

1. Identification	
Product Name(Identifier)	TST Glass Cleaner
Manufacturer	Total Systems Technology Inc.
Address	65 Terence Drive, Pittsburgh, PA 15236
Phone Number	412-653-7690
Emergency Phone Number	800-245-4828
Recommended Use	Glass Cleaner
Restrictions on Use	Not for use on skin

2. Hazard Identification	
Classification	Gas under pressure, liquefied gas
Hazard Statements	Contain gas under pressure; may explode if heated Wash hands after handling.
Precautionary Statements	Observe good industrial hygiene practices Protect from sunlight
Signal Word	Warning

## Pictograms

Pres. Gas



3. Composition/ Information on Ingredients	
Substances (Synonyms, other ID information)	%
2- Butoxyethaol ( CAS #= 111-76-2)	2.5-10%
Ethyl Alcohol ( CAS #= 64-17-5)	2.5-10%
Butane (CAS #= 106-97-8)	1-2.5%
Propane (CAS #= 74-98-6)	1-2.5%
Other components below reportable levels	90-100%
Trade Secret Claims	The exact concentration of these ingredients are being withheld in accordance with the OSHA 1910.1200 (i).

4. First Aid Measures	
Symptoms	Direct contact with eyes may cause temporary irritation.
Required Treatment	<p><b>SKIN:</b> Wash off with soap and water. Get medical attention if irritation develops and persists.</p> <p><b>EYE:</b> Rinse with water. Get medical attention if irritation develops and persists.</p> <p><b>ORAL:</b> Contact a physician or a poison control center. Rinse mouth with water.</p> <p><b>INHALATION:</b> Move to fresh air. Call a physician if symptoms develop or persist.</p>

5. Fire-fighting Measures	
Extinguishing Techniques	Water fog, foam, dry chemical powder, CO2
	Cool containers with water to prevent vapor build up. In large fires, withdraw and let the fire burn out. Contact 911 or local fire personnel.
Proper Equipment	Standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces an SCBA.
Chemical Hazards from Fire	During fire, gases hazardous to health may be formed.
Not acceptable Techniques	Do not use water jet as an extinguisher.

6. Accidental Release Measures	
Emergency Procedures	Ensure adequate ventilation, keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing proper personal protective equipment.
Emergency Equipment	Use standard personnel protective equipment (see Section 8).
Proper method of cleanup	Eliminate all ignition sources including combustibles. Stop leak if able to do so without risk. Move cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry to waterways, sewers, and confined areas.

7. Handling and Storage	
Precautions for Safe Handling	Pressurized Container: Do not pierce or burn, even

	after use. Do not use if spray button is missing or defective. Do not spray on a naked flamer or other incandescent material. Do not smoke while using. Avoid contact with skin, avoid prolonged exposure.
<b>Precautions for Safe Storage</b>	Level 1 Aerosol (NFPA 30B). Do not expose to temperatures exceeding 122 F. Store in well ventilated areas and away from incompatible materials.
<b>Incompatibilities</b>	None Known

<b>8. Exposure Controls/ Personal Protective Equipment</b>	
<b>OSHA PEL</b>	2- Butoxyethanol= 50 ppm Ethyl Alcohol=1000 ppm Propane=1000 ppm
<b>NIOSH REL</b>	2- Butoxyethanol= 5 ppm TWA Butane= 800 ppm TW Ethyl Alcohol= 1000 ppm TWA Propane= 1000 ppm TWA
<b>ACGIH TLV</b>	2- Butoxyethanol= 20 ppm Ethyl Alcohol=1000 ppm STEL Propane=2500 ppm
<b>Appropriate Engineering Controls</b>	Good Ventilation/exhaust ventilation if airborne levels are above recommended levels.
<b>Personal Protective Equipment</b>	
<b>Eyes</b>	Safety goggles with side shields
<b>Face</b>	N/A
<b>Body</b>	Wear chemical resistant clothing if large quantities
<b>Foot</b>	N/A
<b>Ears</b>	N/A
<b>Gloves</b>	Wear protective gloves
<b>Respiratory</b>	If engineer controls do not keep levels below limits, use NIOSH mechanical filter/ organic vapor cartridge or air-supplying respirator

<b>9. Physical/Chemical Properties</b>	
<b>Appearance</b>	Colorless, pale yellow, liquefied gas.
<b>Odor</b>	Butyl
<b>Odor Threshold</b>	Not determined
<b>pH</b>	9.5-10.5 estimation
<b>Flash Point</b>	-156 F
<b>Melting Point/Freezing Point</b>	Not determined

Initial Boiling/ Freezing Point	Not determined
Flammability (solid/gas)	Gas
Upper Flammability/Explosive Limits	Not determined
Vapor Pressure	80-100 psi
Vapor Density	Not determined
Relative Density	Not determined
Water Solubility	Not determined
Partition Coefficient	Not determined
Deflagration density	>2.52 g/cm <sup>3</sup> tested
Viscosity	Not determined
Explosive Properties	Not determined
Aerosol spray ignition distance	<15 cm tested estimation

#### 10. Stability/ Reactivity

Reactivity	Product is stable and non reactive under normal conditions
Chemical Stability	Stable
Possibility of Hazardous Reactions	No dangerous reaction known under conditions of normal use. Avoid temperatures exceeding flash point.

#### 11. Toxicological Information

Acute Toxicity	Low Hazard
Inhalation	Prolonged inhalation, potentially harmful
Oral	Low ingestion hazard
Skin Corrosion/Irritation	Potentially dangerous effects not observed in humans
Eye Irritation	Temporary Irritation
Respiratory or skin sensitization/ mutagenicity	None Known
Carcinogenicity	No
Reproductive Toxicity	No
Specific Target Organ-Single Exposure	No
Specific Target Organ- Repeated Exposure	No
Aspiration Hazard	No

#### 12. Ecological Information

Toxicity	Harmful to aquatic life with long lasting effects
Persistence and Degradability	Not determined
Mobility in soil	Not determined

#### 13. Disposal Considerations

Waste Treatment Methods	Do not puncture container, do not leave dispose of in waterways
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Contaminated Packaging	Follow label warning , even if container is empty
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14. Transport Information	
DOT (US)	
UN number	UN1950
UN proper shipping name	Aerosols
Transport hazard class(es)	2.2
Packing group, if applicable	Not available
Environmental hazards (e.g., Marine pollutant (Yes/No)	yes
Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport	Read SDS and emergency procedures

15. Regulatory Information	
This product is a "Hazardous Chemical" as defined by the OSHA Standard, 29 CFR 1910.1200	
All components are listed on TSCA	

16. Other Information	
Preparation Date	8/19/2014
Revision Date	
Abbreviations	OSHA- Occupational Safety and Health Administration NIOSH- National Institute for Occupational Safety and Health ACGIH- American Conference of Governmental Industrial Hygienists PEL- Permissible Exposure Limit REL- Recommended Exposure Limit TLV- Threshold Limit Value STEL- Short Term Exposure Limit TWA- Time Weighted Average (8 hr/day). Ppm-parts per million Mg/m <sup>3</sup> - milligrams per meters cubed
Notice	Judgments as to the suitability of information herein for purchaser's purposes are the purchaser's responsibility. TST has taken reasonable care in preparing above information to be as accurate as possible. TST makes no warranties, representations, and assumes no responsibility to the suitability of such information and for the application of said product and the consequences that occur.