



PENRAY PLUS™ GLASS CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 06/25/2014

Revision date: 06/25/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : PENRAY PLUS™ GLASS CLEANER
Product code : 84150

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Glass cleaner.

1.3. Details of the supplier of the safety data sheet

The Penray Companies, Inc.
440 Denniston Ct.
Wheeling, IL 60090
T (800) 373-6729
rotto@penray.com

1.4. Emergency telephone number

Emergency number : (800) 373-6729
CHEMTREC (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable Aerosol 1
Gases Under Pressure - Liquefied Gas
Eye irritation 2A

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation.

Precautionary statements (GHS-US) :

Keep away from heat/sparks/open flames/hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash hands thoroughly after handling. Wear eye protection/face protection. 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. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|-----------|--------------------|-------|--|
| Isobutane | (CAS No) 75-28-5 | 3 - 7 | Flam. Gas 1 Liquefied gas STOT SE 3 |
| Acetone | (CAS No) 67-64-1 | 3 - 7 | Flam. Liq. 2 Eye Irrit. 2A STOT SE 3 |

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| Name | Product identifier | % | GHS-US classification |
|---------------------|--------------------|-------|--|
| 1-Butoxy-2-propanol | (CAS No) 5131-66-8 | 1 - 5 | Flam. Liq. 4 Skin Irrit. 2 Eye Irrit. 2A |
| Isopropyl alcohol | (CAS No) 67-63-0 | 1 - 5 | Flam. Liq. 2 Eye Irrit. 2A STOT SE 3 |

* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory tract irritation..
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Powder, water spray, foam, carbon dioxide.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable aerosol. Products of combustion may include, and are not limited to: oxides of carbon.
- Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from sources of ignition. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid contact with skin and eyes. Avoid breathing gas/mist/vapors/spray. Do not swallow. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep locked up and out of reach of children. Do not expose to temperatures exceeding 50°C/ 122°F. Store away from direct sunlight or other heat sources. Store in a well-ventilated place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Isobutane (75-28-5) | | |
|---------------------|------------------|----------|
| USA ACGIH | ACGIH STEL (ppm) | 1000 ppm |

| Acetone (67-64-1) | | |
|-------------------|-------------------------------------|------------------------|
| USA ACGIH | ACGIH TWA (ppm) | 500 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 750 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 2400 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 1000 ppm |

| 1-Butoxy-2-propanol (5131-66-8) | | |
|---------------------------------|----------------|-----------------|
| USA ACGIH | ACGIH TWA | Not applicable. |
| USA OSHA | OSHA PEL (TWA) | Not applicable. |

| Isopropyl alcohol (67-63-0) | | |
|-----------------------------|-------------------------------------|-----------------------|
| USA ACGIH | ACGIH TWA (ppm) | 200 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 400 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 980 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 400 ppm |

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Safety glasses or goggles are recommended when using product.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas/Pressurized Liquid.

Appearance : Clear.

Colour : Colourless.

Odour : Solvent.

Odour threshold : No data available.

pH : No data available.

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| | |
|--|----------------------|
| Relative evaporation rate (butylacetate=1) | : No data available. |
| Melting point | : No data available. |
| Freezing point | : No data available. |
| Boiling point | : No data available. |
| Flash point | : No data available. |
| Self ignition temperature | : No data available. |
| Decomposition temperature | : No data available. |
| Flammability (solid, gas) | : Flammable. |
| Vapour pressure | : No data available. |
| Relative vapour density at 20 °C | : No data available. |
| Relative density | : 0.998 - 0.999 |
| Solubility | : No data available. |
| Log Pow | : No data available. |
| Log Kow | : No data available. |
| Viscosity, kinematic | : No data available. |
| Viscosity, dynamic | : No data available. |
| Explosive properties | : No data available. |
| Oxidising properties | : No data available. |
| Explosive limits | : No data available. |

