



Safety Data Sheet

Glass Cleaner

SECTION 1. IDENTIFICATION

Product Identifier	Glass Cleaner
Part number	TNDS8009
Product Family	Aqueous solution
Recommended Use	Cleaner.
Restrictions on Use	None known.
Manufacturer	Shrader Canada Limited, 830 Progress Court, Oakville, ON, L6L 6K1, +1.905.847.0222, www.shradercanada.com
Emergency Phone No.	CANUTEC, +1.613.996.6666, Operation hours: 24/7

SECTION 2. HAZARD IDENTIFICATION

Classification

Gas under pressure - Compressed gas; Skin irritation - Category 2; Eye irritation - Category 2A; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Warning

Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

Avoid breathing mist, vapours, spray.
Wash hands and skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves.
Wear eye protection/face protection.

IF ON SKIN: Wash with plenty of water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

Product Identifier:	Glass Cleaner
SDS No.:	TNDS8009
Date of Preparation:	September 30, 2015

If eye irritation persists: Get medical advice/attention.
Call a POISON CENTRE or doctor if you feel unwell.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Acetone	67-64-1	7-13	
Petroleum gases, liquefied	68476-85-7	5-10	
Isopropanol	67-63-0	3-7	
2-Butoxyethanol	111-76-2	1-5	
Morpholine	110-91-8	0.1-1.0	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice or attention.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Drink two glasses of water, seek medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

Do not use a direct stream of water.

Specific Hazards Arising from the Product

This product presents no unusual hazards in a fire situation. Does not burn.

In a fire, the following hazardous materials may be generated: carbon oxides, hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters

Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA).

Product Identifier: Glass Cleaner

SDS No.: TND8009

Date of Preparation: September 30, 2015

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Containers of this material may contain hazardous residues when "emptied".

Conditions for Safe Storage

Store in an area that is: cool, ventilated, dry.

Keep from freezing. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL [C]	TWA	Ceiling
Morpholine	20 ppm A4	Not established	20 ppm Skin	Not established
2-Butoxyethanol	20 ppm A3	Not established	240 mg/m3	Not established
Isopropanol	200 ppm A4	400 ppm	980000 mg/m3	Not established
Acetone	500 ppm A4	750 ppm A4	1000 ppm	Not established

Appropriate Engineering Controls

Sufficient mechanical ventilation to maintain exposures below the TLV. Under normal conditions of use, general ventilation should be satisfactory. Local ventilation is recommended if the product is misted or used in a confined space or if the TLV is exceeded. Make up air should always be supplied to balance air exhausted. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: nitrile rubber, neoprene rubber.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear colourless Aerosol.
Odour	mild
Odour Threshold	Not available
pH	9.9

Product Identifier: Glass Cleaner

SDS No.: TND8009

Date of Preparation: September 30, 2015

Page 03 of 07

Melting Point/Freezing Point	Not applicable (melting)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	0.983 at 15 °C
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Viscosity	< 14 centistokes at 40°C (kinematic)
Other Information	
VOC %	Not available
Flame projection	Not applicable
NFPA Classification	Aerosol, Level 1

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable at ambient temperatures and pressures.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Elevated pressure. High temperatures.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products

Carbon oxides. And other unidentified organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation;
Skin contact;
Eye contact;
Ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Morpholine	2250 ppm (rat) (4-hour exposure)	1050 mg/kg (rat)	5000 mg/kg (rabbit)

Product Identifier: Glass Cleaner

SDS No.: TNDS8009

Date of Preparation: September 30, 2015

2-Butoxyethanol	450 ppm (female rat) (4-hour exposure)	530 mg/kg (female rat)	400-500 mg/kg (rabbit)
Isopropanol	17000 ppm (rat) (4-hour exposure)	4720 mg/kg (male rat)	12890 mg/kg (rabbit)
Acetone	30000 ppm (male rat) (4-hour exposure)	5800 mg/kg (female rat)	> 15800 mg/kg (rabbit)

Skin Corrosion/Irritation

There is limited evidence of mild irritation.

Serious Eye Damage/Irritation

Moderate to severe irritant.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No hazard under normal conditions of use.

