3M Canada Company 1840 Oxford Street East, Post Office Box 5757 London, Ontario N6A 4T1

Medical Emergency Telephone: (519) 451-2500, Ext. 2222

Transportation Emergency Telephone (CANUTEC): (613) 996-6666

Material Safety Data Sheet

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Prepared by: Corporate Regulatory Services, 3M Canada Company Telephone: (800) 364-3577, Fax: (800) 603-7758, Web Site: www.3M.ca

1 Chemical Product and Company Identification

Tradename:

3M CITRUS BASE CLEANER (AEROSOL)

Product ID:

62-4615-1730-2 62-4615-4930-5 62-4615-4935-4

Intended Use of Product:

Cleaner;

Division:

INDUSTRIAL ADHESIVES AND TAPES

2 Hazards Identification

Critical Hazards:

Aerosol container contains flammable gas under pressure.

Extremely flammable liquid and vapour.

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Moderate Skin Irritation: Signs/symptoms can include localized

redness, swelling, itching, and dryness.

May be absorbed following inhalation and cause target organ effects.

See Sections 7 and 11 for further information.

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3 Composition/Information on Ingredients

Ingredient Name

CAS Number Percentage

```
D-LIMONENE
                                      5989-27-5
                                                            10 - 20
                                      74-98-6
PROPANE (AS PROPELLANT)
NONIONIC SURFACTANT MIX
                                      Trade Secret
NOTE:
  Nonionic Sufactant Mix is a Trade Secret material which is not
  controlled according to WHMIS criteria.
  Each percentage is expressed as the ratio of the weight of the
  ingredient to the weight of the controlled product.
4 First Aid Measures
Instructions for Eye Contact:
  Flush eyes with large amounts of water for at least 20 minutes or
  until chemical is removed. If signs/symptoms persist, get medical
  attention.
Instructions for Skin Contact:
  Remove contaminated clothing and shoes. Immediately flush skin with
  large amounts of water for at least 20 minutes or until chemical is
  removed. Get medical attention. Wash contaminated clothing and
  clean shoes before reuse.
Instructions for Inhalation:
  Remove person to fresh air. Get immediate medical attention.
Instructions for Ingestion:
  Get medical attention. Do not induce vomiting unless instructed to
  do so by medical personnel.
Special Instructions:
  Exposure may increase myocardial irritability. Do not administer
  sympathomimetic drugs unless absolutely necessary.
______
5 Fire Fighting Measures
______
Flash point:
                                      -45.6 C
Lower Explosive Limit (%):
Upper Explosive Limit (%):
                                     Not applicable
                                    No data available.
Autoignition temperature:
                                     Not Available
Suitable Extinguishing Media:
  Ordinary combustible material. Use fire extinguishers with class A
  extinguishing agents (e.g., water, foam).
Exposure Hazards during Fire:
  Vapours may travel long distances along the ground or floor to an
  ignition source and flash back.
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Combustion Products from Fire:
  Aldehydes - During Combustion;
  Hydrocarbons - During Combustion;
  Carbon monoxide - During Combustion;
  Carbon dioxide - During Combustion;
  Ketones - During Combustion;
Unusual Fire and Explosion Hazards
  None known.
Fire Fighting Procedures:
  Wear full protective equipment (Bunker Gear) and a self-contained
  breathing apparatus (SCBA).
NFPA: Health
                                       2
NFPA: Fire
NFPA: Reactivity
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NFPA: Unusual Reaction Hazard

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Special Instructions:

Aerosol container contains flammable material under pressure.

6 Accidental Release Measures

Personal Precautions:

Place leaking containers in a well-ventilated area, preferrably in an exhaust hood, if available, or outdoors. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

Environmental Procedures

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Methods for cleaning up

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Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Seal the container.

Spill Response:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill.

7 Handling and Storage

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Storage Requirements:
   No data available.
 Incompatible Materials:
   Store away from heat;
   Store out of direct sunlight.
   Store away from acids;
   Store away from oxidizing agents.
 Ventilation:
   Keep container in well-ventilated area.
 Fire Prevention:
  Aerosol container contains flammable gas under pressure. Extremely
   flammable liquid and vapour. No smoking while handling this
 Explosion Prevention:
  Keep away from heat, sparks, open flame, pilot lights and other
   sources of ignition.
 Use Instructions:
   For industrial or professional use only. Avoid contact with
   oxidizing agents.
3M CITRUS BASE CLEANER (AEROSOL)
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8 Exposure Controls/Personal Protection
Personal Protection
______
Eye Protection:
  Avoid eye contact with vapours, mists, or spray.
   The following should be worn alone or in combination, as
   appropriate, to prevent eye contact:
   Safety glasses with side shields
 Hand Protection:
   Wear appropriate gloves when handling this material.
   The following glove material(s) are recommended:
  nitrile rubber;
   polyvinyl alcohol;
 Skin Protection:
  Avoid skin contact.
   Select and use gloves and/or protective clothing to prevent skin
   contact based on the results of an exposure assessment. Consult
  with your glove and/or protective clothing manufacturer for
  selection of appropriate compatible materials.
 Respiratory Protection:
   Select one of the following approved respirators based on airborne
   concentration of contaminants and in accordance with regulations:
   Half facepiece or fullface air-purifying respirator with organic
   vapor cartridges.
 Ingestion (Prevention):
   Do not eat, drink or smoke when using this product. Wash exposed
   areas thoroughly with soap and water.
 Recommended Ventilation:
   Provide appropriate local exhaust ventilation on open containers.
   Use with appropriate local exhaust ventilation. Use in an enclosed
  process area is recommended. Do not use in a confined area or areas
  with little or no air movement. Do not remain in area where
