

1. IDENTIFICATION

Trade Name: 4949 Cooling Water Treatment

Chemical Name & Synonyms: Proprietary Cooling Water Treatment Blend

UN/ID No: **UN1760**

2. HAZARDS IDENTIFICATION

Classification: **Corrosive**

Signal Word: **DANGER**

Label Elements:



Physical Hazards:

Corrosive to Metals

Category 1

Hazard Statements:

H302 Harmful if swallowed.

H313 May be harmful in contact with skin.

H319 Causes serious eye irritation.

H333 May be harmful if inhaled.

H333 May be harmful if inhaled.

Precautionary Statements:

P233 Keep container tightly closed

P234 Keep only in original container

P262 Do not get in eyes or on skin or on clothing

P270 Do not eat or drink or smoke when using this product

P280: Wear protective gloves/protective clothing/eye protection/face protection.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|--|------------|----------|
| 2-Phosphono-1,2,4-Butanetricarboxylic Acid | 37971-36-1 | 5-10% |
| Sodium HEDP | 29329-71-3 | 1-5% |

4. First Aid Measures

General Advice:

P101: If medical advice/attention is needed; have product container this SDS, and label at hand

Eye Contact:

P305/P351/P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337/P313 If eye irritation persists: get medical advice/attention.

Skin Contact:

P303/P361/P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P333/P313 If skin irritation or rash occurs: Get medical attention.

P363 Wash contaminated clothing before reuse.

Inhalation:

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing

P342/P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/911

Ingestion:

P310 Immediately call a POISON CENTER/doctor/911

P301/P330/P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Note to Physicians: Treat symptomatically.

Self-protection of the First Aider: None specific. General healthcare PPE is appropriate

5. Fire-fighting Measures

Flammable Properties: Non-flammable

Explosive Properties: N/A

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable Extinguishing Media: None Known

Specific Hazards Arising from the Chemical: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO_x) Sulphur oxides Oxides of phosphorus

Protective Equipment and Precautions for Firefighters:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode

6. Accidental Release Measures

Personal Precautions: Routine PPE for any spill, no unique requirement.

Environmental Precautions: If not diluted, this product may become a hazardous waste as designated by the EPA under authority of the Resource Conservation and Recovery Act (RCRA)

Methods for Cleaning Up: Stop leak if safe to do so. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations {see section 13}. For large spills, dike material or otherwise

contain material to ensure runoff does not reach a waterway. Flush away traces with water.

Other Information: This product is intended to be used in open recirculating cooling water treatment and discharged to sanitary sewer in its diluted state in tower bleedoff water. Concentrated product may be diluted to a similar working concentration and flushed to sewer or soaked up with absorbent material and landfilled in accordance with local, state, and federal regulations.

7. Handling and Storage

Advice on Safe Handling: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Use only with adequate ventilation.

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Incompatible Materials: See Section 10.

8. Exposure Controls / Personal Protection

Components: 2-Phosphono-1.2.4-Butanetricarboxylic Acid

CAS-No. 37971-36-1

Form of exposure: TWA (Aerosol.)

Pennissible concentration: 10mg/m³

Basis: AIHAWHEEL

Exposure Guidelines N/A

Engineering Controls: Ensure adequate ventilation, especially in confined areas

Personal protective equipment (PPE) Wear suitable industrial protective clothing

Eye/Face Protection: Industrial Safety Glasses and/or face shield

Body Protection: P280 Wear protective gloves/protective clothing.

General Hygiene Considerations: P270 Do not eat or drink or smoke when using this product
P363 Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance: Clear liquid with slight inorganic odor

pH: 2.0 – 2.5

Specific Gravity: 1.1

Molecular Weight: Mixture

Water Solubility: Completely soluble

Melt/FreezePoint: Not determined

Boiling Point: Not determined

Flammability N/A

Flash Point: N/A

Vapor density: N/A

10. Stability and Reactivity

Stability: Stable under normal conditions of use and storage

Conditions to Avoid: None known

Incompatible Materials: None Known

Hazardous Decomposition Products: Decomposition products may include the following materials:

Carbon oxides
nitrogen oxides (NO_x)
Sulphur oxides
Oxides of phosphorus

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

11. Toxicological Information

Information on likely routes of; Inhalation, Eye contact, Skin contact exposure

Potential Health Effects

Eyes Health injuries are not known or expected under normal use.

