

MSDS - Material Safety Data Sheet**Product Name: SUPER HEAVY DUTY RADIATOR CLEANER**

MSDS No.: C2232

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 Poision Control Center**Emergency Telephone Number:** 303-623-5716**Emergency Restrictions:****Product Name:** SUPER HEAVY DUTY RADIATOR CLEANER**MSDS No.:** C2232**Issue Date:** 05/20/2008**Supersedes Date:** 06/15/2006**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: Irritant. Prolonged exposure to eyes may cause permanent damage.

Skin Contact: Irritant. Prolonged exposure may cause skin burn or dermatitis..

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

Ingestion: Harmful if swallowed. 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	
Citric acid	77-92-9	10.0 - 30.0	
Dodecylbenzenesulfonic acid	27176-87-0	1.0 - 5.0	
EDTA	64-02-8	7.0 - 13.0	
N-Methyl-2-pyrrolidone	872-50-4	1.0 - 5.0	
Potassium hydroxide	1310-58-3	1.0 - 5.0	

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

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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.

Note to Physicians:

N/E

V. Fire Fighting Measures:

Suitable Extinguishing Media:

Water Fog, Foam, Carbon Dioxide, Dry Chemical

Unsuitable Extinguishing Media:

N/E

Products of Combustion:

At high temperatures, carbon dioxide, carbon monoxide, and corrosive fumes

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:

Neutralize remaining traces of material and flush with water followed by liberal covering with sodium bicarbonate. All clean-up material should be removed and placed in approved containers for disposal. 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. Use good hygiene practices.

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:

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Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Citric acid	N/D	N/D	Not Available
EDTA	N/D	N/D	Not Available
Potassium hydroxide	N/E	2 mg/m3	2 mg/m3
Dodecylbenzenesulfonic acid	N/E	N/E	Not Available
N-Methyl-2-pyrrolidone	N/E	N/E	Not Available
2-Butoxyethanol	25 ppm	25 ppm	Not Available

Engineering Controls:

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

Personal Protective Equipment:

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

IX. Physical and Chemical Properties:**Boiling Point:** 212 F**Boiling Range:** Not Available**Solubility In Water:** Soluble**Flash Point:** N/A**Odor Threshold:** Not Available**Vapor Density (AIR = 1):** N/A**pH Range:** 4.5 - 6.0**Decomposition Temp:** Not Available**Lower Explosive Limit:** N/A**Specific Gravity (H2O = 1):** 1.09**Other Information:** VOC Contents: 4.2% (Wt)**Melting Point:** N/A**Freezing Point:** Not Available**Evaporation Rate (Butyl Acetate = 1):** N/A**Flash Point Method:** Not Available**Appearance and Odor:** Yellow tint clear liquid with bland odor**Vapor Pressure (mm Hg.):** N/A**Partition Coefficient:** Not Available**Auto-Ignition Temp:** Not Available**Upper Explosive Limit:** N/A**X. Stability and Reactivity:****Stability:**

Stable

Conditions to Avoid:

See Incompatible Material below.

Incompatible Materials:

Finely divided metals, strong oxidizers, and alkalis.

Hazardous Decomposition Products:

At high temperatures, carbon dioxide, carbon monoxide, and corrosive fumes

Possibility of Hazardous Reactions:

Will not occur

XI. Toxicological Information:

N/D

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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: Not Available

DOT Hazard Class: Not Available

DOT Subsidiary Hazard Class: Not Available

UN/NA#: Not Available

Packing Group: Not Available

Transportation Information:

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 Reportable Chemicals.
2 butoxy-ethanol (111-76-2)
N-Methyl 2 Pyrrolidone (872-50-4)

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

Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

XVI. Other Information:

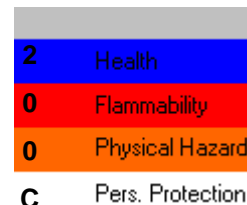
- Chemical State:** Liquid Gas Solid
- Chemical Type:** Pure Mixture
- Hazard Category:**
- Acute Chronic Fire
- Pressure Reactive



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



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