

MSDS - Material Safety Data Sheet**Product Name: MOTOR FLUSH**

MSDS No.: MF3

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:** MOTOR FLUSH**MSDS No.:** MF3**Issue Date:** 04/09/2009**Supersedes Date:** 06/18/2008**II. Hazards Identification:****EMERGENCY OVERVIEW**

Danger: Harmful or Fatal if Swallowed. Combustible. 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 contact may cause conjunctivitis.

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

Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis..

Ingestion: HARMFUL OR FATAL IF SWALLOWED. May cause burns to mouth, throat & stomach.

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
Isopropylamine Dodecylbenzene Sulfonate	26264-05-1	0.1 - 1.0	
Naphthalene	91-20-3	0.1 - 1.0	
Naphthenic Petroleum Distillate	64742-52-5	7.0 - 13.0	
Petroleum distillate, Aliphatic	68476-34-6	60.0 - 100.0	
Toluene	108-88-3	0.1 - 1.0	
Xylene (mixed isomers)	1330-20-7	0.1 - 1.0	

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. 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:

Do not use forced water stream as this could cause the fire to spread.

Products of Combustion:

Normal products of combustion, carbon dioxide, carbon monoxide, smoke, sulfur oxides, nitrogen oxides .

Protection of Firefighters:

Wear self-contained positive pressure breathing apparatus and protective clothes. Use shield to protect from rupturing and venting containers. At elevated temperatures containers may vent, rupture or burst, even violently

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 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:

All equipment used with handling the concentrate must be grounded. If run-off occurs, notify proper authorities as required that a spill has occurred.

VII. Handling and Storage:

Handling Precautions:

Handling: Use with adequate ventilation and proper protective equipment.

Do not use near fire, sparks, or flame. Store in cool, well ventilated area below 120°F away from heat sources. Avoid contact with alkalis and strong oxidizing agents.

Storage Precautions:

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!

VIII. Exposure Controls/Personal Protection:

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Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Naphthalene	10 ppm	10 ppm	Not Available
Petroleum distillate, Aliphatic	N/E	100 ppm	N/E
Naphthenic Petroleum Distillate	5 mg/m3	5 mg/m3	Not Available
Xylene (mixed isomers)	100 ppm	100 ppm	Not Available
Toluene	100 PPM	100 PPM	Not Available
Isopropylamine Dodecylbenzene Sulfonate	Not Available	Not Available	Not Available

Engineering Controls:

See above applicable exposure limits. Maintain adequate ventilation. Avoid breathing vapors. In restricted areas, use respirator with approved chemical filters designed to remove vapor. In confined areas, use approved air line type respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above TLV limit

Personal Protective Equipment:

Wear safety glasses and gloves.

For bulk use chemical wear :

Protective Gloves: Neoprene coated cotton gloves or Nitrile rubber chemical gloves.

Eye Protection: Safety glasses. For bulk use chemical splash goggles.

Other Protective Clothing: Impervious clothing and rubber boots. Long sleeves, long pants, rubber apron.

Other Protective Equipment: Emergency Eye Wash Fountain.

IX. Physical and Chemical Properties:

Boiling Point: 175°F

Boiling Range: Not Available

Solubility In Water: Insoluble

Flash Point: 140°F

Odor Threshold: Not Available

Vapor Density (AIR = 1): N/D

pH Range: Not Available

Decomposition Temp: Not Available

Lower Explosive Limit: N/D

Specific Gravity (H2O = 1): 0.86

Other Information: N/D

Melting Point: N/A

Freezing Point: Not Available

Evaporation Rate (Butyl Acetate = 1): N/D

Flash Point Method: TCC

Appearance and Odor: Clear red/orange liquid with characteristic odor

Vapor Pressure (mm Hg.): N/D

Partition Coefficient: Not Available

Auto-Ignition Temp: Not Available

Upper Explosive Limit: N/D

X. Stability and Reactivity:

Stability:

Stable

Conditions to Avoid:

See Incompatible Materials below.

Incompatible Materials:

Avoid open flame or sparks, oxidizing agents and acids.

Hazardous Decomposition Products:

Normal products of combustion, carbon dioxide, carbon monoxide, smoke, sulfur oxides, nitrogen oxides .

Possibility of Hazardous Reactions:

Will not occur

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XI. Toxicological Information:

N/D

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:

Ground Shipping::

DOT Shipping Name: Consumer Commodity

DOT Hazard Class: ORM-D

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):

UN number: UN1268

Shipping name: Petroleum Products, n.o.s. (Petroleum Distillate, Aliphatic)

Class: 3

PG: III

International:

ICAO/IATA:

UN number: UN1268

Shipping name: Petroleum Products, n.o.s. (Petroleum Distillate, Aliphatic)

Class: 3

PG: III

IMDG:

UN number: UN1268

Shipping Name: Petroleum Products, n.o.s. (Petroleum Distillate, Aliphatic), Limited Quantity - Personal or Household Use.

Class: 3

PG: III

EMS: F-E, S-E

XV. Regulatory Information:

SARA 313 Reportable Chemicals:

Naphthalene (91-20-3)

Xylene (1330-20.7)

Toluene (108-86-3)

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

Warning: This product contains a chemical(s) known to the State of California to cause cancer or birth defects or other reproductive harm.

State RTK Chemicals:

Naphthalene (91-20-3)

Xylene (1330-20-7)

Toluene (108-86-3)

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XVI. Other Information:

Chemical State: Liquid Gas Solid

Chemical Type: Pure Mixture

Hazard Category:

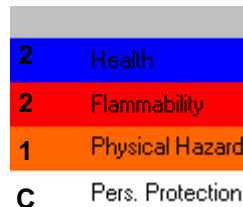
Acute Chronic Fire Pressure Reactive



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.