

# ITEM: 4CUR8 - Brake Parts Cleaner 22oz Compliant

PICK\_REQ: 1086851702

MATERIAL SAFETY DATA SHEET (MSDS)

MSDS: B4547

**This MSDS should be attached or kept with the respective product with which it is associated.**

MATERIAL SAFETY DATA SHEET - B4547

Associated Grainger Item: 4CUR8 - Brake Parts Cleaner 22oz Compliant

MONDAY, OCTOBER 27, 2008

MSDS - MATERIAL SAFETY DATA SHEET

PRODUCT NAME: ULTRA LOW VOC BRAKE CLEANER

MSDS NO.: M710

## 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 POISON CONTROL CENTER

EMERGENCY TELEPHONE NUMBER: 303-623-5716

EMERGENCY RESTRICTIONS:

PRODUCT NAME: ULTRA LOW VOC BRAKE CLEANER

MSDS NO.: M710

ISSUE DATE: 10/27/2008

SUPERSEDES DATE: 03/02/2004

## II. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

**ANGER:**  
EXTREMELY FLAMMABLE. LIQUID AND VAPOR MAY CAUSE A FLASH FIRE. HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. EYE AND SKIN IRRITANT. CONTENTS UNDER PRESSURE.

LEVEL 2 AEROSOL

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: INHALATION, INGESTION AND EYE/SKIN CONTACT

HEALTH HAZARDS (ACUTE AND CHRONIC):  
THIS MATERIAL SHORTENS THE TIME OF ONSET OR WORSENS THE LIVER AND KIDNEY DAMAGE INDUCED BY OTHER CHEMICALS.

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:  
INHALATION OF HIGH CONCENTRATIONS, AS COULD OCCUR IN ENCLOSED SPACES OR DURING DELIBERATE ABUSE, MAY BE ASSOCIATED WITH CARDIAC ARRHYTHMIAS. SYMPATHOMIMETIC DRUGS MAY INITIATE CARDIAC ARRHYTHMIAS IN PERSONS EXPOSED. THIS MATERIAL CONTAINS A SUBSTANCE(S) THAT IS AN ASPIRATION HAZARD. POTENTIAL DANGER FROM ASPIRATION MUST BE WEIGHED AGAINST POSSIBLE ORAL TOXICITY WHEN DECIDING WHETHER TO INDUCE VOMITING. PRE-EXISTING DISORDERS OF THE FOLLOWING ORGANS (OR ORGAN SYSTEMS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL:  
SKIN, LUNG, KIDNEY, AUDITORY SYSTEM. INDIVIDUALS WITH PRE-EXISTING HEART DISORDERS MAY BE MORE SUSCEPTIBLE TO ARRHYTHMIAS IF EXPOSED.

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
2-PROPANONE		67-64-1	60.0-100.0
CARBON DIOXIDE	124-38-9	7.0-13.0	

## IV. FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

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. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.

INHALATION:

REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT GIVE OXYGEN AND 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:  
ALCOHOL RESISTANT FOAM, CARBON DIOXIDE, DRY CHEMICAL

UNSUITABLE EXTINGUISHING MEDIA:  
WATER MAY BE INEFFECTIVE FOR EXTINGUISHMENT UNLESS USED UNDER FAVORABLE CONDITIONS BY EXPERIENCED.

PRODUCTS OF COMBUSTION: MAY FORM CARBON DIOXIDE AND CARBON MONOXIDE.

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 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:

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:

ELIMINATE ALL IGNITION SOURCES. PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. 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. DO NOT USE OR STORE NEAR FIRE, SPARKS, OR OPEN FLAME. DO NOT PUNCTURE OR INCINERATE CONTAINER. EXPOSURE TO TEMPERATURES ABOVE 120 DEG. MAY CAUSE CONTAINER TO VENT, RUPTURE, OR BURST.

STORAGE PRECAUTIONS:

IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH APPROVED RESPIRATOR TO PREVENT OVER-EXPOSURE.

## VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	OSHA PEL	ACGIH TLV	OTHER LIMITS
2-PROPANONE		1000 PPM	750 PPM NOT AVAILABLE
CARBON DIOXIDE	N/AV	5000 PPM	NOT AVAILABLE

ENGINEERING CONTROLS:

SEE SECTION ABOVE FOR APPLICABLE EXPOSURE LIMITS. IN RESTRICTED AREAS, USE APPROVED CHEMICAL/MECHANICAL FILTERS DESIGNED TO REMOVE A COMBINATION OF PARTICLES AND VAPOR. IN CONFINED AREAS, USE APPROVED AIR LINE TYPE RESPIRATOR OR HOOD. A SELF-CONTAINED BREATHING APPARATUS IS REQUIRED FOR VAPOR CONCENTRATIONS ABOVE TLV LIMITS.

PERSONAL PROTECTIVE EQUIPMENT:

MAINTAIN ADEQUATE VENTILATION. AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. FOR PROLONGED EXPOSURE WEAR PROTECTIVE SAFETY GLASSES, GLOVES, AND APRON.

