

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier3M CITRUS BASE CLEANER (AEROSOL)

 Product Identification Numbers

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

1.2. Recommended use and restrictions on use

Intended Use Industrial use

Specific Use aerosol cleaner

Restrictions on use Not applicable

1.3. Supplier's details

| Company: | 3M Canada Company | |
|------------|--|---------|
| Division: | Industrial Adhesives and Tapes Division | |
| Address: | 1840 Oxford Street East, Post Office Box 5757, London, Ontario | N6A 4T1 |
| Telephone: | (800) 364-3577 | |
| Website: | www.3M.ca | |

1.4. Emergency telephone number

Medical Emergency Telephone: (519) 451-2500, Ext. 2222; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable Aerosol: Category 1. Gas Under Pressure: Liquefied gas. Specific Target Organ Toxicity (single exposure): Category 1.

2.2. Label elements

Signal word Danger



Pictograms



Hazard statements

Extremely flammable aerosol. Contains gas under pressure; may explode if heated.

Causes damage to organs: cardiovascular system |

Precautionary statements General:

Keep out of reach of children. Read label before use. If medical advice is needed, have product container or label at hand.

Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling.

Response:

IF exposed or concerned: Call a POISON CENTRE or doctor/physician. Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store in a well-ventilated place. Store locked up.

Disposal:

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

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt | Common Name |
|----------------------|--------------|------------------------|--|
| D-Limonene | 5989-27-5 | 70 - 90 | Cyclohexene, 1-methyl-4-(1- methylethenyl)-, (R)- |
| Propane | 74-98-6 | 10 - 30 Trade Secret * | Propane |
| Polysorbate 80 | 9005-65-6 | 1 - 7 | Sorbitan, mono-9-octadecenoate, poly(oxy- 1,2-ethanediyl) derivs., (Z)- |
| Non-ionic surfactant | Trade Secret | < 5 | Not Applicable |

Non-ionic surfactant is a non-hazardous Trade Secret material according to WHMIS criteria.

*The actual concentration of this ingredient has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

| <u>Substance</u> | <u>Condition</u> |
|------------------|-------------------|
| Aldehydes | During Combustion |
| Hydrocarbons | During Combustion |
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Ketones | During Combustion |

5.3. Special protective actions for fire-fighters

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Close cylinder. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. 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 SDS. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe

dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments | |
|--|------------|--------|------------------------------|---------------------|--|
| Cyclohexene, 1-methyl-4-(1- | 5989-27-5 | AIHA | TWA:165.5 mg/m3(30 ppm) | | |
| methylethenyl)- | | | | | |
| Propane | 74-98-6 | ACGIH | Limit value not established: | simple asphyxiant | |
| ACCIH : American Conference of Governmental Industrial Hydrausis | | | | | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates Half facepiece or full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| 1. Information on basic physical and chemical propert | ies |
|---|---|
| Physical state | Gas Aerosol |
| Specific Physical Form: | Aerosol |
| Colour | Light Yellow |
| Odour | Sweet Odour |
| Odour threshold | No Data Available |
| рН | Not Applicable |
| Melting point/Freezing point | No Data Available |
| Boiling point | Not Applicable |
| Flash Point | -45.6 °C |
| Evaporation rate | Not Applicable |
| Flammability (solid, gas) | Flammable Aerosol: Category 1. |
| Flammable Limits(LEL) | No Data Available |
| Flammable Limits(UEL) | No Data Available |
| Vapour Pressure | 3,733 Pa [@ 20 °C] [Details: Composite Vapour Pressure |
| - | (Calculated)] |
| Vapour Density | Not Applicable |
| Density | 0.784 g/ml |
| Relative density | 0.784 [<i>Ref Std</i> :WATER=1] |
| Water solubility | Slight (less than 10%) |
| Solubility- non-water | No Data Available |
| Partition coefficient: n-octanol/ water | No Data Available |
| Autoignition temperature | No Data Available |
| Decomposition temperature | Not Applicable |
| Viscosity | Not Applicable |
| Molecular weight | No Data Available |
| Volatile Organic Compounds | 95.7 % [Test Method:calculated per CARB title 2] |
| Volatile Organic Compounds | 751 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1] |
| 8 I | [Details: Material VOC] |
| Solids Content | 2 - 7 % |
| | |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid Heat

