

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 identifier

3M Brand Contact Cleaner

Product Identification Numbers

CE-1006-8326-3 CE-1006-8590-4

1.2. Recommended use and restrictions on use

Intended Use

Electrical Contact Cleaner

Restrictions on use

Not applicable

1.3. Supplier's details

Company: 3M Canada Company

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:1-800-3M HELPS / 1-800-364-3577; 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. Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Gas cylinder | Exclamation mark |

Pictograms



Hazard statements

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May cause an allergic skin reaction. May cause drowsiness or dizziness.

Precautionary statements

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. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves. Contaminated work clothing must not be allowed out of the workplace.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Call a POISON centre or doctor/physician if you feel unwell.

Storage:

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

Disposal:

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

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	60 - 80 Trade Secret *	Cyclohexene, 1-methyl-4-(1-
			methylethenyl)-, (R)-
Heavy Alkylate Naphtha	64741-65-7	15 - 40 Trade Secret *	Naphtha (petroleum), heavy alkylate
(Petroleum)			
Carbon Dioxide	124-38-9	3 - 7	Carbon dioxide

^{*}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. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. 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

Not applicable

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.

5.3. Special protective actions for fire-fighters

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. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. 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. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

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. Contain spill. Cover spill area with a fire-extinguishing foam. 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. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. 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. Seal the container. 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

For industrial or professional use only. Not for consumer sale or use. 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. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. 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. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Protect from sunlight. Store in a well-ventilated place. 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
Carbon Dioxide	124-38-9	ACGIH	TWA:5000 ppm;STEL:30000	
			ppm	

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

None required.

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile

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 vapors

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

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Physical state	Liquid				
Specific Physical Form:	Aerosol				
Colour	Colourless				
Odour	Lemon, Orange				
Odour threshold	No Data Available				
рН	No Data Available				
Melting point/Freezing point	No Data Available				
Boiling point	154 °C				
Flash Point	46.1 °C [Test Method:Closed Cup]				
Evaporation rate	<=0.1 [<i>Ref Std</i> :ETHER=1]				
Flammability (solid, gas)	Not Applicable				
Flammable Limits(LEL)	1 %				
Flammable Limits(UEL)	6 %				
Vapour Pressure	160 Pa				
Viscosity/Kinematic Viscosity Viscosity/Kinematic	[Ref Std:AIR=1]No Data Available				
Viscosity					
Relative density	0.84 [Ref Std:WATER=1]				
Water solubility	No Data Available				
Solubility- non-water	No Data Available				
Partition coefficient: n-octanol/ water	No Data Available				
Autoignition temperature	236.7 °C				
Decomposition temperature	No Data Available				
Viscosity/Kinematic Viscosity	No Data Available				
Volatile Organic Compounds	No Data Available				
Percent volatile	No Data Available				
VOC Less H2O & Exempt Solvents	[Details:CONDITIONS: %WT.]No Data Available				

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

SubstanceConditionCarbon monoxideNot SpecifiedCarbon dioxideNot Specified

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. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

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

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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.

Acute Toxicity

Tieute I okiety			·
Name	Route	Species	Value
Overall product	Inhalation-		No data available; calculated ATE20 - 50 mg/l
-	Vapor(4 hr)		_
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
D-Limonene	Inhalation-	Mouse	LC50 > 3.14 mg/l
	Vapor (4		
	hours)		

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D-Limonene	Dermal	Rabbit	LD50 > 5,000 mg/kg
D-Limonene	Ingestion	Rat	LD50 4,400 mg/kg
Heavy Alkylate Naphtha (Petroleum)	Dermal	Rat	LD50 > 3,000 mg/kg
Heavy Alkylate Naphtha (Petroleum)	Inhalation-	Rat	LC50 > 9.3 mg/l
	Vapor (4		
	hours)		
Heavy Alkylate Naphtha (Petroleum)	Ingestion	Rat	LD50 > 7,500 mg/kg
Carbon Dioxide	Inhalation-	Rat	LC50 > 53,000 ppm
	Gas (4		
	hours)		

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
D-Limonene	Rabbit	Mild irritant
Heavy Alkylate Naphtha (Petroleum)	Rabbit	Minimal irritation

Serious Eve Damage/Irritation

Scribus Lyc Damage/Hittation		
Name	Species	Value
D-Limonene	Rabbit	Mild irritant
Heavy Alkylate Naphtha (Petroleum)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
D-Limonene	Mouse	Sensitizing
Heavy Alkylate Naphtha (Petroleum)	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

Germ Cen Wattagementy	Serin Centificações				
Name	Route	Value			
D-Limonene	In Vitro	Not mutagenic			
D-Limonene	In vivo	Not mutagenic			
Heavy Alkylate Naphtha (Petroleum)	In Vitro	Not mutagenic			
Heavy Alkylate Naphtha (Petroleum)	In vivo	Not mutagenic			

Carcinogenicity

- m - cm - g - m - cm - g - m - cm - cm			
Name	Route	Species	Value
D-Limonene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Heavy Alkylate Naphtha (Petroleum)	Dermal	Mouse	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
Heavy Alkylate Naphtha (Petroleum)	Inhalation	Not classified for development	Rat	NOAEL 900 ppm	during organogenesi s

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Carbon Dioxide	Inhalation	Not classified for male reproduction	Mouse	LOAEL	not available
				350,000 ppm	
Carbon Dioxide	Inhalation	Not classified for development	Rat	LOAEL	24 hours
				60,000 ppm	

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	Durución
Heavy Alkylate Naphtha (Petroleum)	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Not available	NOAEL Not available	
Heavy Alkylate Naphtha (Petroleum)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	
Heavy Alkylate Naphtha (Petroleum)	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Not available	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
Heavy Alkylate Naphtha (Petroleum)	Dermal	bone marrow	Not classified	Rat	NOAEL 2,000 mg/kg/day	4 weeks
Heavy Alkylate Naphtha (Petroleum)	Dermal	hematopoietic system	Not classified	Rat	NOAEL 2,000 mg/kg	4 weeks
Heavy Alkylate Naphtha (Petroleum)	Inhalation	hematopoietic system liver kidney and/or bladder	Not classified	Rat	NOAEL 10.2 mg/l	13 weeks
Heavy Alkylate Naphtha (Petroleum)	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	4 weeks
Carbon Dioxide	Inhalation	heart bone, teeth, nails, and/or hair liver nervous system kidney and/or bladder respiratory system	Not classified	Rat	LOAEL 60,000 ppm	166 days

Aspiration Hazaru					
Name	Value				
D-Limonene	Aspiration hazard				
Heavy Alkylate Nanhtha (Petroleum)	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

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No data available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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.

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: 2 Instability: 0 Special Hazards: None

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.

HMIS Hazard Classification

Health: 2 Flammability: 2 Physical Hazard: 0 Personal Protection: B

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES

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3M Canada SDSs are available at www.3M.ca