



# MATERIAL SAFETY DATA SHEET

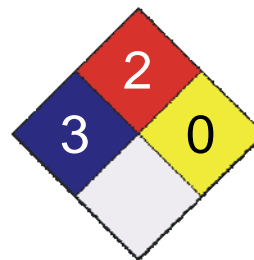
## 1. Product and Company Identification

**Product Name** Rhino Blast Graffiti Remover  
**CAS #** Mixture  
**Product use** Cleaner  
**Manufacturer** Graffiti Solutions Canada  
 7785 Franktown Road  
 Richmond, ON K0A 2Z0 CA  
 Phone: 613-838-5842  
 Phone: 866-906-9273  
 Fax: 613-838-5843  
 613-996-6666

### CANUTEC

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 3
Flammability	2
Physical Hazard	0
Personal Protection	B



## 2. Hazards Identification

**Emergency overview** DANGER -- CORROSIVE  
 Combustible liquid. Keep away from heat and flame.  
 Contains a potential mutagen.

**Potential short term health effects**

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

**Eyes** May cause chemical burns. May cause blindness.

**Skin** May cause chemical burns. Harmful contact may not cause immediate pain.  
 This product may be harmful if it is absorbed through the skin.

**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion** Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.  
 Acute oral exposure to aryl alcohol affects the nervous system (excitability, lethargy, incoordination, hindlimb paralysis, convulsions, prostration and dyspnea).

**Target organs** Eyes. Respiratory system. Liver. 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.

**Chronic effects** This product may be harmful if it is absorbed through the skin.  
 Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.

**Signs and symptoms** The product causes burns of eyes, skin and mucous membranes.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Potassium hydroxide	1310-58-3	5 - 10
Aryl alcohol	HMIRC#7218	40 - 70
Monoethanolamine	141-43-5	1 - 5
Ethanol	64-17-5	0.1 - 1

**Composition comments** This product has been granted a trade secret exemption.  
 The granted date associated with this trade secret exemption is March 3, 2009.  
 All concentrations are expressed as %wt/wt.

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## 4. First Aid Measures

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### First aid procedures

<b>Eye contact</b>	Immediately flush the contaminated eye(s) with lukewarm gently flowing water for at least 60 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye (or face).
<b>Skin contact</b>	Under running water, remove contaminated clothing, shoes and leather goods. Continuously flush the contaminated area with lukewarm gently flowing water for at least 60 minutes.
<b>Inhalation</b>	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
<b>Ingestion</b>	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

### General advice

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.

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## 5. Fire Fighting Measures

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<b>Flammable properties</b>	Combustible by WHMIS/OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Carbon dioxide. Alcohol foam. Water spray. Water Fog. Dry chemical powder.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	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.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift.
<b>Methods for cleaning up</b>	Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water.

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## 7. Handling and Storage

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<b>Handling</b>	DANGER CORROSIVE TO EYES AND SKIN. COMBUSTIBLE  Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
<b>Storage</b>	Keep out of reach of children. Do not store at temperatures above 120°F (49°C). Store in a closed container away from incompatible materials.

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## 8. Exposure Controls / Personal Protection

### Exposure limits

Ingredient(s)	Exposure Limits
Aryl alcohol	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Ethanol	<b>ACGIH-TLV</b> TWA: 1000 ppm STEL: 1000 ppm <b>OSHA-PEL</b> TWA: 1000 ppm
Monoethanolamine	<b>ACGIH-TLV</b> TWA: 3 ppm STEL: 6 ppm <b>OSHA-PEL</b> TWA: 3 ppm
Potassium hydroxide	<b>ACGIH-TLV</b> Ceiling: 2 mg/m3 <b>OSHA-PEL</b> Not established

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

<b>Engineering controls</b>	General ventilation normally adequate.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear chemical goggles.
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

