

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Marsh Red Spray Stencil Ink  
**CAS #** Mixture  
**Product use** Spray Ink  
**Manufacturer** MSSC, LLC  
926 McDonough Lake Road, Unit E  
Collinsville, IL 62234 US  
Phone: (618) 343-1006  
Fax: (618) 343-1016  
Emergency Phone: Infotrac: USA 1 800 535 5053  
Emergency Phone: International 352-323-3500 Call Collect

## 2. Hazards Identification

**Emergency overview** DANGER  
Extremely Flammable Aerosol.  
Contents under pressure. Containers may explode when heated.  
CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION.  
May cause chronic toxic effects.

**Potential short term health effects**

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

**Eyes** Causes irritation.

**Skin** May cause irritation. This product may be harmful if it is absorbed through the skin.

**ACGIH - Threshold Limit Values - Skin Notations**

N-Hexane 110-54-3 Skin - potential significant contribution to overall exposure by the cutaneous route

**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. Respiratory system. Skin.

**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.

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

**Potential environmental effects** See section 12.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Butane	106-97-8	7 - 13
Acetone	67-64-1	30 - 40
Propane	74-98-6	20 - 30
2-Methylpentane	107-83-5	1 - 5
2-Propanol, 1-methoxy-, acetate	108-65-6	1 - 5
Hydrous magnesium silicate	14807-96-6	1 - 5
Limestone	1317-65-3	1 - 5
N-Hexane	110-54-3	1 - 5
Pentane, 3-methyl-	96-14-0	1 - 5
Solvent naphtha (petroleum), light aromatic	64742-95-6	1 - 5

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## 4. First Aid Measures

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### First aid procedures

<b>Eye contact</b>	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.
<b>Skin contact</b>	Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.
<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>	Not a normal route of exposure. Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

### Notes to physician

Symptoms may be delayed.

### General advice

Do not puncture or incinerate container. 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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**Flammable properties** Flammable by WHMIS/OSHA criteria. Containers may explode when heated.

### Extinguishing media

**Suitable extinguishing media** Carbon dioxide. Foam. Dry chemical. 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. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

**Protective equipment for firefighters** Firefighters should wear full protective clothing including self contained breathing apparatus.

**Hazardous combustion products** May include and are not limited to: Oxides of carbon. Oxides of sulfur.

### Explosion data

**Sensitivity to mechanical impact** Not available

**Sensitivity to static discharge** Not available

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## 6. Accidental Release Measures

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### 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.

### Environmental precautions

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

### 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.

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## 7. Handling and Storage

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### Handling

Use good industrial hygiene practices in handling this material.  
Pressurized container: Do not pierce or burn, even after use.  
Avoid contact with eyes.  
Avoid contact with skin and clothing.  
Use only with adequate ventilation.  
Avoid breathing vapors or mists of this product.  
"Empty" containers retain product residue (liquid or vapor) and can be dangerous.  
Wash thoroughly after handling.

### Storage

Keep out of reach of children.  
Keep away from heat, open flames or other sources of ignition.  
Protect from sunlight.  
Do not store at temperatures above 49 °C (120.2°F).

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## 8. Exposure Controls / Personal Protection

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### Exposure limits

Ingredient(s)	Exposure Limits
2-Methylpentane	<b>ACGIH-TLV</b> TWA: 500 ppm STEL: 1000 ppm <b>OSHA-PEL</b> Not established
2-Propanol, 1-methoxy-, acetate	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
Acetone	<b>ACGIH-TLV</b> TWA: 500 ppm STEL: 750 ppm <b>OSHA-PEL</b> TWA: 1000 ppm
Butane	<b>ACGIH-TLV</b> TWA: 1000 ppm <b>OSHA-PEL</b> Not established
Hydrous magnesium silicate	<b>ACGIH-TLV</b> TWA: 2 mg/m <sup>3</sup> <b>OSHA-PEL</b> Not established
Limestone	<b>ACGIH-TLV</b> TWA: 5 mg/m <sup>3</sup> <b>OSHA-PEL</b> TWA: 15 mg/m <sup>3</sup>
N-Hexane	<b>ACGIH-TLV</b> TWA: 50 ppm STEL: 1000 ppm <b>OSHA-PEL</b> TWA: 500 ppm
Pentane, 3-methyl-	<b>ACGIH-TLV</b> TWA: 500 ppm <b>OSHA-PEL</b> Not established
Propane	<b>ACGIH-TLV</b> TWA: 1000 ppm <b>OSHA-PEL</b> TWA: 1000 ppm
Solvent naphtha (petroleum), light aromatic	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established

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### Engineering controls

Use only under good ventilation conditions or with respiratory protection.

