



SAFETY DATA SHEET

PROTEX COOLING SYSTEM CLEANER 94600

SECTION 1- PRODUCT IDENTIFICATION


PRODUCT NAME : PROTEX COOLING SYSTEM CLEANER 94600
SYNONYMS : Product is a mixture: No synonyms are available.
PRODUCT USE : Moderately Alkaline Material
SUPPLIER : BARDAHL MANUFACTURING CORP.
SUPPLIER'S ADDRESS : 1400 NW 52ND ST, SEATTLE, WA 98107 (888) 227-3245
EMERGENCY RESPONSE PHONE NUMBER : PERS: 1-800-633-8253

SECTION 2 – HAZARD IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS U.S. – CLASSIFICATION : H302 Harmful if swallowed.
H315 Causes skin irritation
H319 Causes serious eye irritation

LABEL ELEMENTS : **GHS – US HAZARD PICTOGRAMS** The product is classified and labeled according to the Globally Harmonized System (GHS).

HAZARD PICTOGRAMS : 

SIGNAL WORD : WARNING

HAZARD STATEMENTS (GHS-US) : H302 Harmful if swallowed.
: H315 Causes skin irritation.
: H319 Causes serious eye irritation.

PRECAUTIONARY STATEMENTS (GHS-US) : P101 If medical advice is needed, have product container or label at hand.
: P102 Keep out of reach of children.
: P103 Read label before use.
: P264 Wash skin and contaminated clothing thoroughly after handling.
: P270 Do not eat, drink or smoke when using this product.
: P280 Wear suitable protective gloves/protective clothing/eye protection/face protection.
: P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
: P302+P352 : IF ON SKIN: Wash with plenty of soap and water.
: P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
: P332+P313 If skin irritation occurs: Get medical advice/attention.
: P337+P313 If eye irritation persists: Get medical advice/attention.
: P501 Dispose of contents/container in accordance with local/regional/national/international regulations

OSHA HAZARDS : Not applicable.
TARGET ORGANS : Not applicable.

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CLASSIFICATION SYSTEM : NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
NFPA RATINGS (SCALE 0-4) : Health = 2, Fire = 0, Reactivity = 0
HMIS RATINGS (SCALE 0-5) : Health = 2, Fire = 0, Reactivity = 0

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTIC : Mixtures
DESCRIPTION : Mixture of the substances listed below with nonhazardous additions.

COMPONENT	PERCENT	CAS #	EC #	GHS CLASS
Isopropanol (Isopropyl alcohol)	5-10	67-63-0	200-661-7	Eye Irrit Cat 2, Flam Liq Cat 2 STOT SE Cat 3
Tetrapotassium Pyrophosphate	1-5	7320-34-5	230-785-7	Eye Irrit Cat 2
Methyl-oxirane polymer with oxirane	0.1-1.0	9003-11-6	N/A	No need for classification according to GHS criteria for this product.

Irrit = Irritation, Cor = Corrosive, Dam = Damage, Cat = Category, Tox = Toxic, STOT = Specific Target Organ Toxicity.

SECTION 4 – FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. Show the label where possible.

EYE CONTACT : Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Remove contact lenses, if present and easy to do so. Continue rinsing. If irritation persists, get immediate medical attention.

SKIN CONTACT : Remove contaminated clothing and shoes. Wash affected skin area with soap and water. If irritation persists, get immediate medical attention.

SWALLOWING (INGESTION) : If ingested, dilute swallowed material by drinking water. **DO NOT INDUCE VOMITING.** If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious person. Get immediate medical attention.

INHALATION : Remove to fresh air. Get immediate medical attention.

OTHER INSTRUCTIONS : Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Dry chemical, foam, water or carbon dioxide.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS : In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved, positive pressure, self-contained breathing apparatus (SCUBA) and full protective clothing. Evacuate all non-essential personnel from the danger area.

UNUSUAL FIRE AND EXPLOSION HAZARDS : No further relevant information is available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & : Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.

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EMERGENCY PROCEDURES

- ENVIRONMENTAL PROCEDURES** : Keep spilled material away from sewage/drainage systems and waterways.
- METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP** : All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

- PRECAUTIONS FOR SAFE HANDLING** : Use with adequate ventilation. Wear proper protective equipment. Do not mix with water or acids without proper dilution and agitation to prevent a potentially violent reaction.
- CONDITIONS FOR SAFE STORAGE** : Store in closed, properly labeled containers. Protect containers from heat, physical damage, ignition sources and incompatible materials. Have emergency equipment for fires and spills readily available.



SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

- TLV (THRESHOLD LIMIT VALUE)** : The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

COMPONENT	OSHA PEL – TWA	ACGIH – TLV	ACGIH – STEL
Isopropanol (Isopropyl alcohol)	400 ppm	200 ppm	400 ppm
Tetrapotassium Pyrophosphate	Not Established	Not Established	Not Established
Methyl-oxirane polymer with oxirane	Not Established	Not Established	Not Established

- EYE PROTECTION** : Wear chemical splash goggles or face shield.
- SKIN PROTECTION** : Minimize contact with product. Wear chemical resistant coveralls, boots, gloves, apron and/or suitable long-sleeved clothing.
- RESPIRATORY PROTECTION** : In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.
- VENTILATION** : Ensure adequate ventilation.
- ADDITIONAL MEASURES** : Emergency eyewash and safety shower facilities should be available in the immediate work area.
- REQUIRED WORK/HYGIENE** : Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- APPEARANCE** : Clear liquid with mild odor.
- ODOR** : Mild odor
- ODOR THRESHOLD** : Not available
- PH** : 10.5 ± 0.5 As Is

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MELTING POINT/FREEZING POINT	: Not available
BOILING POINT	: Approx. 212° F.
FLASH POINT	: Non flammable, non combustible
EVAPORATION RATE	: Not available
FLAMMABILITY	: Non flammable-Non combustible
LOWER FLAMMABILITY LIMIT	: Not available
UPPER FLAMMABILITY LIMIT	: Not available
VAPOR PRESSURE	: Not available
VAPOR DENSITY (AIR=1)	: Not available
RELATIVE DENSITY	: 1.025
SOLUBILITY IN WATER	: Soluble in water
PARTITION COEFFICIENT n-OCTANOL/WATER	: Not available
AUTOIGNITION TEMPERATURE	: Not available
DECOMPOSITION TEMPERATURE	: Not available

SECTION 10 – STABILITY AND REACTIVITY

STABILITY	: Stable under recommended storage conditions.
HAZARDOUS CONDITIONS TO AVOID	: No decomposition if used according to specifications
INCOMPATIBLE MATERIALS	: Keep away from strong acids.
HAZARDOUS DECOMPOSITION PRODUCTS	: No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION ACUTE TOXICITY	: Isopropanol (Isopropyl Alcohol) LD50 Oral (rat): 5045 mg/kg. LD50 Dermal (rabbit): 12,800 mg/kg. LC50 Inhalation (rat) 8hr: 16,000 mg/kg.
OTHER INFORMATION EYES	: Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause transient corneal injury
OTHER INFORMATION INGESTION	: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea.
OTHER INFORMATION INHALATION	: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Causes upper respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness.
OTHER INFORMATION SKIN	: May cause irritation with pain and stinging, especially if the skin is abraded. Isopropanol has a low potential to cause allergic skin reactions; however, rare cases of allergic contact dermatitis have been reported.
STOT SINGLE EXPOSURE CARCINOGENICITY	: Inhalation - May cause drowsiness or dizziness. - Central Nervous System. : IARC: Group 3: Not classifiable as to its carcinogenicity to humans. No component of this product, present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH, NTP or OSHA.
TOXICOLOGICAL INFORMATION ACUTE TOXICITY	: Tetrapotassium Pyrophosphate : Oral - rat LD50: > 2980 mg/kg; slightly toxic

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Dermal - rabbit LD50: > 7940 mg/kg; practically nontoxic
Eye Irritation - rabbit: 11.1/110.0; moderately irritating
Skin Irritation - rabbit: 0.5/8.0 (24-hr exposure); practically nonirritating.

TOXICOLOGICAL INFORMATION : **Methyl-oxirane polymer with oxirane**
ACUTE ORAL TOXICITY : LD50 Oral (rat): > 2000 mg/kg, LD50 Dermal (rabbit): 10,200 mg/kg
SKIN AND EYE IRRITATION : Draize Test: Eyes: Non irritant, Skin: Non irritant.
SENSITISATION : Skin sensitizing effects were not observed in animal studies.
SYMPTOMS OF EXPOSURE : No significant symptoms are expected due to the non-classification of the product.

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION : **Isopropanol**
ACUTE FISH TOXICITY : LC50 / 96 hr: Pimephales promelas: 9,640 mg/L.
TOXICITY TO DAPHNIA : EC50 / 24 h / Water Flea - 5,102 mg/L.
TOXICITY TO PLANTS : EC50 / 72 hours Desmodemus subspicatus > 2,000 mg/L.
MOBILITY : This material is expected to have very high mobility in soil. It does not absorb to most soil types.
PERSISTENCE AND DEGRADABILITY : No data available.
BIOACCUMULATIVE POTENTIAL : No data available.

ECOLOGICAL INFORMATION : **Tetrapotassium Pyrophosphate**
ECOTOXICITY : 48-hr EC50 Daphnia magna: > 100 mg/l, Practically Nontoxic
96-hr LC50 Mysid Shrimp > 100 mg/l, Practically Nontoxic
96-hr LC50 Rainbow trout: > 100 mg/l, Practically Nontoxic.
ENVIRONMENTAL FATE : Phosphates: Inorganic phosphates, including this product, at high concentrations in the environment have the potential to cause eutrophication in aquatic systems. This condition is characterized by excessive algal growth, and subsequent decreases in oxygen levels. In general, proper use and disposal of this product should pose no adverse ecological risk.

ECOLOGICAL INFORMATION : **Methyl-oxirane polymer with oxirane (25R2)**
ECOTOXICITY : Toxicity to fish: LC50 (96 h) 105 mg/l, Oncorhynchus mykiss
Aquatic invertebrates: EC50 (48 h) 1,033 mg/l, Daphnia magna
Aquatic plants: EC50 (72 h) 370 mg/l, algae
PERSISTENCE AND BIODEGRADABILITY : Assessment: Readily biodegradable (according to OECD criteria)
MOBILITY : The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is possible.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL : This product must be disposed of in accordance with Federal, state and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.

SECTION 14 – TRANSPORTATION INFORMATION

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DOT/IMDG/ IATA PROPER SHIPPING NAME : Not Hazardous
HAZARD CLASS AND LABEL : Not Applicable.
UN NUMBER : Not Applicable.
PACKAGING GROUP : Not Applicable.
EPA REPORTABLE QUANTITY (RQ) : Not Applicable.
MARINE POLLUTANT : Not listed.
EMERGENCY RESPONSE GUIDE : Not Applicable.

SECTION 15 – REGULATORY INFORMATION

U.N. GHS CLASSIFICATION & LABELING INFORMATION: See Section 2 for GHS Hazard Information.

U.S. FEDERAL REGULATORY INFORMATION:

LISTED CARCINOGEN : Not listed.
TSCA STATUS : The ingredients of this product are listed in TSCA inventory (40CFR 710.)
SARA SECTION 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA SECTION 312 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 312.
SARA SECTION 313 : 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.
NFPA HEALTH : 2
NFPA FLAMMABILITY : 0
NFPA REACTIVITY : 0

EUROPEAN UNION REGULATORY INFORMATION:

EC CLASSIFICATION : Non Hazardous
DSD/DPD RISK (R) PHRASES : R22: Harmful if swallowed.
R36/38: Irritating to eyes and skin.
DSD/DPD SAFETY (S) PHRASES : S1/2: Keep locked up and out of reach of children.
S24/25: Avoid contact with eyes and skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/S37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accidents or if you feel unwell, seek medical advice immediately. Show label where possible.
S61: Avoid release to the environment.
S62: If swallowed, do not induce vomiting.
S64: If swallowed, rinse mouth with water if victim is conscious.
DSD/DPD HAZARD SYMBOL : Xi: Irritant



CANADIAN REGULATORY INFORMATION:

WHMIS CATEGORY : D2B: Materials that cause other toxic effects (TOXIC).



DOMESTIC SUBSTANCES LIST : Listed

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(DSL)

INGREDIENT DISCLOSURE LIST : Listed

SECTION 16 – OTHER INFORMATION

DISCLAIMER : The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Bardahl Corp. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act.

EINECS : European Inventory of Existing Commercial Chemical Substances

IMDG : International Maritime Code for Dangerous Goods

IARC : International Agency for Research on Cancer

IATA : International Air Transportation Association

ACGIH : American Conference of Governmental Industrial Hygienists

NFPA : National Fire Protection Association (USA)

NTP : National Toxicology Program

SARA : Superfund Amendments and Reauthorization Act

TSCA : Toxic Substances Control Act

HMIS : Hazardous Materials Identification System (USA)

WHMIS : Workplace Hazardous Materials Information System

LC50 : Lethal concentration, 50 percent

LD50 : Lethal dose, 50 percent

STOT : Systemic Target Organ Toxicity

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