



PENRAY COOL GARD

Safety Data Sheet

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

Date of issue: 07/10/2014

Revision date: 07/10/2014

Version: 1.0

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

1.1. Product identifier

Product name : PENRAY COOL GARD
Product code : 1742X

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

Use of the substance/mixture : Cooling system treatment.

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

Eye irritation 2A
Skin sensitization 1
Reproductive toxicity 2
Specific target organ toxicity - Repeated exposure 1

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US) : Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/attention. 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. If on skin: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

1 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Ethylene glycol	(CAS No) 107-21-1	3 - 7	Acute Tox. 4 (Oral) Eye Irrit. 2B STOT RE 1
Boric acid (HBO ₂), sodium salt, tetrahydrate	(CAS No) 10555-76-7	1 - 5	Eye Irrit. 2A Repr. 2
Sodium nitrite	(CAS No) 7632-00-0	1 - 5	Ox. Sol. 3 Acute Tox. 3 (Oral) Eye Irrit. 2A
Sodium mercaptobenzothiazole	(CAS No) 2492-26-4	0.1 - 1	Met. Corr. 1 Skin Corr. 1C Skin Sens. 1

* 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 : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and 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 irritation.
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.
- 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 : Treat for surrounding material.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

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).

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.

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 : Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Handle and open container with care. When using do not eat, drink or smoke.
- 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 out of the reach of children. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethylene glycol (107-21-1)

USA ACGIH	ACGIH Ceiling (mg/m ³)	100 mg/m ³
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Boric acid (HBO₂), sodium salt, tetrahydrate (10555-76-7)

USA ACGIH	ACGIH TWA	Not applicable.
USA OSHA	OSHA PEL (TWA)	Not applicable.

Sodium nitrite (7632-00-0)

USA ACGIH	ACGIH TWA	Not applicable.
USA OSHA	OSHA PEL (TWA)	Not applicable.

Sodium mercaptobenzothiazole (2492-26-4)

USA ACGIH	ACGIH TWA	Not applicable.
USA OSHA	OSHA PEL (TWA)	Not applicable.

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 : Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.
- 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 : Liquid.
- Appearance : No data available.
- Color : Green.
- Odor : Mild.
- Odor threshold : No data available.
- pH : No data available.
- 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.

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Decomposition temperature	: No data available.
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available.
Relative vapor density at 20 °C	: No data available.
Relative density	: 1.1 - 1.2
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.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Acids. Bases. Strong oxidizing agents. Permanganates. Peroxides.

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

1742X	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	No data available.

Ethylene glycol (107-21-1)	
LD50 oral rat	4000 mg/kg
LD50 dermal rabbit	9530 µL/kg

Sodium nitrite (7632-00-0)	
LD50 oral rat	180 mg/kg
LC50 inhalation rat	5.5 mg/l/4h

Sodium mercaptobenzothiazole (2492-26-4)	
LD50 oral rat	2100 mg/kg
LD50 dermal rabbit	> 7940 mg/kg

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	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.

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Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.
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

1742X

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

1742X

Bioaccumulative potential	Not established.
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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.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

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:

Phosphonic acid, methyl-, monomethyl ester, monosodium salt	CAS No 73750-69-3
Phosphonic acid, methyl-, mono[3-(trihydroxysilyl)propyl] ester, monosodium salt	CAS No 84962-98-1
Boric acid (HBO ₂), sodium salt, tetrahydrate	CAS No 10555-76-7

Ethylene glycol (107-21-1)

Listed on SARA Section 313 (Specific toxic chemical listings)

EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
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Ethylene glycol (107-21-1)	
SARA Section 313 - Emission Reporting	1.0 %

Sodium nitrite (7632-00-0)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	S - S - indicates a substance that is identified in a proposed or final Significant New Uses Rule.
SARA Section 313 - Emission Reporting	1.0 %

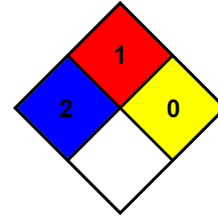
15.2. US State regulations

1742X	
State or local regulations	This product contains chemicals 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 : 07/10/2014
Other information : None.

NFPA health hazard : 2
NFPA fire hazard : 1
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