

MSDS - Material Safety Data Sheet**Product Name: RADIATOR TEN MINUTE FLUSH**

MSDS No.: C1449

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:** RMPDC (877-740-5015)**Emergency Telephone Number:** 303-623-5716**Emergency Restrictions:****Product Name:** RADIATOR TEN MINUTE FLUSH**MSDS No.:** C1449**Issue Date:** 12/09/2011**Supersedes Date:** 02/27/2008**II. Hazards Identification:****EMERGENCY OVERVIEW**

Caution: Harmful if swallowed. Eye and Skin irritant.

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, Eye, Inhalation, and Ingestion.

Health Hazards (Acute and Chronic):

See signs and symptoms below

Signs and Symptoms:

Eye Contact: Eye irritant. Direct spray of vapors may be irritating or harmful to eyes.

Skin Contact: Skin irritant. Product may cause irritation due to defatting of skin.

Inhalation: High concentration of vapors may irritate nose and throat and cause headaches and nausea.

Ingestion: Can cause irritation, gastric disturbances, and nausea..

Medical Conditions Generally Aggravated by Exposure:

None Known

Other Health Warnings:

None Known

Potential Environmental Effects

Not Available

III. Composition/Information on Ingredients:

Chemical Name	CAS No.	% Range	Trade Secret
2-Butoxyethanol	111-76-2	1.0 - 5.0	
Caustic potash	1310583	< 0.1	
Tetrapotassium Diphosphate (TKPP)	7320-34-5	0.1 - 1.0	

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

Eye Contact: Flush eyes with water for 15 minutes while lifting upper and lower eyelid. Get prompt medical attention.

Skin Contact: Wash with soap and water. If irritation persists, get prompt medical attention.

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

Ingestion: Call Poison Control Center, physician, or hospital emergency room immediately.

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Note to Physicians:

N/D

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

Water Fog, Foam, Carbon Dioxide, Dry Chemical. Material will not support combustion, use extinguisher recommended for source of fire.

Unsuitable Extinguishing Media:

N/D

Products of Combustion:

Nitrogen oxides and carbon dioxide

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.

Methods for Containment:

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

Methods for Cleanup:

Neutralize remaining traces of material and flush with water followed by liberal covering with sodium bicarbonate. Using scoop, place contaminated clean-up material into an approved chemical waste container. Where possible, vacuum spilled liquid using a vacuum to recover material. Rinse water may be disposed of down a sanitary sewer system if authorized by the local municipality.

Other Information:

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.

Storage Precautions:

Keep container closed tightly when not in use. Store in a cool place away from acids and oxidizing agents.

VIII. Exposure Controls/Personal Protection:

Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
2-Butoxyethanol	25 ppm	25 ppm	Not Available
Tetrapotassium Diphosphate (TKPP)	15 mg/m ³	10 mg/m ³	Not Available
Caustic potash	2 gm/m ³	2 mg/m ³	Not Available

Engineering Controls:

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

Personal Protective Equipment:

For prolonged exposure to the material, wear safety glasses, gloves, and apron.

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IX. Physical and Chemical Properties:**Boiling Point:** 212 F**Boiling Range:** N/D**Solubility In Water:** Soluble**Flash Point:** None**Odor Threshold:** N/D**Vapor Density (AIR = 1):** N/D**pH Range:** 7.0 - 9.0**Decomposition Temp:** N/D**Lower Explosive Limit:** N/A**Specific Gravity (H2O = 1):** 1.00**Other Information:** R.I: 1.3392 - 1.3432

VOC Contents: 3.49% (Wt)

Melting Point: N/A**Freezing Point:** N/D**Evaporation Rate (Butyl Acetate = 1):** N/D**Flash Point Method:** N/A**Appearance and Odor:** Clear fluorescent yellow/green with characteristic odor**Vapor Pressure (mm Hg.):** N/D**Partition Coefficient:** N/D**Auto-Ignition Temp:** N/A**Upper Explosive Limit:** N/A**X. Stability and Reactivity:****Stability:**

Stable

Conditions to Avoid:

See Incompatible Materials below.

Incompatible Materials:

Avoid oxidizing agents, and strong acids

Hazardous Decomposition Products:

Nitrogen oxides and carbon dioxide

Possibility of Hazardous Reactions:

Will not occur

XI. Toxicological Information:

No data available.

XII. Ecological Information:

No data available

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:** Not Available**DOT Hazard Class:** Not Regula**UN/NA#:** Not Available**Transportation Information:****DOT Subsidiary Hazard Class:** Not Available**Packing Group:** Not Available

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DOT Shipping Name: Not DOT regulated.

DOT Hazard Class: None

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

ICAO/IATA (US): Not Regulated

International:

ICAO/IATA : Not Regulated

IMDG: Not Regulated

XV. Regulatory Information:

SARA 313 Reportable Chemicals.

2-Butoxyethanol - 111-76-2

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

State RTK Chemicals:

2-Butoxyethanol - 111-76-2

XVI. Other Information:

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

**Additional Manufacturer Warnings:**

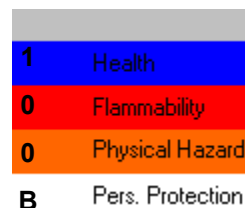
Contact lenses may cause further damage in case of splash into eye.
 KEEP AWAY FROM CHILDREN AND ANIMALS!

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.