

# MATERIAL SAFETY DATA SHEET

## PENRAY PENCOOL 3000

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** PENCOOL 3000  
**Product Number:** 3000005C  
**Product Use:** Cooling system treatment.  
**Manufacturer/Supplier:** The Penray Companies, Inc.  
440 Denniston Ct.  
Wheeling, IL 60090  
**Phone Number:** 847-459-5000  
**Emergency Phone:** Adverse Medical: 1-800-752-7869  
CHEMTREC 1-800-424-9300  
CHEMTREC International 703-527-3887 (collect)  
CANUTEC (Canada only) 613-996-666, or \*666 on cellular phone  
**Date of Preparation:** April 11, 2014

### Section 2: HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

WARNING

IRRITATING TO EYES. MAY CAUSE SKIN IRRITATION.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** Irritating to eyes.

**Skin:** May cause skin irritation.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation and dermatitis.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Medical Conditions Aggravated By Exposure:** Because of its irritating properties, product may aggravate preexisting skin, eye, and respiratory conditions.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Boric acid, sodium salt, tetrahydrate	10555-76-7	5 - 10
Sodium nitrite	7632-00-0	3 - 7
Silicic acid, sodium salt	1344-09-8	1 - 2
Sodium nitrate	7631-99-4	0.5 - 1.5

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### Section 4: FIRST AID MEASURES

- 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.
- Skin Contact:** In case of contact, immediately flush skin with plenty of water. Call a physician if irritation develops and persists.
- Inhalation:** If inhaled, remove person to fresh air and keep them in a position comfortable for breathing. Get medical attention if condition worsens.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice immediately.
- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately.

### Section 5: FIRE FIGHTING MEASURES

- Flammability:** Not flammable by WHMIS criteria.
- Means of Extinction:**
- Suitable Extinguishing Media:** Treat for surrounding material.
  - Unsuitable Extinguishing Media:** Not available.
- Products of Combustion:** May include, and are not limited to: oxides of carbon, oxides of nitrogen.
- Explosion Data:**
- Sensitivity to Mechanical Impact:** Not available.
  - Sensitivity to Static Discharge:** Not available.
- Protection of Firefighters:** Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

### Section 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
- Environmental Precautions:** Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.
- Methods 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 Clean-Up:** Scoop up material and place in a disposal container. Provide ventilation.
- Other Information:** Not available.

### Section 7: HANDLING AND STORAGE

- Handling:**  
Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapour/spray. Handle and open container with care. Launder contaminated clothing before reuse. When using do not eat or drink. Wash hands before eating, drinking, or smoking.
- Storage:**  
Keep out of the reach of children. Keep container tightly closed. Keep locked up.

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### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines

Ingredient	Exposure Limits ACGIH-TLV
Boric acid, sodium salt, tetrahydrate	Not available.
Sodium nitrite	Not available.
Silicic acid, sodium salt	Not available.
Sodium nitrate	Not available.

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

#### Personal Protective Equipment:

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

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

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear.
<b>Colour:</b>	Pink.
<b>Odour:</b>	No odour.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	<11.5
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	100 - 102 °C (212 - 215 °F)
<b>Flash Point:</b>	None.
<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.
<b>Vapour Pressure:</b>	Not available.
<b>Vapour Density:</b>	Not available.
<b>Specific Gravity:</b>	1.095 - 1.131
<b>Solubility in Water:</b>	Not available.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.

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**Percent Volatile, wt. %:** Not available.

**VOC content, wt. %:** Not available.

### Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions.

**Conditions of Reactivity:** Incompatible materials.

**Incompatible Materials:** Strong reducing agents. Organic materials. Acids.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon, oxides of nitrogen.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

### Section 11: TOXICOLOGY INFORMATION

#### EFFECTS OF ACUTE EXPOSURE

##### Component Analysis

Ingredient	LD <sub>50</sub> (oral)	LC <sub>50</sub>
Boric acid, sodium salt, tetrahydrate	Not available.	Not available.
Sodium nitrite	180 mg/kg, rat	5.5 mg/L 4hr, rat
Silicic acid, sodium salt	1153 mg/kg, rat	Not available.
Sodium nitrate	1267 mg/kg, rat	Not available.

**Eye:** Irritating to eyes. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation.

#### EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by WHMIS criteria.

**Carcinogenicity:** Not hazardous by WHMIS criteria.

##### Ingredient

##### Chemical Listed as Carcinogen or Potential Carcinogen \*

Boric acid, sodium salt, tetrahydrate	Not listed.
Sodium nitrite	Not listed.
Silicic acid, sodium salt	Not listed.
Sodium nitrate	Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS criteria.

**Reproductive Effects:** Not hazardous by WHMIS criteria.

##### Developmental Effects:

**Teratogenicity:** Not hazardous by WHMIS criteria.

**Embryotoxicity:** Not hazardous by WHMIS criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS criteria.

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**Skin Sensitization:** Not hazardous by WHMIS criteria.

**Toxicologically Synergistic Materials:** Not available.

### Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment.

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

### Section 13: DISPOSAL CONSIDERATIONS

#### Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

### Section 14: TRANSPORTATION INFORMATION

#### TDG Classification

Not regulated

### Section 15: REGULATORY INFORMATION

#### Federal Regulations

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

#### Global Inventories

##### Ingredient

Boric acid, sodium salt, tetrahydrate  
Sodium nitrite  
Silicic acid, sodium salt  
Sodium nitrate

**Canada  
DSL/NDSL**  
No.  
DSL  
DSL  
DSL

#### HMIS - Hazardous Materials Identification System

Health - 2

Flammability - 0

Physical Hazard - 0

PPE - B

#### NFPA - National Fire Protection Association:

Health - 2

Fire - 0

Reactivity - 0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

#### WHMIS Classification(s):

Class D2B - Skin/Eye Irritant

#### WHMIS Hazard Symbols:



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### SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

**ACGIH (G)** American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

### Section 16: OTHER INFORMATION

#### Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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