluation of Carcinogenicity	
d-Limonene (CAS 5989-27-5)	Volume 73 - 3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	May be harmful if absorbed through skin. Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
Further information	This product may be harmful if it is absorbed through the skin. Based on published data, if contact is repeated and prolonged, monoethanolamine may cause liver and kidney damage. These effects have not been observed in humans.

12. Ecological information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns. See below		
Ecotoxicological data			
Components	Species	Test results	
2-Pentanone, 4-hydroxy-4-methyl- (CAS 123-42-2)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	420 mg/L, 96 hours
Aryl alcohol (CAS HMIRA# 8506)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	10 mg/L, 96 hours
d-Limonene (CAS 5989-27-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/L, 96 hours
Monoethanolamine (CAS 141-43-5)			
Algae	IC50	Algae	15 mg/L, 72 Hours
Crustacea	EC50	Daphnia	65 mg/L, 48 Hours
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	114 - 196 mg/L, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential			
Mobility in soil	No data available.		

Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
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. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

General	Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.
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Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN2924
Proper shipping name	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Technical name	d-Limonene
Hazard class	3
Subsidiary hazard class	8
Packing group	III
Special provisions	16

TDG



15. Regulatory information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
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Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

d-Limonene (CAS 5989-27-5) 1 TONNES

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS status	Controlled
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Inventory Status

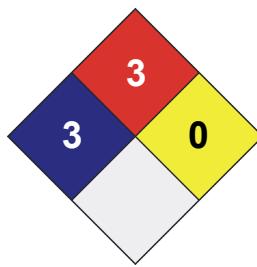
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

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

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	*	3
FLAMMABILITY		3
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X



Issue date	26-July-2016
Revision date	26-July-2016
Version #	01
Other information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.
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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