Inhalation of mist or vapours formed at high temperatures or on mixing may cause respiratory irritation. At high concentrations symptoms may include headache, nausea, dizziness, drowsiness and confusion.

Skin Absorption

No information was located.

Ingestion

Ingestion of small amounts during normal handling is not likely to cause injury.

If large amounts are swallowed can cause effects as described for inhalation.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization.

No information was located for skin sensitization.

Carcinogenicity

Chemical Name	ACGIH®	IARC	NTP	OSHA
Morpholine	A4	Group 3	Not Listed	Not Listed
2-Butoxyethanol	A3	Group 3	Not Listed	Not Listed
Isopropanol	A4	Group 3	Not Listed	Not Listed
Petroleum gases, liquefied	Not Listed	Not Listed	Not Listed	Not Listed

Not a carcinogen.

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen. A4 = Not classifiable as a human carcinogen.

IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans.

No information was located for: Development of Offspring, Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Product Identifier: Glass Cleaner
SDS No.: TND8009
Date of Preparation: September 30, 2015

Contents under pressure, do not puncture, incinerate or expose to heat when empty.
Dispose of in accordance with municipal, provincial/state or federal regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1950	Aerosols	2.2	---
IMDG (Marine)	UN1950	Aerosols	2.2	---
IATA (Air)	UN1950	Aerosols, non-flammable	2.2	---

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Emergency Response Guide No. 126 EmS F-D, S-U

Other Information ICAO/IATA PI Y203/203
Product may ship as LTD QTY if TDG, ICAO/IATA or IMDG Limited Quantity provisions are met.

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

CEPA - National Pollutant Release Inventory (NPRI)

(2-Butoxyethanol) Part 1A.

(Methanol) Part 1A.

(Isopropanol) Part 5.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

CERCLA. (Acetone)

SARA Title III - Section 302: Not applicable.

SARA Title III - Section 313:

California Proposition 65: Not applicable.

Massachusetts Right To Know: Not applicable.

New Jersey Right To Know. (Morpholine). (2-Butoxyethanol). (Isopropanol). (Acetone). (Petroleum gases, liquefied)

Pennsylvania Right To Know. (Morpholine). (2-Butoxyethanol). (Isopropanol). (Acetone). (Petroleum gases, liquefied)

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 0	Flammability - 0	Instability - 0
SDS Prepared By	Regulatory Compliance		
Phone No.	905.847.0222		
Date of Preparation	September 30, 2015		
Date of Last Revision	March 07, 2016		
Revision Indicators	The following SDS content was changed on March 07, 2016:		

Product Identifier: Glass Cleaner

SDS No.: TND8009

Date of Preparation: September 30, 2015

SECTION 2. HAZARD IDENTIFICATION; Label Elements.
SECTION 16. OTHER INFORMATION; References.

Key to Abbreviations

ACGIH® = American Conference of Governmental Hygienists
CANUTEC = Canadian Transport Emergency Centre
CAS = Chemical Abstract Service
CCOHS = Canadian Centre for Occupational Health & Safety
CNS = Central nervous system
GESTIS = GESTIS Substance Database
HSDB® = Hazardous Substances Data Bank
IARC = International Agency for Research on Cancer
ICAO = International Civil Aviation Organization
IMDG = International Maritime Dangerous Goods Code
LC = Lethal concentration
LD = Lethal dose
NFPA = National Fire Protection Association
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration
PPM = Parts per million
RTECS® = Registry of Toxic Effects of Chemical Substances
STEL = Short term exposure limit
TDG = Transportation of Dangerous Goods Regulations (Canada)
TWA = Time weighted average

References

Material safety data sheet from manufacturer.
CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
Registry of Toxic Effects of Chemical Substances (RTECS®) database. Accelrys, Inc. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
ECHA - European Chemical Agency, Classification and Labelling Inventory
GESTIS Substance Database
OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2015.

Disclaimer

The information contained herein is offered only as a guide to the use and handling of this specific material and has been prepared in good faith. It is not intended to be all-inclusive, and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied. Shrader Canada Limited will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein.

Product Identifier: Glass Cleaner
SDS No.: TND8009
Date of Preparation: September 30, 2015

Page 07 of 07