

MATERIAL SAFETY DATA SHEET

Radiator Specialty Company

1900 WILKINSON BLVD. CHARLOTTE, NC 28208 (704) 377-6555

POISON INFORMATION & EMERGENCY: 303-623-5716

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

US DEPARTMENT OF LABOR

Occupational Safety and Health Administration.
(Non-Mandatory Form) Form Approved OMB No. 1218-0072

SECTION I GENERAL INFORMATION

PRODUCT NAME BRAKE CLEANER (Non Chlorinated)
PART NUMBER M7 -15

NOTE: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	WT%	C.A.S. NO.	TLV (ACGIH-----OSHA-----)
Heptane	35-45	142-82-5	400 ppm
Acetone *	40-50	67-64-1	750 ppm
Xylene *	6-10	1330-20-7	100 ppm
Ethylbenzene *	1-3	100-41-4	100 ppm
Carbon Dioxide	5-10	124-38-9	

* THESE CHEMICALS ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372

Comments: N. F. P. A. LEVEL 3 AEROSOL

Components not identified are non-hazardous according to 29 CFR 1910.1200

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Specific Gravity (H ₂ O=1)	.76	pH	Not applicable
Solubility in Water	Slight	Solubility in Solvent	Soluble
Flash Point (Method) - F°	1 (TCC)	% Volatiles By Wt.	100
Melting Point - F°	Does not apply	Boiling Point - F°	133
Vapor Pressure (mm Hg)	Non available	Vapor Density (Air=1)	Not available
Evaporation Rate (Butyl Acetate=1)	Very fast		
Appearance and Odor	Clear fluid with petroleum/ketone odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA:

Water Fog XX Foam XX CO₂ XX Dry Chemical XX

SPECIAL FIRE FIGHTING PROCEDURES. Wear self-contained, positive pressure breathing apparatus and protective clothes. Water by fog nozzles may be used to cool containers to prevent pressure build-up and explosion due to extreme heat.

UNUSUAL FIRE AND EXPLOSION HAZARDS Closed containers may explode when exposed to extreme heat. Vapor accumulation can flash or explode if ignited. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent.

SECTION V REACTIVITY DATA

Stable XX	Unstable	Corrosive	NO	Hazardous Polymerization? Yes	No XX
Incompatibilities Strong oxidizing agents Applications to hot surfaces Storage above 120° F. Exposure to open flame					
Hazardous Decomposition or Byproducts May produce fumes when heated to decomposition.. Fumes may contain carbon monoxide or/and other toxic fumes.					

SECTION VI HEALTH HAZARD INFORMATION

Recommended TLV of Product 100 ppm	
EYE CONTACT Severe irritant. May cause permanent damage to cornea. May cause blurred vision	SKIN CONTACT May dry the skin. Prolonged contact may cause irritation
INHALATION Irritation, headache, nausea, fatigue, drowsiness, poor coordination, unconsciousness	INGESTION Irritation, vomiting, diarrhea and death.
OTHER Inhaling contents of container may be harmful or fatal. Conditions known to be aggravated by exposure: none known. Effects of chronic exposure: unknown for product as a whole	

SECTION VII EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT Wash immediately with large volumes of fresh water for at least 15 minutes while lifting the eyelids.. Get medical attention immediately.
SKIN CONTACT Wipe off with towel. Wash with soap and water. Get medical attention if irritation persists.
INHALATION Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention immediately.
INGESTION Call physician immediately. Only induce vomiting at instruction of physician. Never give anything by mouth to an unconscious person.

SECTION VIII SPECIAL PROTECTION INFORMATION

CONSUMER		BULK HANDLING (Prolonged Exposure)
RESPIRATORY PROTECTION	None needed	If TLV is exceeded, wear NIOSH approved respirator
VENTILATION	Use with adequate ventilation.	General dilution and/or local exhaust
EYE PROTECTION	Safety glasses recommended	Goggles or full face shield
PROTECTIVE CLOTHING	None needed	Buna N gloves and apron

SECTION IX PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL OR LEAK PROCEDURE Avoid breathing vapors. Ventilate area. Remove all sources of ignition. Clean up area with absorbent materials and place in closed containers for disposal.
WASTE DISPOSAL METHOD Dispose of in accordance with all applicable government laws and regulations.
STORAGE AND HANDLING PRECAUTIONS Storage should be in areas suitable for level 3 aerosols. Do not store over 120°F. Do not puncture or incinerate cans. Do not stick pin, nail or any other sharp object into opening on top of can.
OTHER PRECAUTIONS Wearing contact lenses is inadvisable! Do not puncture nor incinerate cans! KEEP AWAY FROM CHILDREN AND ANIMALS.! Do not spray into eyes! Do not take internally!