## 9. Physical and Chemical Properties

<b>Appearance</b>	White
<b>Color</b>	White.
<b>Form</b>	gel
<b>Odor</b>	faint aromatic
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Liquid
<b>pH</b>	11.6
<b>Melting point</b>	Not available
<b>Freezing point</b>	-11.20 °F (-24 °C)
<b>Boiling point</b>	392.00 °F (200 °C)
<b>Pour point</b>	Not available
<b>Evaporation rate</b>	Not available
<b>Flash point</b>	197.60 °F (92 °C) Tag Closed Cup
<b>Auto-ignition temperature</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	Not available

Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Solubility (H2O)	Not available
VOC (Weight %)	Not available
Viscosity	Viscous
Percent volatile	Not available

## 10. Stability and Reactivity

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals. Reacts violently with acids. This product may react with oxidizing agents. Avoid high temperatures.
<b>Incompatible materials</b>	Acids. Oxidizing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

<b>Acute effects</b>	Monoethanolamine has a dermal LD50 (rabbit) of 1.0 mL/Kg (1018 mg/kg; specific gravity at 20°C = 1.018 g/mL)
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### Component analysis - LC50

Ingredient(s)	LC50
Aryl alcohol	8.8 mg/l/4h rat
Ethanol	31623 ppm rat
Monoethanolamine	1210 mg/m3 mouse
Potassium hydroxide	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Aryl alcohol	1230 mg/kg rat
Ethanol	3450 mg/kg mouse; 7060 mg/kg rat
Monoethanolamine	1720 mg/kg rat; 700 mg/kg mouse
Potassium hydroxide	214 mg/kg rat

### Effects of acute exposure

<b>Eye</b>	May cause chemical burns. May cause blindness.
<b>Skin</b>	May cause chemical burns. Harmful contact may not cause immediate pain. This product may be harmful if it is absorbed through the skin.
<b>Inhalation</b>	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
<b>Ingestion</b>	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach. Acute oral exposure to aryl alcohol affects the nervous system (excitability, lethargy, incoordination, hindlimb paralysis, convulsions, prostration and dyspnea).

### Sensitization

Aryl alcohol has caused skin sensitization in workers and animals.

### Chronic effects

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.

### Carcinogenicity

See below.

#### ACGIH - Threshold Limit Values - Carcinogens

Ethanol	64-17-5	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
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#### IARC - Group 1 (Carcinogenic to Humans)

Ethanol	64-17-5	Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [in preparation] (in alcoholic beverages)
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### Mutagenicity

Aryl alcohol has caused an increase in chromosomal aberrations in Chinese hamster ovary cells.  
Mutagenic effects were observed in somatic and reproductive cells of live animals (rats and mice) exposed to high oral doses of ethanol.

<b>Reproductive effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	Animal studies demonstrate that ingestion of ethanol can cause embryotoxicity, teratogenicity and fetotoxicity in the presence of maternal toxicity.
<b>Synergistic Materials</b>	Not available

## 12. Ecological Information

<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns.	
<b>Ecotoxicity - Freshwater Algae - Acute Toxicity Data</b>		
Aryl alcohol	Trade secret	3 Hr EC50 Anabaena variabilis: 35 mg/L
Monoethanolamine	141-43-5	72 Hr EC50 Desmodesmus subspicatus: 15 mg/L
<b>Ecotoxicity - Freshwater Fish - Acute Toxicity Data</b>		
Aryl alcohol	Trade secret	96 Hr LC50 Pimephales promelas: 460 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 10 mg/L [static]
Ethanol	64-17-5	96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]
Monoethanolamine	141-43-5	96 Hr LC50 Pimephales promelas: 227 mg/L [flow-through]; 96 Hr LC50 Brachydanio rerio: 3684 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 300-1000 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 114-196 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: >200 mg/L [flow-through]
Potassium hydroxide	1310-58-3	96 Hr LC50 Gambusia affinis: 80 mg/L [static]
<b>Ecotoxicity - Water Flea - Acute Toxicity Data</b>		
Aryl alcohol	Trade secret	48 Hr EC50 water flea: 23 mg/L
Ethanol	64-17-5	48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]
Monoethanolamine	141-43-5	48 Hr EC50 Daphnia magna: 65 mg/L
<b>Environmental effects</b>	Not available	
<b>Aquatic toxicity</b>	Not available	
<b>Persistence / degradability</b>	Not available	
<b>Bioaccumulation / accumulation</b>	Not available	
<b>Partition coefficient</b>	Not available	
<b>Mobility in environmental media</b>	Not available	
<b>Chemical fate information</b>	Not available	
<b>Other adverse effects</b>	Not available	

