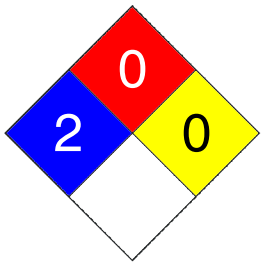
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**Surge Heavy Duty Traffic Lane Cleaner Concentrate Liquid**
CAS #	Mixture
Product use	Carpet cleaner
Manufacturer	Sapphire Scientific 2604 Liberator Prescott, AZ 86301 US Phone: 1-800-932-3030 Emergency: 1-800-535-5053

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

Health	/	2
Flammability		0
Physical Hazard		0
Personal Protection		B



2. Hazards Identification

Emergency overview	WARNING EYE AND SKIN IRRITANT.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes irritation.
Skin	Causes irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Eyes. 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.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Tetrapotassium pyrophosphate	7320-34-5	5 - 10
Diethylene glycol monobutyl ether	112-34-5	3 - 7

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	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	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.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Carbon dioxide. Foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
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.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

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.
Methods for containment	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. 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.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Diethylene glycol monobutyl ether	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Tetrapotassium pyrophosphate	**ACGIH-TLV** Not established **OSHA-PEL** Not established

Engineering controls	Use only under good ventilation conditions or with respiratory protection.
Personal protective equipment	
Eye / face protection	Wear safety glasses with side shields.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations	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.

9. Physical and Chemical Properties

Appearance	Transparent
Color	Blue
Form	Liquid
Odor	Mild linen
Odor threshold	Not available
Physical state	Liquid
pH	10.5
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	None
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Solubility (H2O)	Miscible
Auto-ignition temperature	Not available
Percent volatile	Not available

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	**LC50**
Diethylene glycol monobutyl ether	Not available
Tetrapotassium pyrophosphate	Not available

Component analysis - Oral LD50

Ingredient(s)	**LD50**
Diethylene glycol monobutyl ether	2000 mg/kg guinea pig; 3384 mg/kg rat; 2200 mg/kg rabbit
Tetrapotassium pyrophosphate	4000 mg/kg rat

Effects of acute exposure

Eye	Causes irritation.
Skin	Causes irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.
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 Algae Data

Diethylene glycol monobutyl ether	112-34-5	96 Hr EC50 Scenedesmus subspicatus: >100 mg/L

Ecotoxicity - Freshwater Fish Species Data

Diethylene glycol monobutyl ether	112-34-5	96 Hr LC50 Lepomis macrochirus: 1300 mg/L [static]
Tetrapotassium pyrophosphate	7320-34-5	96 Hr LC50 Oncorhynchus mykiss: >100 mg/L

Ecotoxicity - Water Flea Data

Diethylene glycol monobutyl ether	112-34-5	24 Hr EC50 water flea: 2850 mg/L; 48 Hr EC50 Daphnia magna: >100 mg/L
Tetrapotassium pyrophosphate	7320-34-5	48 Hr EC50 water flea: >100 mg/L

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

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory Information

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

Diethylene glycol monobutyl ether	112-34-5	1 %

US Federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

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

Diethylene glycol monobutyl ether	112-34-5	1 Lb statutory RQ (no final RQ is being assigned to the generic or broad class. Includes mono- and di- ethers of ethylene glycol, diethylene glycol and triethylene glycol R-(OCH2CH2)n-OR" where n = 1, 2 or 3, R = alkyl or aryl groups, R" = R h or groups which when removed yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from glycol category); 0.454 k

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

Diethylene glycol monobutyl ether	112-34-5	1.0 Percent de minimis concentration (applies to R-(OCH2CH2)n-OR' ethers, where n = 1,2, or 3, R=alkyl C7 or less or R = phenyl or alkyl subst. phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230)

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes

CERCLA (Superfund) reportable quantity

Oxirane: 10.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No 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 D - Division 2B

WHMIS labeling

State regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

U.S. - Illinois - Toxic Air Contaminants

Diethylene glycol monobutyl ether	112-34-5	Present

U.S. - Louisiana - Reportable Quantity List for Pollutants

Diethylene glycol monobutyl ether	112-34-5	100 Lb RQ

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

Diethylene glycol monobutyl ether	112-34-5	sn 2265

U.S. - Pennsylvania - RTK (Right to Know) List

Diethylene glycol monobutyl ether	112-34-5	environmental hazard

Inventory name

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

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

16. Other Information

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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