

# MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT Enviro-Tek Radiator Flush

MSDS DATE:12/12/09

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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** Radiator Flush  
**SYNONYMS:** Coolant Flush  
**PRODUCT CODES:**

**MANUFACTURER:** MMJ Marketing  
**DIVISION:**  
**ADDRESS:** 380 Wingo Heights Rd Spartanburg, SC 29305

**EMERGENCY PHONE:** (864) 641-5478  
**CHEMTREC PHONE:**  
**OTHER CALLS:**  
**FAX PHONE:** (864) 578-2720

**PRODUCT USE:** Cooling system flushing (automotive)  
**PREPARED BY:** Mark Saville

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## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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### Chemical characterization ( preparation )

Organic and inorganic acids Sum of ingredients:  
corrosion preventing agent 70 - 85 %  
Cleaning agent.

### **Hazardous components**

EC-No.	CAS-No.	Chemical name	Quantity	Classification
226-218-8	5329-14-6	sulfamic acid, sulphamic acid, sulphamidic	10 - 30 %	Xi R36/38-52-53
201-069-1	5949-29-1	citric acid	< 10 %	Xi R36

Full text of each relevant R phrase can be found in heading 16.

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## SECTION 3: HAZARDS IDENTIFICATION

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### **Classification**

Symbols : Corrosive  
R-phrases :  
Causes burns.

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## SECTION 4: FIRST AID MEASURES

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### **General information**

**Take the injured person out of the danger area and lay him/her down. Move victim to fresh air. Instruct person to keep calm and warm.**  
Immediately remove any contaminated clothing, shoes or stockings.

Provide fresh air. In case of difficulties of breathing consult physician.

### **After inhalation**

Change contaminated clothing. After contact with skin, wash immediately with soap and plenty of water.

Wash contaminated clothing prior to re-use.

### **After contact with skin**

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult physician.

### **After contact with eyes**

### **After ingestion**

### **Advice to doctor**

**Rinse mouth immediately and drink large quantities of water.**

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Do not induce vomiting. Consult physician.

The following symptoms can occur:

Coughing. Nausea. dyspnoea. Belly-ache.

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## SECTION 5: FIRE-FIGHTING MEASURES

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### Suitable extinguishing media

**Extinguishing powder. Sand. alcohol resistant foam.**

### Extinguishing media which must not be used for safety reasons

High power water jet.

### Special exposure hazards arriving from substance or preparation itself, combustion products, resulting gases

Sulphur dioxide (SO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Ammonia.

### Additional information

Contaminated fire-fighting water must not get into the sewerage network. Contaminated fire-fighting water must be collected separately.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### Personal precautions

**Provide adequate ventilation. Avoid contact with skin and eyes.**

### Environmental precautions

Do not empty into drains or the aquatic environment. In cases of gas being released or leakage into waters, the ground or the drainage system the appropriate authorities must be informed.

### Methods for cleaning up/taking up

Prevent allover extension (e.g. knocking-down or a boom).

Absorb with liquid-binding material ( e.g. sand, diatomaceous earth, acid- or universal binding agents).

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## SECTION 7: HANDLING AND STORAGE

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### 7.1 Handling

Keep container tightly closed in a cool place.

Avoid contact with skin and eyes.

#### Advice on safe handling

### 7.2 Storage

Do not store together with: Alkalis (alkalis).

#### Advice on storage compatibility

Storageclass (VCI) 8 B

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Exposure limit values

### 8.2 Exposure controls

#### Protective and hygiene measures

Take off immediately all contaminated clothing

Avoid contact with skin and eyes.

#### Hand protection

Tested protective gloves are to be worn: Butyl rubber.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 General information

Colour light green

Physical state liquid, clear

Odour odourless

### 9.2 Important health, safety and environmental information

Test method

pH-Value (at 20 °C) : 0-1

#### Changes in the physical state

Melting point < 0 °C

Boiling point > 100 °C

Density (at 20 °C) : 1,07 g/cm<sup>3</sup>

Water solubility : easily soluble.  
at (20 °C)

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## SECTION 10: STABILITY AND REACTIVITY

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### Conditions to avoid

No decomposition when used as intended.

### Materials to avoid

Oxidizing agents. Alkalis (alkalis), concentrated.

### Hazardous decomposition products

Sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), Ammonia.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### Corrosive and irritant effects

Irritant effect on the skin: Irritation and etching

Following eye contact: Risk of serious damage to eyes.

### Sensitising effects

none

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## SECTION 12: ECOLOGICAL INFORMATION

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### Additional information

### **Do not empty into drains or the aquatic environment.**

The product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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### Advice on disposal

Do not dispose with household waste.

Do not empty into drains or the aquatic environment.

Arrange about the exact waste code with the local waste disposal expert.

The product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

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## SECTION 14: TRANSPORT INFORMATION

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## Land transport (ADR/RID)

ADR/RID class 8

Warning plate

Hazard-no. 80

UN number 2967

Hazard label 8

ADR/RID packing group III

## Description of the goods

sulphamic acid

## Remarks (land transport)

LQ: 6 Kg

## Marine transport

IMDG code 8

UN number 2967

Marine pollutant -

EmS F-A, S-B

IMDG packing group III

Hazard label 8

## Description of the goods

sulphamic acid

LQ: 5 Kg

## Remarks (marine transport)

## Air transport

ICAO/IATA-DGR 8

UN/ID number 2967

Hazard label 8

ICAO packing group III

sulphamic acid

## Description of the goods

LQ: 5 Kg

## Remarks (air transport)

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## SECTION 15: REGULATORY INFORMATION

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### 15.1 Labelling

Indication of danger

C - Corrosive

C - Corrosive

### R phrases

34 Causes burns.

### S phrases

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

01/02 Keep locked up and out of the reach of children.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

### 15.2 National regulations

Water contaminating class 1 - slightly water contaminating

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## SECTION 16: OTHER INFORMATION

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### List of relevant R phrases

34 Causes burns.

36 Irritating to eyes.

52 Harmful to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

36/38 Irritating to eyes and skin.