



Date Issued: **November 20, 2008**

Supersedes Date: **January 17, 2000**

## MATERIAL SAFETY DATA SHEET

IDENTIFICATION AND EMERGENCY INFORMATION				
<b>Product Name</b>	RadAway			
<b>Product Code (Catalog Number)</b>	RA-C, RA-LVS-C			
<b>Product Category (Chemical Name)</b>	RadAway			
<b>Product Appearance and Odor</b>	Black granular or powder, no odor.			
<b>Emergency Notification</b>	Chem-Tel 1-800-255-3924			
COMPONENTS AND HAZARD INFORMATION				
Component	CAS No.	%	OSHA TWA	OSHA STEL
Activated Carbon	7440-44-0		NA	NA
Trimethylamine functionalized Chloromethylated copolymer of styrene and divinylbenzene in the chloride form	060177-39-1		NL	NL
Alumina	1344-28-1		NL	NL
Polysaccharide	NL		NL	NL
Water	007732-18-5		NL	NL
PHYSICAL DATA				
<b>THE FOLLOWING DATA ARE APPROXIMATE OR TYPICAL VALUES AND SHOULD NOT BE USED FOR PRECISE DESIGN PURPOSES.</b>				
<b>Boiling Range</b> NA	<b>Specific Gravity</b> 1.9-2.2	<b>Molecular Weight</b> NL	<b>Viscosity</b> NA	
<b>Percent Volatile by Volume</b> NA	<b>Vapor Pressure @ 20 C degrees</b> NA	<b>Vapor Density (Air = 1)</b> NA	<b>Pour, Congealing or Melting Point</b> NA	
<b>Solubility in Water @ 1 ATM and 25°C (77°F)</b> NA		<b>Evaporation Rate @ 1 ATM and 25°C (77°F) (n-Butyl Acetate =1)</b> NA		<b>pH</b> NA
FIRE AND EXPLOSION HAZARD INFORMATION				
<b>Flash Point (Minimum)</b> NA	<b>Autoignition Temperature</b> 350 °C	<b>Test Mode</b> NL	<b>LEL</b> NL	<b>UEL</b> NL
<b>Handling Precautions</b> None, as long as the cartridge is in tact.				

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

Dust from broken cartridges may cause the following: Eye irritation, minor irritation to respiratory system.

(ACGIH, OSHA and other TLV are not applicable for this product)

**Flammable or Explosive Limits (Approximate Percent by Volume in Air)**

Stable under normal handling and storage conditions. Product is not combustible until moisture is removed. Burns in flame at 230 °C.

**Extinguishing Media**

Flood with plenty of water or inert gas such as N<sub>2</sub> and CO<sub>2</sub> or dry chemical.

**Fire Fighting Procedures**

None. Over heating can produce semi-liquid melt. Molten material can also contribute to spread of fire.

**Decomposition Products Under Fire Condition**

Possible fire combustion products: Alkybenzenes, vinylbenzenes, naphthalene, benzaldehydes, phenol, carbon dioxide, water, organic amines, ammonia, chlorine, nitrogen oxide, methyl chloride and minor amounts of hydrogen cyanide, or aldehydes.

**“Empty” Container Warning**

NE

**Unusual Fire and Explosion Hazards**

Warning: Strong oxidizing agents such as nitric acid or ozone may, under certain conditions, degrade the contents of the cartridge up to a explosive reaction.

**HEALTH AND HAZARD INFORMATION**

**Variability Among Individuals**

NE

**Signs and symptoms of overexposure**

Slight irritation of eyes and nose may result from contact.

**Effects of Overexposure**

Prolonged exposure may cause damage to lungs.

**Nature of Hazard and Toxicity Information**

NNR

**Pre-existing Medical Conditions which may be Aggravated by Exposure**

NA

**Threshold Limit Value**

NE

**Health Hazards**

Eye: May cause severe eye irritation. May cause moderate corneal injury. Effects are likely to heal

Skin: Prolonged or repeated exposure not likely to cause significant skin irritation. May cause more severe response if skin is abraded. LD-50 for rabbits is >2000 mg/Kg.

Ingestion: Vapors are unlikely due to physical properties.

**PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES**

**Eye Contact**

Flush with plenty of water for as least 15 minutes.

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<b>Skin</b> Wash off with soap and water.		
<b>Inhalation</b> In case of inhalation move victim into fresh air. .		
<b>Ingestion</b> No adverse effects anticipated by this route of exposure.		
Note to physician: No specific antidote. Supportive care. Treatment based on physician's judgement in response to reaction of the patient.		
<b>SEEK MEDICAL TREATMENT IF DISCOMFORT PERSISTS.</b>		
<b>REACTIVITY</b>		
<b>Stability</b> Stable under normal conditions	<b>Incompatibility</b> Strong oxidizing agents such as nitric acid, ketone or ozone.	<b>Hazardous Decomposition Products</b> CO
<b>Conditions to Avoid</b> Generation of dust during and fines during handling of a broken cartridge.	<b>Hazardous Polymerization</b> Will not occur	<b>Materials to Avoid</b> See incompatibility statement
<b>ENVIRONMENTAL INFORMATION</b>		
<b>Steps to be Taken in Case Material is Released or Spilled</b> Wear protective breathing filter and sweep up.		
<b>Disposal</b> Dispose in accordance with local, state and federal regulations. Incineration.		
<b>Protective Gear</b> Rubber gloves, Protective clothing, Safety glasses, If dust from a cartridge is present use a NIOSH approved particulate filter. Good general ventilation.		
<b>Precautions to be taken in handling and storage</b> Avoid breaking open the cartridge as dust may occur. Avoid possible sources of ignition.		
<b>THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES.</b>		
<b>Reportable Quantity (RQ), EPA Regulation 40 CFR 302 (CERCLA Section 102)</b> NE		
<b>Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355 (SARA Sections 301-304)</b> NE		
<b>Toxic Chemical Release Reporting, EPA Regulation 40 CFR 372 (SARA Section 313)</b> NE		
<b>Hazardous Chemical Reporting, EPA Regulation 40 CFR 370 (SARA Sections 311-312)</b> NE		

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PROTECTION AND PRECAUTIONS
<b>Ventilation</b> Good general ventilation.
<b>Respiratory Protection</b> No respiratory protection should be required.
<b>Protective Gloves</b> Not needed with normal use.
<b>Eye Protection</b> Optional
<b>Other Protective Equipment</b> Safety shower and eye bath.
TRANSPORTATION AND OSHA RELATED LABEL INFORMATION
<b>Transportation Incident Information</b> Notify EPA.
<b>U.S. DOT Hazardous Materials Shipping Description</b> NL
<b>OSHA Required Label Information</b> NL

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