10.5. Incompatible materials Strong oxidizing agents

10.6. Hazardous decomposition products

Substance None known. **Condition**

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

May be harmful if inhaled. May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

| Name | Route | Species | Value |
|----------------------|---------------------------------------|------------------|--|
| Overall product | Inhalation- Vapor(4 hr) | | No data available; calculated ATE20 - 50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE2,000 - 5,000 mg/kg |
| D-Limonene | Inhalation- Vapor (4 hours) | Mouse | LC50 > 3.14 mg/l |
| D-Limonene | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| D-Limonene | Ingestion | Rat | LD50 4,400 mg/kg |
| Propane | Inhalation- Gas (4 hours) | Rat | LC50 > 200,000 ppm |
| Polysorbate 80 | Dermal | Not available | LD50 > 5,000 mg/kg |
| Non-ionic surfactant | Dermal | Rabbit | LD50 > 19,340 mg/kg |
| Non-ionic surfactant | Inhalation- Dust/Mist | Rat | LC50 estimated to be 5 - 12.5 mg/l |
| Non-ionic surfactant | Ingestion | Rat | LD50 3,300 mg/kg |
| Polysorbate 80 | Inhalation- Dust/Mist (4 hours) | Rat | LC50 > 5.1 mg/l |
| Polysorbate 80 | Ingestion | Rat | LD50 20,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|----------------|---------|---------------------------|
| | | |
| D-Limonene | Rabbit | Mild irritant |
| Propane | Rabbit | Minimal irritation |
| Polysorbate 80 | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|----------------|---------|---------------------------|
| D-Limonene | Rabbit | Mild irritant |
| Propane | Rabbit | Mild irritant |
| Polysorbate 80 | Rabbit | No significant irritation |

Skin Sensitization

| Name | Species | Value |
|-----------------|---------|----------------|
| Overall product | Guinea | Not classified |
| | pig | |
| D-Limonene | Mouse | Sensitizing |
| Polysorbate 80 | Guinea | Not classified |
| | pig | |

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

| Name | Route | Value |
|----------------|----------|---------------|
| | | |
| D-Limonene | In Vitro | Not mutagenic |
| D-Limonene | In vivo | Not mutagenic |
| Propane | In Vitro | Not mutagenic |
| Polysorbate 80 | In Vitro | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|----------------|-----------|---------|--|
| D-Limonene | Ingestion | Rat | Some positive data exist, but the data are not sufficient for classification |
| Polysorbate 80 | Ingestion | Rat | Some positive data exist, but the data are not sufficient for classification |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|----------------|-----------|--|-------------------------------|--------------------------|------------------------------------|
| D-Limonene | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | premating & during gestation |
| D-Limonene | Ingestion | Not classified for development | Multiple animal species | NOAEL 591 mg/kg/day | during organogenesi s |
| Polysorbate 80 | Ingestion | Not classified for female reproduction | Rat | NOAEL 6,666 mg/kg/day | 3 generation |
| Polysorbate 80 | Ingestion | Not classified for male reproduction | Rat | NOAEL 6,666 mg/kg/day | 3 generation |
| Polysorbate 80 | Ingestion | Not classified for development | Rat | NOAEL 5,000 mg/kg/day | during organogenesi s |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure |
|------------|------------|------------------------|-------------------------|---------|-------------|----------|
| | | | | | | Duration |
| D-Limonene | Ingestion | nervous system | Not classified | | NOAEL Not | |
| | | | | | available | |
| Propane | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not | |
| | | | | | available | |
| Propane | Inhalation | central nervous | May cause drowsiness or | Human | NOAEL Not | |
| | | system depression | dizziness | | available | |
| Propane | Inhalation | respiratory irritation | Not classified | Human | NOAEL Not | |
| | | | | | available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|----------------|-----------|---|----------------|---------|-----------------------------|----------------------|
| D-Limonene | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 75 mg/kg/day | 103 weeks |
| D-Limonene | Ingestion | liver | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| D-Limonene | Ingestion | heart endocrine system bone, teeth, nails, and/or hair hematopoietic system immune system muscles nervous system respiratory system | Not classified | Rat | NOAEL 600 mg/kg/day | 103 weeks |
| Polysorbate 80 | Ingestion | heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system | Not classified | Rat | NOAEL 4,132 mg/kg/day | 90 days |

| | kidney and/or bladder respiratory system | | | | |
|--|--|--|--|--|--|
|--|--|--|--|--|--|

Aspiration Hazard

| Name | Value |
|------------|-------------------|
| D-Limonene | Aspiration hazard |

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

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

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

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.

Health: 2 Flammability: 4 Instability: 1 Special Hazards: None Aerosol Storage Code: 2

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