PENRAY 2792ND TOTE

Safety Data Sheet

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

Date of issue: 02/24/2014 Revision date: 02/24/2014 Version: 1.0

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

1.1. Product identifier

Product name : PENRAY 2792ND TOTE

Product code : 2792NDIST

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

Use of the substance/mixture : Antifreeze Corrosion Inhibitor

1.3. Details of the supplier of the safety data sheet

The Penray Companies, Inc.
440 Denniston Ct.
60090 Wheeling
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

Acute toxicity 4 (Oral)
Skin corrosion 1B
Serious eye damage 1
Skin sensitization 1
Reproductive toxicity 2

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child.

Precautionary statements (GHS-US) : Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe gas/fumes/vapor/spray. Wear protective gloves/protective clothing/eye protection/face protection. 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. If exposed or concerned: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. 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)

5% of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Sodium nitrite	(CAS No) 7632-00-0	10 - 30	Acute Tox. 3 (Oral)
Boric acid, disodium salt, pentahydrate	(CAS No) 12179-04-3	7 - 13	Repr. 2

Name	Product identifier	%	GHS-US classification
Sodium nitrate	(CAS No) 7631-99-4	3 - 7	Ox. Sol. 3 Acute Tox. 4 (Oral) Eye Irrit. 2A
Sodium hydroxide	(CAS No) 1310-73-2	< 0.1	Skin Corr. 1A
Sodium silicate	(CAS No) 1344-09-8	1 - 5	Acute Tox. 4 (Oral) Skin Irrit. 2 Eye Dam. 1 STOT SE 3
Tolyltriazole, sodium salt	(CAS No) 64665-57-2	1 - 5	Acute Tox. 4 (Oral) Skin Corr. 1B
Sodium mercaptobenzothiazole	(CAS No) 2492-26-4	1 - 5	Met. Corr. 1 Skin Corr. 1C Eye Dam. 1 Skin Sens. 1
Methyl alcohol	(CAS No) 67-56-1	< 0.1	Flam. Liq. 2 Acute Tox. 3 (Oral, Dermal, Inhalation) Eye Irrit. 2A STOT SE 1
Cobalt	(CAS No) 7440-48-4	< 0.1	Resp. Sens. 1 Skin Sens. 1 Carc. 2
Cadmium	(CAS No) 7440-43-9	< 0.1	Acute Tox. 1 (Inhalation) Muta. 2 Carc. 1A Repr. 2 STOT RE 1
Arsenic	(CAS No) 7440-38-2	< 0.1	Acute Tox. 3 (Oral, Inhalation) Carc. 1A
Nickel	(CAS No) 7440-02-0	< 0.1	Skin Sens. 1 Carc. 2 STOT RE 1
Mercury	(CAS No) 7439-97-6	< 0.1	Acute Tox. 1 (Inhalation) Repr. 1B STOT RE 1
Lead	(CAS No) 7439-92-1	< 0.1	Carc. 2 Repr. 1A STOT RE 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, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical advice/attention.

First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Get immediate medical advice/attention.

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. Get medical attention immediately.

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. Immediately call a poison center or doctor/physician.

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

Symptoms/injuries after inhalation : Irritating to respiratory system.

Symptoms/injuries after skin contact : Causes severe skin burns. Redness. Pain. Blisters. May cause sensitisation by skin contact.

Symptoms/injuries after eye contact : Causes serious eye damage. May cause serious chemical burns. Redness, pain, tearing.

Symptoms/injuries after ingestion : 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. Avoid contact with skin and eyes.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe gas/fumes/vapor/spray. Do not swallow. Handle and open container with care. Provide adequate ventilation. Do not eat, drink or smoke when using this product.

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

Boric acid, disodium salt, pentahydrate (12179-04-3)		
USA ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
USA ACGIH	ACGIH STEL (mg/m³)	6 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	10 mg/m³

Sodium hydroxide (1310-73-2)		
USA ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³

Methyl alcohol (67-56-1)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	250 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

Cobalt (7440-48-4)		
USA ACGIH	ACGIH TWA (mg/m³)	0.02 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³

Cadmium (7440-43-9)		
USA ACGIH	ACGIH TWA (mg/m³)	0.01 mg/m³
USA ACGIH	ACGIH TWA (mg/m³)	0.002 mg/m³ (resp)
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³ (fume)
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.2 mg/m³ (dust)
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 µg/m³
USA OSHA	OSHA PEL (Ceiling) (mg/m³)	0.6 mg/m³

Arsenic (7440-38-2)		
USA ACGIH	ACGIH TWA (mg/m³)	0.01 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.01 mg/m³

Nickel (7440-02-0)		
USA ACGIH	ACGIH TWA (mg/m³)	1.5 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³

Mercury (7439-97-6)		
USA ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.05 mg/m³ (vapor)
USA OSHA	OSHA PEL (Ceiling) (mg/m³)	0.1 mg/m³

Lead (7439-92-1)		
USA ACGIH	ACGIH TWA (mg/m³)	0.05 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	50 µg/m³

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 protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

Skin and body protection : Wear suitable protective clothing, including appropriate boots, boot covers, overshoes, etc., as may be appropriate.