## 13. Disposal Considerations

<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

### U.S. Department of Transportation (DOT)

**Basic shipping requirements:**

<b>Proper shipping name</b>	Corrosive liquids, n.o.s. (POTASSIUM HYDROXIDE RQ = 13280 lbs)
<b>Hazard class</b>	8
<b>UN number</b>	UN1760
<b>Packing group</b>	II
<b>Additional information:</b>	
<b>Special provisions</b>	B2, IB2, T11, TP2, TP27
<b>Packaging exceptions</b>	154
<b>ERG number</b>	154



## Transportation of Dangerous Goods (TDG - Canada)

### Basic shipping requirements:

<b>Proper shipping name</b>	CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE)
<b>Hazard class</b>	8
<b>UN number</b>	UN1760
<b>Packing group</b>	II
<b>Additional information:</b>	
<b>Special provisions</b>	16



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## 15. Regulatory Information

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### 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

Aryl alcohol	Trade secret	1 %
Ethanol	64-17-5	0.1 %
Monoethanolamine	141-43-5	1 %
Potassium hydroxide	1310-58-3	1 %

### US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ
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#### U.S. - CWA (Clean Water Act) - Hazardous Substances

Potassium hydroxide	1310-58-3	Present
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### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** Yes

### CERCLA (Superfund) reportable quantity

Potassium hydroxide: 1000.0000  
Sodium dodecylbenzene sulfonate: 1000.0000

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - No  
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

**WHMIS status** Controlled

**WHMIS classification** Class B - Division 3 - Combustible Liquid, Class D - Division 2A, Class E - Corrosive Material

### WHMIS labeling



**State regulations**

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

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

Ethanol	64-17-5	Present (refers to solutions greater than or equal to 25% which are not beverage alcohols)
Monoethanolamine	141-43-5	Present
Potassium hydroxide	1310-58-3	Present

**U.S. - California - Proposition 65 - Developmental Toxicity**

Ethanol	64-17-5	developmental toxicity, initial date 10/1/87 (when in alcoholic beverages)
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**U.S. - Illinois - Toxic Air Contaminants**

Monoethanolamine	141-43-5	Present
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**U.S. - Louisiana - Reportable Quantity List for Pollutants**

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ
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**U.S. - Massachusetts - Right To Know List**

Aryl alcohol	Trade secret	Present
Ethanol	64-17-5	Teratogen
Monoethanolamine	141-43-5	Present
Potassium hydroxide	1310-58-3	Present

**U.S. - Minnesota - Hazardous Substance List**

Aryl alcohol	Trade secret	Present
Ethanol	64-17-5	Present
Monoethanolamine	141-43-5	Present
Potassium hydroxide	1310-58-3	Present

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

Ethanol	64-17-5	sn 0844
Monoethanolamine	141-43-5	sn 0835
Potassium hydroxide	1310-58-3	sn 1571

**U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances**

Potassium hydroxide	1310-58-3	1000 Lb RQ (air); 100 lb RQ (land/water)
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**U.S. - Pennsylvania - RTK (Right to Know) List**

Aryl alcohol	Trade secret	Present
Ethanol	64-17-5	Present
Monoethanolamine	141-43-5	Present
Potassium hydroxide	1310-58-3	Environmental hazard

**U.S. - Rhode Island - Hazardous Substance List**

Ethanol	64-17-5	Toxic; Flammable
Monoethanolamine	141-43-5	Toxic; Flammable
Potassium hydroxide	1310-58-3	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)

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## 16. Other Information

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**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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15-Jan-2014

**Prepared by**

Dell Tech Laboratories Ltd. (519) 858-5021

**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.