## Personal protective equipment

<b>Eye / face protection</b>	Safety goggles or glasses. Wear safety glasses with side shields.
<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>	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.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Aerosol.
<b>Color</b>	Red
<b>Form</b>	Liquid
<b>Odor</b>	Acetone
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Liquid
<b>pH</b>	Not available
<b>Melting point</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	-44 - 410 °F (-42.22 - 210.00 °C)
<b>Pour point</b>	Not available
<b>Evaporation rate</b>	> 1 (BuAc=1)
<b>Flash point</b>	-156 °F (-104.44 °C) Pensky-Martens Closed Cup
<b>Auto-ignition temperature</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	1
<b>Flammability limits in air, upper, % by volume</b>	12.8
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Heavier than air
<b>Specific gravity</b>	0.7314
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H2O)</b>	Partial
<b>Viscosity</b>	Not available
<b>Percent volatile</b>	Not available

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## 10. Stability and Reactivity

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<b>Reactivity</b>	Aerosol containers are unstable at temperatures above 49°C (120.2°F).
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Strong acids, alkalies and oxidizing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of sulfur.

# 11. Toxicological Information

## Component analysis - LC50

Ingredient(s)	LC50
2-Methylpentane	Not available
2-Propanol, 1-methoxy-, acetate	Not available
Acetone	44000 Mg/m3/4H mouse
Butane	658 mg/l/4h rat
Hydrous magnesium silicate	Not available
Limestone	Not available
N-Hexane	38500 mg/l/4h rat
Pentane, 3-methyl-	Not available
Propane	658 mg/l/4h rat
Solvent naphtha (petroleum), light aromatic	5.2 mg/l/4h rat

## Component analysis - Oral LD50

Ingredient(s)	LD50
2-Methylpentane	Not available
2-Propanol, 1-methoxy-, acetate	8532 mg/kg rat
Acetone	5800 mg/kg rat; 5340 mg/kg rabbit; 3000 mg/kg mouse; 2857 mg/kg human
Butane	Not available
Hydrous magnesium silicate	Not available
Limestone	6450 mg/kg rat
N-Hexane	28710 mg/kg rat
Pentane, 3-methyl-	Not available
Propane	Not available
Solvent naphtha (petroleum), light aromatic	4700 mg/kg rat

## Effects of acute exposure

**Eye** Causes irritation.  
**Skin** May cause irritation. This product may be harmful if it is absorbed through the skin.

### ACGIH - Threshold Limit Values - Skin Notations

N-Hexane 110-54-3 Skin - potential significant contribution to overall exposure by the cutaneous route

**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** Fibrosis was observed in rats exposed to 6 mg/m3 of hydrous magnesium silicate (talc) for 113 or 122 weeks. Chronic respiratory disease has been observed in workers exposed to up to 3.0 mg/m3 of airborne talc ore free of asbestos and silica. Peripheral nerve damage has been observed following occupational exposure to hexane.

**Carcinogenicity** Non-hazardous by WHMIS/OSHA criteria.

### ACGIH - Threshold Limit Values - Carcinogens

Acetone 67-64-1 A4 - Not Classifiable as a Human Carcinogen  
 Hydrous magnesium silicate 14807-96-6 A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers)

### IARC - Group 3 (Not Classifiable)

Hydrous magnesium silicate 14807-96-6 Monograph 93 [2010] (inhaled); Supplement 7 [1987]; Monograph 42 [1987]

**Mutagenicity** Non-hazardous by WHMIS/OSHA criteria.

**Reproductive effects** Non-hazardous by WHMIS/OSHA criteria.

**Teratogenicity** Non-hazardous by WHMIS/OSHA criteria.

## 12. Ecological Information

**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

**Ecotoxicity - Freshwater Fish - Acute Toxicity Data**

2-Propanol, 1-methoxy-, acetate	108-65-6	96 Hr LC50 Pimephales promelas: 161 mg/L [static]
Acetone	67-64-1	96 Hr LC50 Oncorhynchus mykiss: 4.74 - 6.33 mL/L; 96 Hr LC50 Pimephales promelas: 6210 - 8120 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 8300 mg/L
Hydrous magnesium silicate	14807-96-6	96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]
N-Hexane	110-54-3	96 Hr LC50 Pimephales promelas: 2.1-2.98 mg/L [flow-through]
Solvent naphtha (petroleum), light aromatic	64742-95-6	96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L