Respiratory protection : A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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 : Clear.

Colour : Colorless.

Odour : Odorless.

Odour threshold : No data available.

pH : 12.2 - 12.5

Relative evaporation rate (butylacetate=1) : No data available.

Melting point : No data available.

Freezing point : No data available.

Boiling point : 100 - 102 °C (212 - 215 °F)

Flash point : None.

Self ignition temperature : No data available.

Decomposition temperature : No data available.

Flammability (solid, gas) : Not flammable.

Vapour pressure : No data available.

Relative vapour density at 20 °C : No data available.

Relative density : 1.29 - 1.34

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

Heat. Incompatible materials.

10.5. Incompatible materials

None known.

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 : Harmful if swallowed.

LD50 oral rat	965 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 20 mg/l/4h

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

Boric acid, disodium salt, pentahydrate (12179-04-3)	
LD50 oral rat	2403 mg/kg

Sodium nitrate (7631-99-4)	
LD50 oral rat	1267 mg/kg

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg

Sodium silicate (1344-09-8)	
LD50 oral rat	1153 mg/kg
LD50 dermal rabbit	> 4640 mg/kg

Tolyltriazole, sodium salt (64665-57-2)	
LD50 oral rat	735 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

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

Methyl alcohol (67-56-1)	
LD50 oral rat	5628 mg/kg
LC50 inhalation rat (ppm)	64000 ppm/4h

Cobalt (7440-48-4)	
LD50 oral rat	6170 mg/kg
LC50 inhalation rat (mg/l)	> 10 mg/l/1h

Cadmium (7440-43-9)	
LD50 oral rat	2330 mg/kg
LC50 inhalation rat (mg/l)	25 mg/m³/30 min

Arsenic (7440-38-2)	
LD50 oral rat	763 mg/kg
ATE (dust,mist)	3 mg/l/4h

Nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg

Mercury (7439-97-6)	
LC50 inhalation rat (mg/l)	19 mg/l/4 h

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Causes serious eye damage.
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.

Cobalt (7440-48-4)	
IARC group	2B

Cadmium (7440-43-9)	
IARC group	1
National Toxicity Program (NTP) Status	2
	In OSHA Specifically Regulated Carcinogen list

Arsenic (7440-38-2)	
IARC group	1
National Toxicity Program (NTP) Status	2

Nickel (7440-02-0)	
IARC group	2B
National Toxicity Program (NTP) Status	3

Mercury (7439-97-6)	
IARC group	3

Lead (7439-92-1)	
IARC group	2A
National Toxicity Program (NTP) Status	3

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
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 : Irritating to respiratory system.
Symptoms/injuries after skin contact : Causes severe skin burns. Redness. Pain. Blisters. May cause sensitisation by skin contact.
Symptoms/injuries after eye contact : Causes serious eye damage. May cause serious chemical burns. Redness, pain, tearing.
Symptoms/injuries after ingestion : Harmful if swallowed. May cause stomach distress, nausea or vomiting.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

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

12.2. Persistence and degradability

Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

UN-No. : UN1760

14.2. UN proper shipping name

Proper Shipping Name : Corrosive liquids, n.o.s. (Sodium Nitrate)

Department of Transportation Hazard Classes : 8

Hazard labels :

Packing group : II

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

Sodium nitrite (7632-00-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory 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 %

Sodium nitrate (7631-99-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium hydroxide (1310-73-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium silicate (1344-09-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Tolyltriazole, sodium salt (64665-57-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium mercaptobenzothiazole (2492-26-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Methyl alcohol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %

Cobalt (7440-48-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

Cadmium (7440-43-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

Arsenic (7440-38-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

Nickel (7440-02-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

Mercury (7439-97-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory 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 %

Lead (7439-92-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State regulations

State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC (I)	**International Agency for Research on Cancer.**
	1 - Carcinogenic to humans; 2A - Probably carcinogenic to humans; 2B - Possibly carcinogenic to humans; 3 - Not classifiable; 4 - Probably not carcinogenic to humans.
NTP (N)	**National Toxicology Program.**
	1 - Evidence of Carcinogenicity; 2 - Known Human Carcinogens; 3 - Reasonably anticipated to be Human Carcinogen; 4 - Substances delisted from report on Carcinogens; 5 - Twelfth Report - Items under consideration.

SECTION 16: Other information

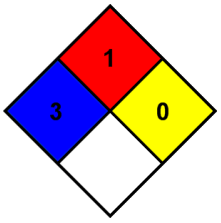
Indication of changes : None.

Other information : None.

NFPA health hazard : 3

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