HAZARD INFORMATION LABEL DATA		
HAZARD CODE	FLAMMABILITY	REACTIVITY
4- Extreme		4
3- High		
2- Moderate		
1- Slight		
0- Negligible		
*pr=pressure		

Supersedes AUGUST 1996

OSHA Revised FEBRUARY 1999

Title R. GEER - CHEMIST

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.

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SECTION I GENERAL INFORMATION

PRODUCT NAME BRAKE CLEANER (AEROSOL)
PART NUMBER M7-20

NOTE: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	WT%	C.A.S. NO.	TLV (ACGIH---X---OSHA--X---)	
Perchloroethylene*	90-100	127-18-4	25 ppm TWA 100 ppm STEC	25 ppm PEL
Carbon Dioxide (propellant)	1-3	124-38-9		5000ppm (air)

*Carcinogen by International Agency for Research on Cancer (IARC).
Warning: "This product contains a chemical known to the State of California to cause cancer."
This chemical is subject to reporting requirements of Section 313, SARA Title III.

Comments: N. F. P. A. LEVEL 1 AEROSOL

Components not identified are non-hazardous according to 29 CFR 1910.1200

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Specific Gravity (H ₂ O=1)	1.61	pH	Not applicable
Solubility in Water	Insoluble	Solubility in Solvent	Hydrocarbons
Flash Point (Method) - F°	None	% Volatiles By Wt.	100
Melting Point - F°	Not applicable	Boiling Point - F°	250
Vapor Pressure (mmHg)	13mmHg @ 20°C.	Vapor Density (Air=1)	5.7
Evaporation Rate (Butyl Acetate=1)	1.66 (rapid)		
Appearance and Odor	Colorless volatile liquid with ether-like odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Ingredients non-flammable. However, if involved in fire, use methods below.

Water Fog X Foam CO₂ X Dry Chemical X

SPECIAL FIRE FIGHTING PROCEDURES. Wear self-contained, positive pressure breathing apparatus and protective clothes. Cool containers by water spray. Shield personnel to protect from venting, rupturing, and bursting cans.

UNUSUAL FIRE AND EXPLOSION HAZARDS Contents under PRESSURE! May explode when heated! Vapors of this product may present a future health hazard in poorly ventilated areas. May liberate corrosive hydrochloric acid or toxic phosgene fumes.

M720AERO

SECTION V REACTIVITY DATA

Stable	X	Unstable	Corrosive	NO	Hazardous Polymerization?	Yes	No	X
Incompatibilities								
metal surfaces.								
Hazardous Decomposition or Byproducts								
surfaces: Phosgene and Chlorine. Flames, welding, and high temps induce decomposition.								

SECTION VI HEALTH HAZARD INFORMATION

Recommended TLV of Product 25 ppm

EYE CONTACT

May cause pain and temporary eye irritation

SKIN CONTACT

Defatting, dermatitis on prolonged exposure

INHALATION

Dizziness, headache, narcosis

INGESTION

Harmful or fatal if swallowed in large amounts.

OTHER Excessive ingestion may cause stomach irritation, nausea, vomiting. Can cause liver damage and affect the kidneys adversely.

SECTION VII EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT Flush eyes with water for 15 minutes while lifting eyelids. Consult physician immediately.

SKIN CONTACT Wash with mild soap and water. Remove any contaminated clothing and allow to dry in well ventilated area out of doors.

INHALATION Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult call a physician or transport to a medical facility.

INGESTION DO NOT INDUCE VOMITING! CONSULT PHYSICIAN IMMEDIATELY. NEVER GIVE ADRENALINE OR OTHER SYMPATHOMIMETIC DRUGS TO PERSONS OVEREXPOSED TO PERCHLOROETHYLENE.

SECTION VIII SPECIAL PROTECTION INFORMATION

	CONSUMER	BULK HANDLING (Prolonged Exposure)
RESPIRATORY PROTECTION	N/A	If TLV is exceeded, wear NIOSH approved respirator
VENTILATION	Use with a high degree of ventilation	General and/or local high volume ventilation
EYE PROTECTION	N/A	Fully protective goggles or face shield
PROTECTIVE CLOTHING	N/A	Butyl rubber gloves and apron.

SECTION IX PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL OR LEAK PROCEDURE Observing health hazards described above, ventilate area, wear protective equipment including positive pressure breathing apparatus. Confine spill, wipe up with rags or dry absorbent and transfer to waste drum.

WASTE DISPOSAL METHOD Dispose of in accordance with all applicable government laws and regulations. Waste and contaminated soils/materials from spill cleanup are U210 Hazardous waste per 40 CFR261.33 and must be disposed of accordingly under RCRA.

STORAGE AND HANDLING PRECAUTIONS Store in a cool, dry area away from incompatibles above.

OTHER PRECAUTIONS Do not wear contact lenses while using. KEEP AWAY FROM CHILDREN AND ANIMALS. Do not puncture or incinerate containers.

HAZARD INFORMATION LABEL DATA

HAZARD CODE	FLAMMABILITY	REACTIVITY
4- Extreme		
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