**Ecotoxicity - Water Flea - Acute Toxicity Data**

2-Propanol, 1-methoxy-, acetate	108-65-6	48 Hr EC50 Daphnia magna: >500 mg/L
Acetone	67-64-1	48 Hr EC50 Daphnia magna: 10294 - 17704 mg/L [Static]; 48 Hr EC50 Daphnia magna: 12600 - 12700 mg/L
N-Hexane	110-54-3	24 Hr EC50 Daphnia magna: >1000 mg/L
Solvent naphtha (petroleum), light aromatic	64742-95-6	48 Hr EC50 Daphnia magna: 6.14 mg/L

<b>Persistence / degradability</b>	Not available
<b>Bioaccumulation / accumulation</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Chemical fate information</b>	Not available
<b>Other adverse effects</b>	Not available

## 13. Disposal Considerations

<b>Disposal instructions</b>	Review federal, state/provincial, and local government requirements prior to disposal. Do not puncture or incinerate container.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

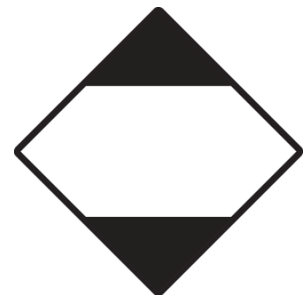
**U.S. Department of Transportation (DOT)**

**Basic shipping requirements:**

<b>Proper shipping name</b>	Aerosols
<b>Hazard class</b>	Limited Quantity
<b>UN number</b>	UN1950

**Additional information:**

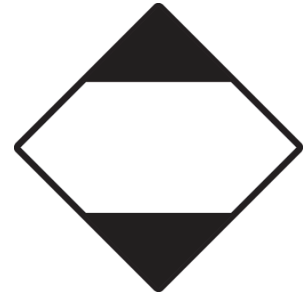
<b>Special provisions</b>	N82
<b>ERG number</b>	115



## Transportation of Dangerous Goods (TDG - Canada)

### Basic shipping requirements:

Proper shipping name           AEROSOLS, flammable  
Hazard class                    Limited Quantity  
UN number                       UN1950



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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 - CEPA - High Priority Chemicals as Identified by DSL Categorization

Butane	106-97-8	Batch 4, published November 17, 2007
N-Hexane	110-54-3	Batch 4, published November 17, 2007

### Canada - WHMIS - Ingredient Disclosure List

2-Methylpentane	107-83-5	1 %
Acetone	67-64-1	1 %
Butane	106-97-8	1 %
N-Hexane	110-54-3	1 %

**WHMIS status**                               Controlled

**WHMIS classification**                   Class A - Compressed Gas, Class B - Division 5 - Flammable Aerosol, Class D - Division 2A, 2B

