

Section 1. Product and Company Identification

**Product Name** MIL-A-53009 Antifreeze Extender  
**CAS Number** Mixture

**Parchem - fine & specialty chemicals**

**415 Huguenot Street**

**New Rochelle, NY 10801**

 **(914) 654-6800**  **(914) 654-6899**

 **parchem.com**

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EMERGENCY RESPONSE NUMBER  
CHEMTEL

Toll Free US & Canada: 1 (800) 255-3924

All other Origins: 1 (813) 248-0585

Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**

**GHS Hazard Classification**

**Physical Hazards**

Flammable Liquids: No hazard statement

**Health Hazards**

Acute Toxicity (Oral) - Category 4 - Harmful if swallowed, in contact with skin, inhaled

Skin Corrosion/Irritation - Category 2 - Causes skin irritation

Serious Eye Damage/Irritation - Category 2A - Causes eye irritation

Aspiration Hazard - Category 1 - May be fatal if swallowed and enters airways

**GHS Label Elements**

**Pictograms:**



**Signal word:** WARNING

**Hazard and precautionary statements**

**Hazard Statements**

H303 H313 H333: May be harmful if swallowed, in contact with skin or if inhaled

**Precautionary Statements**

P101+102+103: If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use.

P202+270+280+281: Do not handle until all safety precautions have been read and understood.

Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.



P501: Dispose of contents/container: Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**Total VOC's:** 0%

Section 3. Composition / Information on Ingredients

**Common Name** MIL-A-53009 Antifreeze Extender  
**CAS Number** Mixture

COMPONENT	CAS NUMBER	CONCENTRATION
Sodium Metaborate	35585-58-1	29% ± 0.30%
Potassium Silicate	1312-76-1	4.6% ± 0.20%
Sodium Mercaptobenzothiazole	2492-26-4	3% ± 0.15%

Section 4. First Aid Measures

**Inhalation:** Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Keep person warm and at rest. Treat symptomatically and supportively. Seek medical attention immediately. Qualified medical personnel should consider administering oxygen.

**Ingestion:** Give large amounts of fresh water or milk immediately. Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head below hips to prevent aspiration. Treat symptomatically and supportively. Seek medical attention immediately.

**Eyes:** Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

**Skin (Dermal):** Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

**Note to Physician:** All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred

Section 5. Firefighting Measures

**General Fire Hazards:** Water based blend - Non Flammable

**Auto-ignition Temperature:** None - Water based material



**Extinguishing Media:** Determined by surrounding material. In case of fire, use water fog, dry chemical, CO<sub>2</sub>, or "alcohol" foam.

**Special Firefighting Procedures:** Spilled product on ground may be slippery.

**Unusual Fire and Explosion Hazards:** Containers may explode from internal pressure if confined to fire. Cool with water spray.

#### Section 6. Accidental Release Measures

**Spill Procedures:** Wear appropriate personal protective equipment before approaching spill site. For small spills, dilute with water to sewer if allowed by local and state regulations. If unable to wash product with water, absorb with inert material (sand or other approved material) and dispose of in accordance with applicable regulations.

**Waste Disposal:** Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**RCRA Status:** If discarded in its purchased form, it is not a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40 CFR 261.20-24).

#### Section 7. Handling and Storage

**Storage:** Keep in a tightly closed container, stored in a cool, dry, ventilated area below 44°C (110°F). Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Drum must not be washed out or used for other purposes.

**Handling:** Avoid contact with eyes, skin and clothing. Do not inhale vapors and fumes. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally. For industrial use only.

#### Section 8. Exposure Controls / Personal Protection

##### Occupational Exposure Limits

Hazardous Ingredient	PEL	TLV-TWA
Sodium Metaborate (Na <sub>2</sub> BO <sub>4</sub> · 8H <sub>2</sub> O)	None Established	None Established
Potassium Silicate	None Established	None Established
Sodium Mercaptobenzothiazole	None Established	None Established



**Exposure Controls:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

#### Protective Clothing

**Eye/face protection:** Wear chemical goggles; face shield (if splashing is possible).

**Skin protection:** Chemical resistant, impermeable gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron or chemical suit and chemical resistant boots are recommended.

**Additional Measures:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

#### Section 9. Physical and Chemical Properties

**Boiling Point:** 220°F (104.4°C)

**Freezing Point:** 32°F

**Flash Point:** Non-flammable material

**Upper Flame Limit:** N/A

**Lower Flame Limit:** N/A

**Vapor Pressure:** ND

**Vapor Density (Air = 1):** > 1

**Specific Gravity:** 1.270 - 1.290

**pH:** 12.5 +/- 0.5

**Solubility in Water:** Complete

**Volatility Including Water:** 10.73 pounds per gallon

**Molecular Weight:** N/A

**Evaporation Rate:** Similar to Water

**Physical State:** Liquid

**Color:** Clear to Light Amber

**Odor:** Bland



Section 10. Stability and Reactivity

**Stability:** Stable

**Hazardous Decomposition:** Will not occur

**Incompatibility:** Oxidizers or Oxidizing Materials.

**Hazardous Reactions:** Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Section 11. Toxicological Information

**IARC:** No component of this product, present at levels greater than or equal to 0.1%, is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** 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:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

**Threshold Limit Value:** None Established for this Product

**OSHA PEL:** None Established for this Product

**Listed Carcinogen:** This product IS NOT listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA.

**Medical Condition Aggravated:** Existing dermatitis.

**Information on Acute Toxicological Effects**

**Oral:** Irritant to mucous membranes, esophagus and stomach. Abdominal pain, nausea, vomiting, general gastro-intestinal upset can be expected.

**Dermal:** Skin contact may aggravate existing dermatitis.

**Inhalation:** Respiratory tract irritant. High concentrations of vapor may cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, possibly with chest pain and coughing.

**Repeated Dose Toxicity:** No Data Available

**Skin Corrosion/Irritation:** Repeated and prolonged exposure to concentrated material may cause dermatitis.

**Serious Eye Damage/Irritation:** May cause mild to severe eye irritation

**Respiratory or Skin Sensitization:** No Data Available

**Mutagenicity**

**In Vitro:** No Data Available

**In Vivo:** No Data Available



Specified Substances	Information as provided by manufacturer
Potassium Phosphate	No Data Available

**Carcinogenicity:** Based on available data the classification criteria are not met. Not classified as hazardous.

**Reproductive Toxicity:** Based on available data the classification criteria are not met. Not classified as hazardous.

#### Specific target organ toxicity - single exposure

**General:** Liquid or vapors may be irritating to skin and eyes.

**Inhalation:** High concentrations of vapor may cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, possibly with chest pain and coughing. Headache, nausea, vomiting, dizziness, and drowsiness may occur.

**Eyes:** May cause mild to severe irritation experienced as discomfort or pain, excess blinking and tear production, possibly with marked redness and swelling of the conjunctiva.

**Skin:** Brief contact may cause slight irritation with itching and local redness. Prolonged contact, especially with concentrate, may cause more severe irritation, with discomfort or pain.

**Ingestion:** May cause headache, dizziness, in-coordination, nausea, vomiting, diarrhea, and general weakness.

**Specific Target Organ Toxicity - Repeated Exposure:** The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposure. This product may aggravate existing eye, skin, and respiratory conditions.

**Aspiration Hazard:** Droplets of the product aspirated into the lungs through ingestion or vomiting may cause chemical pneumonia.

**Other Adverse Effects:** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

#### Section 12. Ecological Information

##### Acute toxicity

**Fish:** Fish, practically nontoxic: LL/EL/IL50 > 100 mg/l. (based on similar products / components)

**Aquatic Invertebrates:** Daphnia magna, practically nontoxic: LL/EL/IL50 > 100 mg/l. (based on similar products / components)

##### Chronic toxicity

**Fish:** NOEC/NOEL > 100 mg/l. (based on similar products / components)

**Aquatic Invertebrates:** NOEC/NOEL > 100 mg/l. (based on similar products / components)

**Toxicity to Aquatic Plants:** Algae, practically nontoxic: LL/EL/IL50 > 100 mg/l. (based on similar products/components)



### Persistence and Degradability

**Biodegradation:** Product is a combination of organic and inorganic materials. Biodegradability of the organic portion under aerobic static laboratory conditions is high (BOD20 or BOD28 / THOD greater than 80%).

**Biological Oxygen Demand:** The methods for determining the biological degradability are not applicable to predominately inorganic substances.

**Chemical Oxygen Demand:** No data available

**BOD/COD Ratio:** No data available

**Bioaccumulative Potential:** Potential to bioaccumulate is low.

**Mobility in Soil:** Expected to partition to water.

**Results of PBT and mPvB Assessment:** Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.

**Other Adverse Effects:** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

### Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

### Section 14. Transport Information

#### Acute toxicity

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#### Section 15. Regulatory Information

##### **EPA SARA Title III Chemical Listings**

**TSCA Status:** This product is listed on the TSCA inventory. If this product is a blend, all ingredients in the product are listed on the TSCA Inventory List. Any impurities present in this product are exempt from listing.

**Section 302:** None

**Section 304:** None

**Section 312:** None

**SARA Section 313:** None

**Acute:** Yes (Eyes)

**Chronic:** No

**Fire:** No

**Pressure:** No

**Reactive:** No

**Clean Water Act:** None

##### **IMDG - International Marine Dangerous Goods Code**

Class Non Regulated - Possible Shipping Description(s): Non Regulated

##### **IATA**

Class Non Regulated - Possible Shipping Description(s): Non Regulated

**DEA Chemical Trafficking Act:** No

##### **HMIS Rating**

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Personal Protection:** B



Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 4/6/2017