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. Extremely flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Acids. Bases. Reducing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| 84150 | |
|---|-----------------------------|
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat (mg/l) | > 5 mg/l/4h |
| Isobutane (75-28-5) | |
| LC50 inhalation rat (mg/l) | 658 mg/l/4h |
| Acetone (67-64-1) | |
| LD50 oral rat | 5800 mg/kg |
| LC50 inhalation rat (mg/ m ³) | 50100 mg/m ³ /8h |
| 1-Butoxy-2-propanol (5131-66-8) | |
| LD50 oral rat | 3300 mg/kg |
| LD50 dermal rat | 3100 mg/kg |

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| Isopropyl alcohol (67-63-0) | |
|-----------------------------|--------------|
| LD50 oral rat | 4396 mg/kg |
| LD50 dermal rat | 12800 mg/kg |
| LD50 dermal rabbit | 12870 mg/kg |
| LC50 inhalation rat (mg/l) | 72.6 mg/l/4h |

| | |
|-----------------------------------|---|
| Skin corrosion/irritation | : Based on available data, the classification criteria are not met. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Based on available data, the classification criteria are not met. |
| Germ cell mutagenicity | : Based on available data, the classification criteria are not met. |
| Carcinogenicity | : Based on available data, the classification criteria are not met. |

| Isopropyl alcohol (67-63-0) | |
|-----------------------------|----------------------|
| IARC group | 3 - Not classifiable |

| | |
|--|---|
| Reproductive toxicity | : Based on available data, the classification criteria are not met. |
| Specific target organ toxicity (single exposure) | : Based on available data, the classification criteria are not met. |
| Specific target organ toxicity (repeated exposure) | : Based on available data, the classification criteria are not met. |
| Aspiration hazard | : Based on available data, the classification criteria are not met. |
| Symptoms/injuries after inhalation | : May cause respiratory tract irritation.. |
| Symptoms/injuries after skin contact | : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. |
| Symptoms/injuries after eye contact | : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. |
| Symptoms/injuries after ingestion | : May be harmful if swallowed. May cause stomach distress, nausea or vomiting. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-------------------|---|
| Ecology - general | : May cause long-term adverse effects in the aquatic environment. |
|-------------------|---|

12.2. Persistence and degradability

| 84150 | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| 84150 | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|--|
| Effect on ozone layer | : No additional information available |
| Effect on the global warming | : No known ecological damage caused by this product. |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--------------------------------|---|
| Waste disposal recommendations | : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible. |
| Additional information | : Flammable vapours may accumulate in the container. Do not incinerate closed containers. |

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

| | |
|--------|--------|
| UN-No. | UN1950 |
|--------|--------|

14.2. UN proper shipping name

| | |
|----------------------|-----------------------|
| Proper Shipping Name | : Aerosols, flammable |
| Hazard Classes | 2.1 |

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Hazard labels :



14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| | |
|---------------------|-------------------|
| Propanol, 2-butoxy- | CAS No 15821-83-7 |
|---------------------|-------------------|

Acetone (67-64-1)

| | |
|--------------------------|--|
| EPA TSCA Regulatory Flag | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. |
|--------------------------|--|

Isopropyl alcohol (67-63-0)

Listed on SARA Section 313 (Specific toxic chemical listings)

| | |
|--------------------------|--|
| EPA TSCA Regulatory Flag | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. |
|--------------------------|--|

| | |
|---------------------------------------|-------|
| SARA Section 313 - Emission Reporting | 1.0 % |
|---------------------------------------|-------|

15.2. US State regulations

84150

| | |
|----------------------------|--|
| State or local regulations | This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. |
|----------------------------|--|

SECTION 16: Other information

Indication of changes : None.

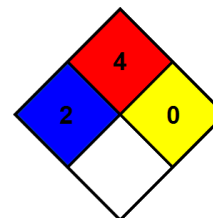
Date of issue : 06/25/2014

Other information : None.

NFPA health hazard : 2

NFPA fire hazard : 4

NFPA reactivity : 0



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product