### WHMIS labeling



### Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous    Yes  
chemical



**US Federal regulations**

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

**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

N-Hexane 110-54-3 Present

**U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances**

Butane 106-97-8 10000 lb threshold quantity

Propane 74-98-6 10000 lb threshold quantity

**U.S. - CAA (Clean Air Act) - HON Rule - Organic HAPs**

N-Hexane 110-54-3 Present

**U.S. - CAA (Clean Air Act) - HON Rule - SOCM Chemicals**

Acetone 67-64-1 Group I

N-Hexane 110-54-3 Group V

**U.S. - CAA (Clean Air Act) - Reactivity Factors for VOCs in Aerosol Coatings**

2-Methylpentane 107-83-5 1.80 G Ozone/g VOC Reactivity Factor

2-Propanol, 1-methoxy-, acetate 108-65-6 1.71 G Ozone/g VOC Reactivity Factor

Acetone 67-64-1 0.43 G Ozone/g VOC Reactivity Factor

Butane 106-97-8 1.33 G Ozone/g VOC Reactivity Factor

N-Hexane 110-54-3 1.45 G Ozone/g VOC Reactivity Factor

Propane 74-98-6 0.56 G Ozone/g VOC Reactivity Factor

**U.S. - CAA (Clean Air Act) - SNAP Program Listing of Substitutes for ODSs**

Acetone 67-64-1 Acceptable substitute for: 2

Butane 106-97-8 Acceptable substitute for: 6

Propane 74-98-6 Acceptable substitute for: 6, 7

**U.S. - CAA (Clean Air Act) - VOCs with Negligible Photochemical Reactivity**

Acetone 67-64-1 Present

**U.S. - CAA (Clean Air Act) - Volatile Organic Compounds (VOCs) in SOCM**

Acetone 67-64-1 Present

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

Acetone 67-64-1 5000 Lb final RQ; 2270 kg final RQ

N-Hexane 110-54-3 5000 Lb final RQ; 2270 kg final RQ

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

N-Hexane 110-54-3 1.0 % de minimis concentration

**CERCLA (Superfund) reportable quantity**

Acetone: 5000.0000

Hexane: 5000.0000

Cyclohexane: 1000.0000

Toluene: 1000.0000

Benzene, ethyl-: 1000.0000

Benzene, 1,3-dimethyl-: 1000.0000

Benzene, 1,4-dimethyl-: 100.0000

Benzene, 1,2-dimethyl-: 1000.0000

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

**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - Yes  
 Fire Hazard - Yes  
 Pressure Hazard - Yes  
 Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Clean Water Act (CWA)**  
 Hazardous substance  
 Priority pollutant  
 Toxic pollutant

**State regulations**

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

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

Acetone	67-64-1	Present
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present (exempt except when inhalable dust is present or can be generated by use)

**U.S. - Illinois - Toxic Air Contaminants**

N-Hexane	110-54-3	Present
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**U.S. - Louisiana - Reportable Quantity List for Pollutants**

Acetone	67-64-1	5000 Lb final RQ; 2270 kg final RQ
N-Hexane	110-54-3	5000 Lb final RQ; 2270 kg final RQ

**U.S. - Massachusetts - Right To Know List**

2-Methylpentane	107-83-5	Present
Acetone	67-64-1	Present
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present (exempt when encapsulated or if particulates are not present and cannot be substantially generated through use of the product)
Limestone	1317-65-3	Present
N-Hexane	110-54-3	Present
Pentane, 3-methyl-	96-14-0	Present
Propane	74-98-6	Present

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

2-Methylpentane	107-83-5	Present (Hexane isomer)
Acetone	67-64-1	Present
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present (fibrous, nonasbestiform, dust and fume)
Limestone	1317-65-3	Present (dust)
N-Hexane	110-54-3	Present
Propane	74-98-6	Simple asphyxiant

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

2-Methylpentane	107-83-5	sn 1285
Acetone	67-64-1	sn 0006
Butane	106-97-8	sn 0273
Hydrous magnesium silicate	14807-96-6	sn 1773
Limestone	1317-65-3	sn 4001
N-Hexane	110-54-3	sn 1340
Propane	74-98-6	sn 1594

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

Acetone	67-64-1	5000 Lb RQ (air); 1 lb RQ (land/water)
N-Hexane	110-54-3	1 Lb RQ (air); 1 lb RQ (land/water)

**U.S. - North Carolina - Control of Toxic Air Pollutants**

N-Hexane	110-54-3	1.1 mg/m3 (chronic toxicants)
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**U.S. - Pennsylvania - RTK (Right to Know) List**

2-Methylpentane	107-83-5	Present
Acetone	67-64-1	Environmental hazard
Butane	106-97-8	Present
Hydrous magnesium silicate	14807-96-6	Present
Limestone	1317-65-3	Present
N-Hexane	110-54-3	Present
Pentane, 3-methyl-	96-14-0	Present
Propane	74-98-6	Present

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

Acetone	67-64-1	Toxic; Flammable
Butane	106-97-8	Toxic; Flammable
Hydrous magnesium silicate	14807-96-6	Toxic (powder or fibrous)
Limestone	1317-65-3	Toxic
N-Hexane	110-54-3	Toxic; Flammable
Propane	74-98-6	Toxic; Flammable

**Inventory name**

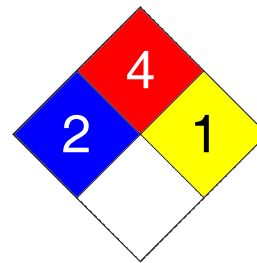
<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

## 16. Other Information

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

Health	* 2
Flammability	4
Physical Hazard	1
Personal Protection	X



**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.

**Issue date**

22-Apr-2013

**Effective date**

15-Feb-2013

**Expiry date**

15-Feb-2016

**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.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.