



Safety Data Sheet

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Document Group:	28-9277-6	Version Number:	4.00
Issue Date:	11/19/20	Supersedes Date:	01/19/18

SECTION 1: Identification

1.1. Product identifier

3M™ Glass Cleaner Concentrate

Product Identification Numbers

70-0715-9258-1, 70-0716-8353-9
7100002381, 7100076865

1.2. Recommended use and restrictions on use

Recommended use

Non-streaking cleaner for windows, glass and mirrors., Hard Surface Cleaner

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Commercial Solutions Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Liquid: Category 3.

Serious Eye Damage/Irritation: Category 2A.

2.2. Label elements

Signal word

Warning

Symbols

Flame | Exclamation mark |

Pictograms

**Hazard Statements**

Flammable liquid and vapor.

Causes serious eye irritation.

Precautionary Statements**Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Response:

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

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

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	60 - 90 Trade Secret *
Decyl Glucoside	68515-73-1	3 - 8 Trade Secret *
Isopropanol	67-63-0	3 - 7 Trade Secret *
Lauryl Glucoside	110615-47-9	1 - 5 Trade Secret *
POTASSIUM CARBONATE	584-08-7	0.5 - 1.5 Trade Secret *
SODIUM LAURYL SULFATE	151-21-3	1 - 1.5 Trade Secret *
Fragrance	Trade Secret*	< 1 Trade Secret *
GLYCERIN	56-81-5	0.1 - 0.5 Trade Secret *
Acid Blue 9	3844-45-9	<= 0.01 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition 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:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

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>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

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 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. 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

Contain spill. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. 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 water. 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

This product is not intended to be used without prior dilution as specified on the product label. Avoid eye contact. For industrial/occupational use only. Not for consumer sale or use. Grounding or safety shoes with electrostatic dissipating soles (ESD) are not required with a chemical dispensing system. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. 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
GLYCERIN	56-81-5	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Isopropanol	67-63-0	ACGIH	TWA:200 ppm;STEL:400 ppm	A4: Not class. as human carcin
Isopropanol	67-63-0	OSHA	TWA:980 mg/m3(400 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists
 AIHA : American Industrial Hygiene Association
 CMRG : Chemical Manufacturer's Recommended Guidelines
 OSHA : United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted-Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

NOTE: When used with a chemical dispensing system as directed, special ventilation is not required. 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/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

NOTE: When used with a chemical dispensing system as directed, eye contact with the concentrate is not expected to occur. If the product is not used with a chemical dispensing system or if there is an accidental release, wear protective eye/face protection.

If product is not used with a chemical dispensing system or if there is an accidental release:

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:

Indirect Vented Goggles

Skin/hand protection

NOTE: When used with a chemical dispensing system as directed, skin contact with the concentrate is not expected to occur. If product is not used with a chemical dispensing system or if there is an accidental release:

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.

Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

NOTE: When used with a chemical dispensing system as directed, respiratory protection is not required.

If product is not used with a chemical dispensing system or if there is an accidental release:

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 and particulates

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

Appearance

Physical state

Liquid

Color

Blue, Violet

Specific Physical Form:

Liquid

Odor

Apple

Odor threshold

No Data Available

pH

11.4

Melting point

Not Applicable

Boiling Point

300 °F

Flash Point

120 °F [*Test Method:*Closed Cup] [*Details:*Does not sustain combustion, ASTM D-4206.]

Evaporation rate

Not Applicable

Flammability (solid, gas)

Not Applicable

Flammable Limits(LEL)

No Data Available

Flammable Limits(UEL)	No Data Available
Vapor Pressure	No Data Available
Vapor Density	No Data Available
Density	No Data Available
Specific Gravity	1.019 [Ref Std:WATER=1]
Solubility in Water	Complete
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	Not Applicable
Autoignition temperature	Not Applicable
Decomposition temperature	No Data Available
Viscosity	< 50 centipoise
Hazardous Air Pollutants	Not Applicable
Volatile Organic Compounds	3 - 7 % [Test Method:calculated per CARB title 2]
Percent volatile	70 - 100 %
VOC Less H2O & Exempt Solvents	100 - 300 g/l [Test Method:calculated per CARB title 2]

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

None known.

