SAFETY DATA SHEET

Revision Date 26-Apr-2017
Version 5

1. IDENTIFICATION

Product identifier
Product Name Spray Nine Glass & Chrome Cleaner 19 oz.

Other means of identification
Product Code 23319
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Glass cleaner - Aerosol
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address ITW Permatex
6875 Parkland Blvd.
Solon, OH 44139 USA

May Also Be Distributed by: ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada L7G 0C6
Telephone: (800) 924-6994

24 Hour Emergency Phone Number Chem-Tel: 800-255-3924
International Emergency:
00+1 813-248-0585
Contract Number: MIS0003453

E-mail address mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification
OSHA Regulatory Status This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Gases under pressure Liquefied gas

Label elements

Emergency Overview

Warning
Contains gas under pressure; may explode if heated

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Precautionary Statements - Prevention
Pressurized container: Do not pierce or burn, even after use

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Protect from sunlight. Store in a well-ventilated place

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
- The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w 1,3-butadiene (EINECS No. 203-450-8)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance(s)</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPANE</td>
<td>74-98-6</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td>BUTANE</td>
<td>106-97-8</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL</td>
<td>111-76-2</td>
<td>1 - 5</td>
<td>*</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

Description of first aid measures

General advice
Get medical advice/attention if you feel unwell.

Eye contact
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.

Skin contact
IF ON SKIN:. Wash skin with soap and water. If skin irritation persists, call a physician. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion
IF SWALLOWED:. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider
Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms
See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES
Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
None.

Specific hazards arising from the chemical
Heating causes rise in pressure with risk of bursting. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Remove all sources of ignition. Do not puncture or incinerate cans.

Environmental precautions
Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Contents under pressure. Do not puncture or incinerate cans. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Protect from sunlight. Store in a well-ventilated place. Keep from freezing.

Incompatible materials
Strong oxidizing agents, Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPANE 74-98-6</td>
<td>See Appendix F: Minimal Oxygen Content</td>
<td>TWA: 1000 ppm TWA: 1800 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m³</td>
<td>IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³</td>
</tr>
</tbody>
</table>
BUTANE
106-97-8

STELE: 1000 ppm
(vacated) TWA: 800 ppm
TWA: 800 ppm
TWA: 1900 mg/m³

2-BUTOXYETHANOL
111-76-2
TWA: 20 ppm
TWA: 50 ppm
TWA: 24 mg/m³
(vacated) TWA: 25 ppm
(vacated) TWA: 120 mg/m³
S
S
TWA: 800 ppm
TWA: 5 ppm
TWA: 24 mg/m³

NIOSH IDLH  Immediately Dangerous to Life or Health

Other Information
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection
None under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>10.05-10.15</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 100 °C / &gt;212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td>Contents under pressure</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt; 1</td>
<td>Butyl acetate = 1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>&gt; 1</td>
<td>Air = 1</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.995-1.005</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
Other Information

Softening point
Molecular weight
VOC Content (%)
Density
Bulk density

No information available
No information available
7.5%
No information available
No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks. Keep from freezing.

Incompatible materials
Strong oxidizing agents, Acids

Hazardous Decomposition Products
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
May cause irritation of respiratory tract.

Eye contact
Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact
May cause skin irritation and/or dermatitis.

Ingestion
Ingestion may cause irritation to mucous membranes.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPANE 106-97-8</td>
<td>-</td>
<td>-</td>
<td>= 658 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>BUTANE 111-76-2</td>
<td>= 470 mg/kg (Rat)</td>
<td>= 99 mg/kg (Rabbit)</td>
<td>= 450 ppm (Rat) 4 h</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>A3</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

**Chronic toxicity**  
May cause adverse effects on the bone marrow and blood-forming system. May cause  
adverse liver effects.

**Target Organ Effects**  
Blood, Central nervous system, Eyes, Hematopoietic System, kidney, Liver, Respiratory  
system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .

<table>
<thead>
<tr>
<th>ATEmix (oral)</th>
<th>15667  mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEmix (dermal)</td>
<td>36667  mg/kg</td>
</tr>
<tr>
<td>ATEmix (inhalation-gas)</td>
<td>4587164  mg/l</td>
</tr>
<tr>
<td>ATEmix (inhalation-dust/mist)</td>
<td>50  mg/l</td>
</tr>
<tr>
<td>ATEmix (inhalation-vapor)</td>
<td>15000  mg/l</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

**Ecotoxicity**

7 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPANE 74-98-6</td>
<td>2.3</td>
</tr>
<tr>
<td>BUTANE 106-97-8</td>
<td>2.89</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>0.81</td>
</tr>
</tbody>
</table>

**Other adverse effects**

No information available

13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of wastes**  
Disposal should be in accordance with applicable regional, national and local laws and  
regulations.

**Contaminated packaging**

Do not reuse container.

**US EPA Waste Number**

Not applicable

14. TRANSPORT INFORMATION

**DOT**

<table>
<thead>
<tr>
<th>UN/ID no</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name:</td>
<td>Aerosols, Limited Quantity (LQ)</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>2.2</td>
</tr>
<tr>
<td>Emergency Response Guide Number</td>
<td>126</td>
</tr>
</tbody>
</table>
23319 - Spray Nine Glass & Chrome Cleaner 19 oz.  
Revision Date 26-Apr-2017

IATA
- UN/ID no: ID 8000
- Proper shipping name: Consumer commodity
- Hazard Class: 9
- ERG Code: 9L

IMDG
- UN/ID no: 1950
- Proper shipping name: Aerosols, Limited Quantity (LQ)
- Hazard Class: 2.2
- EmS-No: F-D, S-U

15. REGULATORY INFORMATION

International Inventories
- TSCA: Complies
- DSL/NDSL: Complies
- EINECS/ELINCS: Complies
- ENCS: Not determined
- IECSC: Complies
- KECL: Complies
- PICCS: Complies
- AICS: Complies

Legend:
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-BUTOXYETHANOL - 111-76-2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
- Acute health hazard: Yes
- Chronic Health Hazard: No
- Fire hazard: Yes
- Sudden release of pressure hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals
## U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER 7732-18-5</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>PROPANE 74-98-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BUTANE 106-97-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2-BUTOXYETHANOL 111-76-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

## U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

A Compressed gases

### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

**NFPA**

Health hazards: 1  
Flammability: 1  
Instability: 0  
-  

**HMIS**

Health hazards: 1  
Flammability: 1  
Physical hazards: 0  
Personal protection: B

NFPA (National Fire Protection Association)  
HMIS (Hazardous Material Information System)

Revision Date 26-Apr-2017

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet