

Material Safety Data Sheet

Radiator Treatment

MSDS No. 065

Date of Preparation: 08-01-01

Revision: 12-02-05

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Radiator Treatment

Part Number(s): 4018

CAS Number: Not applicable to mixtures

General Use: Automotive product

Manufacturer: Berryman Products, Inc., 3800 E. Randol Mill Rd., Arlington, TX 76011-5434

Phone: 1-800-433-1704, Emergency phone number: 1-800-535-5053.

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Potassium Hydroxide	1310-58-3	1-5
Sodium Tolytriazole	64665-57-2	1-5
Sodium Phosphonate	20592-85-2	1-5
Sodium Nitrate	7631-99-4	1-5
Sodium Nitrite	7632-00-0	1-5
Monoethanolamine	141-43-5	1-5

Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Potassium Hydroxide	2 mg/m ³	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Sodium Tolytriazole	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Sodium Phosphonate	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Sodium Nitrate	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Sodium Nitrite	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Monoethanolamine	8 mg/m ³	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

Section 3 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Dark Green Color, Mild Odor

Vapor Pressure: N/A

Vapor Density (Air=1): N/A

Density: 8.51 lbs/gal

Specific Gravity (H₂O=1, at 4 °C): 1.020

Boiling Point: 210-220 °F

Refractive Index: N/A

% Volatile: N/A

Evaporation Rate: N/A

Section 4 - Fire-Fighting Measures

Flash Point: N/A

Flash Point Method: N/A

LEL: N/A

Flammability Classification: N/A

Extinguishing Media: Water, fog, carbon dioxide, foam, dry chemicals



Unusual Fire or Explosion Hazards: Containers exposed to intense heat should be cooled with water to prevent vapor pressure buildup, which could result in the weakening of the container structure and rupture.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Wear self-contained breathing apparatus pressure demand, MSNA/OSHA (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.

Section 5 - Stability and Reactivity

Stability: Radiator Treatment is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities & Conditions to Avoid: Avoid strong oxidizers, and strong acids.

Hazardous Decomposition Products: Thermal oxidative decomposition of Radiator Treatment can produce carbon monoxide, carbon dioxide, nitrogen oxides and hydrogen cyanide.

Section 6 - Health Hazard Information

Potential Health Effects

Primary Entry Routes: Skin, dermal, inhalation and ingestion.

Target Organs: Eyes, skin.

Acute Effects: Due to the high pH of this product, it is harmful to all tissue with which it comes into direct contact. Harmful to eyes and skin. Harmful to mouth, throat and gastrointestinal tract if swallowed.

Carcinogenicity: IARC, NTP, and OSHA do not list Radiator Treatment as a carcinogen.

Chronic Effects: None known.

Emergency and First Aid Procedures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

Eye Contact: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Ingestion: GET MEDICAL ATTENTION IMMEDIATELY. Do not induce vomiting.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 7 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures: Eliminate all sources of ignition. Stop spill at source. Wear appropriate personal protective equipment (Sec. 8). Contain the spill to facilitate cleanup with absorbent. Use non-sparking tools and equipment. Transfer to disposal containers.

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state and local regulations.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 8 - Exposure Controls / Personal Protection

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Special Precautions and Comments

Handling Precautions: Avoid prolonged breathing of vapor and contact with eyes, skin and clothing. Use in well ventilated area. Wash thoroughly after handling.

Storage Requirements: Keep out of reach of children. Store in containers that are resistant to alkaline solutions. Keep container closed when not in use.

California Proposition 65: This product contains the following chemicals know to the state of California to cause cancer and/or reproductive toxicity: None.

DOT Transportation Data (49 CFR 172.101):

Part Number(s): 4018

Shipping Name: Consumer
Commodity

Hazard Class: ORM-D
ID No.: N/A
Packing Group: N/A

SARA Title III Section 313 Supplier Notification:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the emergency Planning & Community Right-To-Know-Act of 1986 & of 40CFR 372: None.

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