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:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

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

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

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

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Decyl Glucoside	Dermal	Rabbit	LD50 > 11,200 mg/kg
Decyl Glucoside	Ingestion	Rat	LD50 3,730 mg/kg
Isopropanol	Dermal	Rabbit	LD50 12,870 mg/kg
Isopropanol	Inhalation-Vapor (4 hours)	Rat	LC50 72.6 mg/l
Isopropanol	Ingestion	Rat	LD50 4,710 mg/kg
Lauryl Glucoside	Dermal	Rabbit	LD50 > 1,000 mg/kg
Lauryl Glucoside	Ingestion	Rat	LD50 > 2,500 mg/kg
SODIUM LAURYL SULFATE	Dermal	Rabbit	LD50 580 mg/kg
SODIUM LAURYL SULFATE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.975 mg/l
SODIUM LAURYL SULFATE	Ingestion	Rat	LD50 1,650 mg/kg
POTASSIUM CARBONATE	Dermal	Rabbit	LD50 > 2,000 mg/kg
POTASSIUM CARBONATE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.58 mg/l
POTASSIUM CARBONATE	Ingestion	Rat	LD50 1,870 mg/kg
GLYCERIN	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
GLYCERIN	Ingestion	Rat	LD50 > 5,000 mg/kg
Acid Blue 9	Ingestion	Rat	LD50 > 2,000 mg/kg
Acid Blue 9	Dermal	similar health hazards	LD50 Not available

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Isopropanol	Multiple animal species	No significant irritation
Lauryl Glucoside	Rabbit	Irritant
SODIUM LAURYL SULFATE	Rabbit	Irritant
POTASSIUM CARBONATE	Rabbit	Minimal irritation
GLYCERIN	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
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Overall product	In vitro data	Severe irritant
Isopropanol	Rabbit	Severe irritant
Lauryl Glucoside	Rabbit	Corrosive
SODIUM LAURYL SULFATE	Rabbit	Corrosive
POTASSIUM CARBONATE	Rabbit	Corrosive
GLYCERIN	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Isopropanol	Guinea pig	Not classified
Lauryl Glucoside	Guinea pig	Not classified
GLYCERIN	Guinea pig	Not classified

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
Isopropanol	In Vitro	Not mutagenic
Isopropanol	In vivo	Not mutagenic
Lauryl Glucoside	In Vitro	Not mutagenic
Lauryl Glucoside	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Isopropanol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
GLYCERIN	Ingestion	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
Isopropanol	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
Isopropanol	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
GLYCERIN	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
GLYCERIN	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
GLYCERIN	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isopropanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Isopropanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for	Human	NOAEL Not available	

			classification			
Isopropanol	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
Isopropanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Lauryl Glucoside	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
SODIUM LAURYL SULFATE	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
POTASSIUM CARBONATE	Inhalation	respiratory irritation	May cause respiratory irritation		NOAEL not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isopropanol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
Isopropanol	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
Isopropanol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
Lauryl Glucoside	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 250 mg/kg/day	90 days
Lauryl Glucoside	Ingestion	endocrine system liver immune system nervous system hematopoietic system eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
GLYCERIN	Inhalation	respiratory system heart liver kidney and/or bladder	Not classified	Rat	NOAEL 3.91 mg/l	14 days
GLYCERIN	Ingestion	endocrine system hematopoietic system liver kidney and/or bladder	Not classified	Rat	NOAEL 10,000 mg/kg/day	2 years

Aspiration Hazard

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

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

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

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. US Federal Regulations

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

Health Hazards

Serious eye damage or eye irritation

15.2. State Regulations

15.3. Chemical Inventories

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 product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the provisions of the Korean Toxic Chemical 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 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.

This product complies with the New Zealand Hazardous Substances and New Organisms Act (1996).

15.4. International Regulations

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

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.

Document Group:	28-9277-6	Version Number:	4.00
Issue Date:	11/19/20	Supercedes Date:	01/19/18

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