

MSDS - Material Safety Data Sheet**Product Name: AIR BRAKE SYSTEM ANTI-FREEZE & RUST GUARD**

MSDS No.: M2834

I. Basic Information:**Manufacturer:** RADIATOR SPECIALTY COMPANY**Address:** 600 RADIATOR ROAD**City, ST Zip:** INDIAN TRAIL, NC 28079**Country:****Contact:** Robert Geer**Information Telephone Number:** 704-684--181 1**Emergency Contact:** Rocky Mountain Poison Control Center**Emergency Telephone Number:** 303-623-5716**Emergency Restrictions:****Product Name:** AIR BRAKE SYSTEM ANTI-FREEZE & RUST GUARD**MSDS No.:** M2834**Issue Date:** 09/30/2008**Supersedes Date:** 01/31/2006**II. Hazards Identification:****EMERGENCY OVERVIEW**

Danger: Poison, Vapor Harmful, Flammable. May be Fatal or cause Blindness if Swallowed. Eye and skin irritant.

Cannot be made nonpoisonous.

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects**Route(s) of Entry:**

Absorption, Inhalation, and Ingestion.

Health Hazards (Acute and Chronic):

See signs and symptoms below

Signs and Symptoms:

Eye Contact: Can irritate the eyes and cause blurred vision and/or blindness.

Skin Contact: Irritant. Defatting of tissue, dermatitis may occur.

Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis, dizziness and death

Ingestion: HARMFUL OR FATAL IF SWALLOWED.

Methanol may damage the liver and nervous system.

Medical Conditions Generally Aggravated by Exposure:

None Known

Other Health Warnings:

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

Potential Environmental Effects

Not Available

III. Composition/Information on Ingredients:

Chemical Name	CAS No.	% Range	Trade Secret
Denatonium Benzoate	3734-33-6	< 0.1	
Methanol	67-56-1	60.0 - 100.0	

IV. First Aid Measures:**Emergency and First Aid Procedures:**

Eye Contact: Flush eyes with clean water for 15 minutes while lifting eyelids and get prompt medical attention.

Skin Contact: Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.

Inhalation: Remove to fresh air. If breathing becomes difficult get prompt medical attention.

Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately.

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MSDS No.: M2834

Note to Physicians:

N/D

V. Fire Fighting Measures:**Suitable Extinguishing Media:**

Carbon Dioxide, dry chemical or water in large volumes.

Unsuitable Extinguishing Media:

Not determined

Products of Combustion:

Normal products of combustion, smoke, carbon dioxide, carbon monoxide.

Protection of Firefighters:

Wear self-contained positive pressure breathing apparatus and protective clothes.

VI. Accidental Release Measures:**Personal Precautions:**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental Precautions:

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred. Run off to sewer may create fire or explosion hazard.

Methods for Containment:

Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc).

Methods for Cleanup:

Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material.

Other Information:

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

VII. Handling and Storage:**Handling Precautions:**

Use with adequate ventilation and proper protective equipment, safety glasses, gloves and apron. Do not use or store near fire, sparks, or open flame. Store at temperatures below 120° away from oxidizers and acids. Keep container tightly closed when not being used. Use a ground strap when transferring material to another container.

Storage Precautions:

Do not use in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS! Danger: Flammable.

VIII. Exposure Controls/Personal Protection:

Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Methanol	200 PPM	200 PPM	Not Available
Denatonium Benzoate	N/E	N/E	Not Available

Engineering Controls:

See Section above for applicable exposure limits. Use with adequate ventilation. If TLV is exceeded, wear NIOSH approved respirator.

Personal Protective Equipment:

Wear protective safety glasses, gloves, and apron.

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IX. Physical and Chemical Properties:**Boiling Point:** 147°F**Boiling Range:** Not Available**Solubility In Water:** Insoluble**Flash Point:** 54°F**Odor Threshold:** Not Available**Vapor Density (AIR = 1):** >1**pH Range:** Not Available**Decomposition Temp:** Not Available**Lower Explosive Limit:** 6.0%**Specific Gravity (H2O = 1):** 0.79**Other Information:** N/D**Melting Point:** N/A**Freezing Point:** Not Available**Evaporation Rate (Butyl Acetate = 1):** >2.0**Flash Point Method:** TCC**Appearance and Odor:** Clear blue liquid with alcohol/ammonia odor**Vapor Pressure (mm Hg.):** 97.25**Partition Coefficient:** Not Available**Auto-Ignition Temp:** Not Available**Upper Explosive Limit:** 36.0%**X. Stability and Reactivity:****Stability:**

Product is stable

Conditions to Avoid:

See Incompatible Materials below.

Incompatible Materials:

Avoid contact with strong oxidizers and acids, and ignition sources.

Hazardous Decomposition Products:

Normal products of combustion, smoke, carbon dioxide, carbon monoxide.

Possibility of Hazardous Reactions:

Will not occur

XI. Toxicological Information:

LC50: 64000 ppm/4 hours inhalation-rat

LD50: 5628 mg/kg oral-rat

15800 mg/kg skin-rabbit

XII. Ecological Information:

N/D

XIII. Disposal Considerations:

DISPOSAL: This container may be recycled in a recycling centers when empty. Before offering for recycling, empty the can or bottle by using the product according to the label. If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations

XIV. Transport Information:**Shipping Name:** Methanol**DOT Hazard Class:** Not Available**UN/NA#:** Not Available**Transportation Information:****DOT Subsidiary Hazard Class:** Not Available**Packing Group:** Not Available

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MSDS No.: M2834

Shipping Name: Methanol
 Hazard Class: 3
 Packaging Group: II
 UN number: UN1230

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping purposes.

ICAO/IATA (US)
 Shipping name: Methanol
 Class: 3 (6.1)
 Packaging group: II
 UN number: 1230

International:
 ICAO/IATA
 UN number: 1230
 Shipping name: Methanol
 Class: 3 (6.1)
 Packaging group: II

IMDG
 UN number: 1230
 Shipping name: Methanol
 Class: 3 (6.1)
 Packaging group: II
 EMS: F-E, S-D

XV. Regulatory Information:

SARA 313 Reportable Chemical:
 Methanol 67-56-1

USA TSCA: All components of this material are either exempt or listed on the US TSCA Inventory.

State RTK
 Methanol 67-56-1

XVI. Other Information:

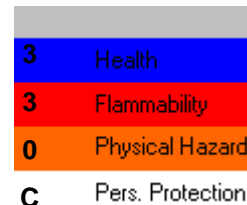
Chemical State: Liquid Gas Solid
Chemical Type: Pure Mixture
Hazard Category:
 Acute Chronic Fire
 Pressure Reactive



Additional Manufacturer Warnings:

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established
 N/D: Not Determined
 N/A: Not Applicable
 N/AV: Not Available



Additional Product Information:

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.