Skin Health injuries are not known or expected under normal use.

Ingestion Health injuries are not known or expected under normal use.

Inhalation Health injuries are not known or expected under normal use.

Chronic Exposure Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact No symptoms known or expected.

Skin contact No symptoms known or expected.

Ingestion No symptoms known or expected.

Inhalation No symptoms known or expected.

Toxicity

Product

Acute oral toxicity Acute toxicity estimate: > 5,000 mg/kg

Acute inhalation toxicity no data available

Acute dermal toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation Species: rabbit GLP: yes Test substance: Product

Respiratory or skin sensitization **Carcinogenicity** no data available

Reproductive effects no data available

Genn cell mutagenicity no data available

Teratogenicity no data available

STOT • single exposure no data available

STOT • repeated exposure no data available

Aspiration toxicity no data available

Components

Acute dermal toxicity Sodium HEDP L050 rabbit: > 7,940 mg/kg

12. Ecological Information

Product

Toxicity to fish LC50 Fathead Minnow: 5,018 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Fathead Minnow: 3,600 mg/l

Exposure time: 96 hrs

Test substance: Product

LC50 Rainbow Trout: 2,324 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Rainbow Trout: 1,800 mg/l

Exposure time: 96 hrs

Test substance: Product

Toxicity to daphnia and other

aquatic invertebrates EC50 Ceriodaphnia dubia: 1,544 mg/l

Exposure time: 48 hrs

Test substance: Product

LC50 Ceriodaphnia dubia: 1,996 mg/l

Exposure time: 48 hrs

Test substance: Product

NOEC Ceriodaphnia dubia: 1,080 mg/l

Exposure time: 48 hrs

Test substance: Product

Components

Toxicity to algae SodiumHEDP
 EC50 Selenastrum capricomutum (green algae): 3 mg/l
 Exposure time: 96 h

NOEC Selenastrum sp.: 13 mg/l
 Exposure time: 14 d

Components

Toxicity to fish (Chronic toxicity) SodiumHEDP
 LC50: 180 mg/l
 Exposure time: 14 d
 Species: Oncorhynchus mytkiss (rainbow trout)

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) SodiumHEDP
 NOEC: 6.75 mg/l
 Exposure time: 28 d
 Species: Oaphnia magna (Water flea)

Persistence and degradability Total Organic Carbon (TOC): 8,500 mg/l

Chemical Oxygen Demand (COD): 160,000 mg/l

Biochemical Oxygen Demand (BOD):

| Incubation Period | Value | Test | Descriptor |
|-------------------|---------|------|------------|
| 5 d | < 1,000 | mg/l | |

Mobility

no data available

Bioaccumulative potential

no data available

Other Information

no data available

13. Disposal Considerations

Disposal methods

Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations

Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information (USDOT):

Proper shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Hazard Class: Corrosive (8)
UN/ID No UN3265
Packing Group III
Description: N/A



15. Regulatory Information

EPCRA -Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

SARA 302

SARA 313

California Prop 65

No SARA Hazards

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS:

TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (OSI).

AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical

Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCs).

KOREA

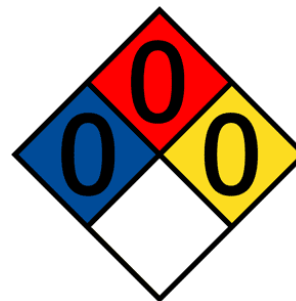
All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals

list (ECL)

Taiwan

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (EC61).

National Fire Protection Association (NFPA) Ratings:



NSF Certification: N/A

16. Other Information

Disclaimer: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.