   available oxygen may be reduced. Use general dilution ventilation
   and/or local exhaust ventilation to control airborne exposures to
   below Occupational Exposure Limits and/or control mist, vapour, or
   spray. If ventilation is not adequate, use respiratory protection
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equipment.
Ingredient Exposure Data
 D-LIMONENE (5989-27-5)
                                     4400 mg/kg
   LD50 (rat, oral)
   LC50 (rat, inhalation/4 hours)
                                    No data available.
   Exposure Limits
    AIHA: TWA 30ppm
 PROPANE (AS PROPELLANT) (74-98-6)
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   Specific Ingredient Data
    No data available.
   LD50 (rat, oral)
                                    No data available.
   LC50 (rat, inhalation/4 hours) No data available.
   Exposure Limits
     ACGIH: TWA 1000 ppm
 NONIONIC SURFACTANT MIX (Trade Secret)
   LD50 (rat, oral)
                                    No data available.
   LC50 (rat, inhalation/4 hours) No data available.
   Exposure Limits
     No data available.
9 Physical and Chemical Properties
______
Physical form, Color, Odour:
                                     Gas; Aerosol Clear;
                                    pale yellow; sweet odour;
Odour Threshold:
                                     No data available.
                                    Not applicable
: Hq
                                  No data available.
Not Available
Boiling point/boiling range:
Melting point/melting range:
Vapour pressure:
                                     \square 28 mmHg at 20 C Composite
                                    Vapour Pressure Calculated
                                     Slight < 10 %
Water Solubility:
                                  Not Available
Partition coefficient (K \circ /w):
Specific gravity:
                                     □ 0.784 Water=1
                                    Not applicable
Vapour density:
Volatile organic compounds:
                                    Approximately 91 % EPA24T
                                     (low solids less exempts)
                                     6.18 lb/gal EPA24T (low
                                     solids less exempts)
Evaporation rate:
                                     Not applicable
                                     Not applicable
Viscosity:
                                     Approximately 91 % by weight
Percent Volatile:
10 Stability and Reactivity
______
Conditions to Avoid:
  Heat;
  Store out of direct sunlight.
Materials to Avoid:
  Store away from acids;
  Strong oxidizing agents;
Hazardous Decomposition:
  Aldehydes - During Combustion;
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Hydrocarbons - During Combustion; Carbon monoxide - During Combustion; Carbon dioxide - During Combustion; Ketones - During Combustion;

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3M CITRUS BASE CLEANER (AEROSOL)
______
Stability and Reactivity:
  Stable. Hazardous polymerization will not occur.
______
11 Toxicological Information
_____
Effects from Eye Contact:
  Moderate Eye Irritation: Signs/symptoms may include redness,
  swelling, pain, tearing, and blurred or hazy vision.
Effects from Skin Contact:
  Moderate Skin Irritation: Signs/symptoms can include localized
  redness, swelling, itching, and dryness.
Effects from Inhalation:
  Respiratory Tract Irritation: Signs/symptoms may include cough,
  sneezing, nasal discharge, headache, hoarseness, and nose and
  throat pain.
  Single exposure, above recommended guidelines, may cause:
  Cardiac Sensitization: Signs/symptoms may include irregular
  heartbeat (arrhythmia), faintness, chest pain, and may be fatal.
  May be absorbed following inhalation and cause target organ
  effects.
Effects from Ingestion:
  Gastrointestinal Irritation: Signs/symptoms may include abdominal
  pain, stomach upset, nausea, vomiting and diarrhea.
 Sensitization Information:
  Single exposure, above recommended guidelines, may cause:
  Cardiac Sensitization: Signs/symptoms may include irregular
  heartbeat (arrhythmia), faintness, chest pain, and may be fatal.
Carcinogenicity:
  No data available.
Mutagenicity:
  No data available.
Reproductive Effects:
  No data available.
Component Based Information:
  No data available.
Product Based Information:
  No data available.
Other Effects & Information:
  Central Nervous System (CNS) Depression: Signs/symptoms may include
  headache, dizziness, drowsiness, incoordination, nausea, slowed
  reaction time, slurred speech, giddiness, and unconsciousness.
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12 Ecological Information

Environmental Data:

Ecotoxicity Data:

Not determined.

Ecofate Data:

13 Disposal Considerations

Product as Sold:

Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility. The facility should be equipped to handle gaseous waste. Dispose of empty product containers in a sanitary landfill.

Product Packaging:

No data available.

Special Instructions:

Since regulations vary, consult applicable regulations or authorities before disposal.

14 Transport Information

Transportation of Dangerous Goods

TDG Classification: Consumer Commodity Special Information:: Contact 3M for more information. These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for Canadian ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

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15 Regulatory Information

WHMIS Classification:

A, B5, D2B

NOTE:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Product Certifications:

The product on this MSDS, or all its components, is included on the following countries' chemical inventories, as noted:

AICS - Australian Inventory of Chemical Substances

DSL - Domestic Substances List (Canada)

EINECS - European Inventory of Existing Commercial Chemical

Substances

TSCA - Toxic Substances Control Act (USA)

CICS - Chinese Inventory of Chemical Substances

KECI - Korean Existing Chemicals Inventory

MITI - Ministry of International Trade and Industry (JAPAN)

PICCS - Philippines Inventory of Commercial Chemical Substances

16 Other Information

Reason for Reissue:

The following Sections and topics have been updated or revised:

Section 3 - Hazards Identification - Critical Hazards;

Section 4 - First Aid Measures;

Section 6 - Accidental Release Measures;

Section 7 - Handling and Storage;

Section 8 - Exposure Controls/Personal Protection;

Section 11 - Toxicological Information;

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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