Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **High Mileage Engine Flush**

Product Number (s): **05375**

Manufactured By:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

General Information	(215) 674-4300
Technical Assistance	(800) 521-3168
Customer Service	(800) 272-8963
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Light amber liquid, petroleum odor

DANGER
Flammable. Harmful or Fatal if Swallowed. Eye Irritant.

As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Potential Health Effects:

EYE:	Contact with liquid or vapor may cause moderate irritation.
SKIN:	May cause skin irritation with prolonged or repeated contact. Defatting of the skin, redness, and rashes are possible effects. Practically non-toxic if absorbed following a single exposure.
INHALATION:	Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure and death.
INGESTION:	Ingestion may cause gastrointestinal disturbance, including irritation, nausea, vomiting and diarrhea. The major health threat of ingestions occurs from the danger of aspiration of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia, severe lung damage and even death.
CHRONIC EFFECTS:	Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.
TARGET ORGANS:	Central nervous system

Medical Conditions Aggravated by Exposure:

Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis.

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Petroleum Distillate	68476-34-6	60 - 70
Hydrotreated naphthenic base oil blend	64742-52-5 / 64742-53-6	10 - 20
Xylene	1330-20-7	5 - 10
2-Butoxy Ethanol	111-76-2	5
Solvent-refined paraffinic base oil	64741-88-4	3 - 8
Acetone	67-64-1	< 5
Ethylbenzene	100-41-4	< 2

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Do NOT induce vomiting. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Mouth can be rinsed to dissipate the taste.

Note to Physicians: Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammable Properties: In accordance with OSHA definitions, this product is a flammable liquid.

Flash Point:	75 F (TCC)	Upper Explosive Limit:	7.5
Autoignition Temperature:	494 F	Lower Explosive Limit:	0.6

Suitable Extinguishing Media: Use extinguishers rated for Class B fires, such as dry chemical, Halon, fire fighting foam or CO2.

Products of Combustion: Oxides of carbon

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Methods for Containment & Clean-up: Remove all sources of ignition. Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Keep away from heat, sparks and open flame. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion. Provide adequate ventilation during use. Do not breathe vapors. Wash hands after use.

Storage Procedures: Store in a cool dry area out of direct sunlight. Store in a well ventilated area. Keep out of reach of children.

Aerosol Storage Level: NA

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Petroleum Distillate	5	NE	100	NE	NE		mg/m^3
Hydrotreated naphthenic base oil blend	5	NE	0.2	NE	NE		mg/m^3
Xylene	100	150(v)	100	150	NE		ppm
2-Butoxy Ethanol	50	NE	20	NE	NE		ppm
Solvent-refined paraffinic base oil	5	NE	0.2	NE	NE		mg/m^3
Acetone	1000	1000(v)	500	750	NE		ppm
Ethylbenzene	100	125(v)	100	125	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

Engineering Controls: Area should have ventilation to provide fresh air. Use local exhaust to prevent accumulation of vapors. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations

Respiratory Protection: None required for normal work where adequate ventilation is provided. Use NIOSH-approved self-contained positive pressure respirators in low circulation areas and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile, neoprene or PVC. Also , use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid
Color: Light amber
Odor: Petroleum
Specific Gravity: 0.8607
Initial Boiling Point: 320 F
Freezing Point: ND
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: < 1 (ether = 1)
Solubility: Negligible in water
pH: NA
Volatile Organic Compounds: wt %: 40 g/L: 344.3 lbs./gal: 2.87

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: temperature extremes, sources of ignition

Incompatible Materials: Strong oxidizers, Viton®, Fluorel®

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, non-combusted hydrocarbons (smoke)

Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

ACUTE EFFECTS

Component	Test	Result	Route	Species
Petroleum Distillate	LD50	9 ml/kg	Oral	Rat
Petroleum Distillate	LD50	> 5 ml/kg	Dermal	Rabbit
2-Butoxy Ethanol	LD50	470 mg/kg	Oral	Rat
2-Butoxy Ethanol	LC50	2.21 mg/L/4H	Inhalation	Rat
Ethylbenzene	LC50	17.2 mg/L/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	Ethylbenzene	Hazard Communication Carcinogen
IARC:	Ethylbenzene	Group 2B – Possibly Carcinogenic
NTP:	None listed	

Mutagenicity: Petroleum Distillate — This material has been positive in a mutagenicity study.

Other: IARC has determined in reviewing cancer prevalence of exposed workers that the carcinogenic activity of refined oils is related to the severity of processing of the base oil. The base oils contained in this product have been highly refined by a variety of processes including solvent extraction,

hydrotreating, and dewaxing to remove aromatics, thus reducing carcinogenic potential.

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity:	Xylene - 96 Hr LC50 fathead minnow: 13.4 mg/L (flow-through) 2-Butoxy Ethanol - 24 Hr LC50 water flea: 1720 mg/L
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	Spills may penetrate the soil causing groundwater contamination. This material may accumulate in sediments.

Section 13: Disposal Considerations

Disposal: This product is a RCRA hazardous waste for the characteristic of flammability: D001 (See 40 CFR Part 261.20 – 261.33)

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Consumer Commodity, ORM-D

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: Xylene (100 lbs), Acetone (5000 lbs), Ethylbenzene (1000 lbs)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:	
Fire Hazard	Yes
Reactive Hazard	No
Release of Pressure	No
Acute Health Hazard	Yes
Chronic Health Hazard	Yes

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Xylene (7.2%), 2-Butoxyethanol (5%), Ethylbenzene (1.8%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): Xylene, Ethylbenzene

State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: Ethylbenzene, Naphthalene (< 0.01%)

State Right to Know:

New Jersey:	1330-20-7, 111-76-2, 67-64-1, 100-41-4
Pennsylvania:	1330-20-7, 111-76-2, 67-64-1, 100-41-4
Massachusetts:	1330-20-7, 111-76-2, 67-64-1, 100-41-4, 64742-53-6
Rhode Island :	1330-20-7, 111-76-2, 67-64-1, 100-41-4

Additional Regulatory Information: None

Section 16: Other Information

NFPA:	Health:	2	Flammability:	3	Reactivity:	0	
HMIS:	Health:	2	Flammability:	3	Reactivity:	0	PPE: B

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CRC #: 611B
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Changes since last revision: MSDS reformatted in accordance with ANSI Z400.1-2004

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

CAS:	Chemical Abstract Service	NA:	Not Applicable
ppm:	Parts per Million	ND:	Not Determined
TCC:	Tag Closed Cup	NE:	Not Established
PMCC:	Pensky-Martens Closed Cup	g/L:	grams per Liter
PPE:	Personal Protection Equipment	lbs./gal:	pounds per gallon
TWA:	Time Weighted Average	STEL:	Short Term Exposure Limit
OSHA:	Occupational Safety and Health Administration		
ACGIH	American Association of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		