## IX. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 133 DEG. F

MELTING POINT: N/A

BOILING RANGE: N/D

FREEZING POINT: -139 DEG. F

SOLUBILITY IN WATER: SOLUBLE

EVAPORATION RATE (BUTYL ACETATE = 1): >1

FLASH POINT: -4 DEG. F

FLASH POINT METHOD: TCC

ODOR THRESHOLD: N/D

APPEARANCE AND ODOR: CLEAR LIQUID SPRAY WITH AROMATIC ODOR

VAPOR DENSITY (AIR = 1): >1

VAPOR PRESSURE (MMHg.): 185 @ 65 DEG. F

pH RANGE: N/A

PARTITION COEFFICIENT: N/D

DECOMPOSITION TEMP: N/D

AUTO-IGNITION TEMP: 869 DEG. F

LOWER EXPLOSIVE LIMIT: 2.6  
UPPER EXPLOSIVE LIMIT: 12.8

SPECIFIC GRAVITY (H2O = 1): 0.88

OTHER INFORMATION:  
VOC CONTENT: 0%

X. STABILITY AND REACTIVITY

STABILITY: PRODUCT IS STABLE.

CONDITIONS TO AVOID: SEE INCOMPATIBLE MATERIALS BELOW

INCOMPATIBLE MATERIALS:  
AVOID CONTACT WITH STRONG OXIDIZER, ACIDS, ALKALIS, REDUCING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE.

POSSIBILITY OF HAZARDOUS REACTIONS: WILL NOT OCCUR

XI. TOXICOLOGICAL INFORMATION

N/D

XII. ECOLOGICAL INFORMATION

N/D

XIII. DISPOSAL CONSIDERATIONS

DISPOSAL:  
THIS CONTAINER MAY BE RECYCLED IN AEROSOL RECYCLING CENTERS WHEN EMPTY.  
BEFORE OFFERING FOR RECYCLING, EMPTY THE CAN BY USING THE PRODUCT ACCORDING  
TO THE LABEL. DO NOT PUNCTURE!  
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 HAZARD CLASS: ORM-D  
SHIPPING NAME: CONSUMER COMMODITY

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):  
SHIPPING NAME: AEROSOLS  
CLASS: 2.2  
UN NUMBER: UN 1950

INTERNATIONAL:

ICAO/IATA:  
UN NUMBER: UN 1950  
SHIPPING NAME: AEROSOLS  
CLASS: 2.2

IMDG:  
UN NUMBER: UN 1950  
SHIPPING NAME: AEROSOLS  
CLASS: 2.2  
EMS: F-D, S-U

XV. REGULATORY INFORMATION

SARA 313 REPORTABLE CHEMICALS: NONE

USA TSCA: ALL CHEMICALS USED ARE LISTED ON THE TSCA INVENTORY.

WARNING:  
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO  
CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

PRODUCT IS COMPLIANT WITH SCAQMD RULE 1171.

STATE RTK CHEMICALS:

2-PROPANONE

67-64-1

XVI. OTHER INFORMATION

CHEMICAL STATE:

(X) LIQUID  
( ) GAS  
( ) SOLID

CHEMICAL TYPE:  
( ) PURE  
(X) MIXTURE

HAZARD CATEGORY:  
(X) ACUTE  
( ) CHRONIC  
(X) FIRE  
(X) PRESSURE  
( ) REACTIVE

NFPA:  
HEALTH 2  
FIRE 4  
REACTIVITY 0  
SPECIAL

HEALTH 2  
FLAMMABILITY 4  
PHYSICAL HAZARD 0  
PERS. PROTECTION H

ADDITIONAL MANUFACTURER WARNINGS:  
DO NOT USE 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.

HAZARD MATERIAL WARNING SHEET (HAZMAT)

When shipment is complete, retain for daily Hazmat audit

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GRAINGER SHIPPING INFORMATION

STOCK # : 4CUR8
MSDS # : B4547
FREIGHT CODE : 0858
DOT PROPER SHIP NAME : CONSUMER COMMODITY, ORM-D FLASHPOINT -20 DGS C, -4 DGS F

FLASHPOINT : -20 DEGREES CELSIUS, -4 DEGREES FAHRENHEIT

UPS RESTRICTIONS :

HAZARDOUS CLASS NUMBER : ORM-D
UN ID # :
PACKING GROUP :
SHIPPING LABEL : Consumer Commodity ORM-D

LIMITED QUANTITY : YES
CARTON INSTRUCTIONS : CAN REPACK IN GRAINGER S CARTON
DOT/UPS EXEMPTION NO. :
COMMENTS : HAZARDOUS MATERIAL. DO NOT SHIP AIR!!
SHIPPING-PAPERS :

PLACARD OFFERED ? YES ( ) NO ( ) PLEASE MARK ONE

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