Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **Mass Air Flow Sensor Cleaner** (Aerosol)

Product Number (s): **05110**

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: Clear, colorless liquid with alcohol odor

DANGER

Extremely flammable. Harmful or fatal if swallowed. Contents under pressure.

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

Potential Health Effects:

EYE:	May cause mild irritation including stinging and redness, but does not injure eye.
SKIN:	Single, brief exposures may cause mild irritation. Frequent or prolonged contact may cause more severe irritation, defatting of the skin, and dermatitis.
INHALATION:	High vapor concentrations are irritating to the respiratory tract and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. May cause peripheral nervous system disorder and/or damage.
INGESTION:	Low order of toxicity by ingestion. Main hazard is aspiration into the lungs during swallowing or vomiting. Small amounts aspirated into the respiratory system may cause bronchopneumonia or pulmonary adema, possible progressing to death.
CHRONIC EFFECTS:	Overexposure to n-hexane may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in the arms and legs.
TARGET ORGANS:	central nervous system, peripheral nervous system, respiratory system

Medical Conditions Aggravated by Exposure: skin and respiratory conditions

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Hexane isomers	various	75 - 85
n-Hexane	110-54-3	6.1
COzol® 204	Proprietary	5 - 10
Carbon dioxide	124-38-9	3 - 8

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. Contact a physician immediately.

Note to Physicians: Treat symptomatically. Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point:	< 0 F (TCC)	Upper Explosive Limit:	9.0
Autoignition Temperature:	489 F	Lower Explosive Limit:	1.7

Suitable Extinguishing Media: Class B fire extinguishers, dry chemical, foam or CO2

Products of Combustion: fumes, smoke and carbon monoxide

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 fog or spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition. Do not spray water directly on fire; product will float and could be reignited on surface of water.

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: Dike area to contain spill. Remove all sources of ignition. 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: Use proper grounding and bonding procedures for transferring materials. Do not use product near any source of ignition. Do not touch container to electrical sources as container will conduct electricity. Avoid contact with eyes and skin. Avoid breathing vapors.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Hexane isomers	500(v)	1000(v)	500	1000	NE		ppm
n-Hexane	500	NE	50(s)	NE	NE		ppm
COzol® 204	200	250 (v)	200	250	NE		ppm
Carbon dioxide	5000	30000(v)	5000	30000	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 a NIOSH-approved cartridge respirator with an organic vapor cartridge if vapors exceed exposure limits. Use a self-contained breathing apparatus in confined spaces 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, PVC or Viton. 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: clear, colorless

Odor: alcohol
Specific Gravity: 0.6699
Initial Boiling Point: 140 F
Freezing Point: < -76 F
Vapor Pressure: 160 mmHg @ 68 F
Vapor Density: > 1 (air = 1)
Evaporation Rate: 9 (Butyl acetate = 1)
Solubility: negligible in water
pH: NA
Volatile Organic Compounds: wt %: 95 g/L: 636.4 lbs./gal: 5.3

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: sources of ignition, temperature extremes

Incompatible Materials: strong oxidizers

Hazardous Decomposition Products: oxides of carbon

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
n-hexane	LD50	28710 mg/kg	Oral	Rat
n-hexane	LD50	3000 mg/kg	Dermal	Rabbit
n-hexane	LC50	48000 ppm/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No information available

Section 12: Ecological Information

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

Ecotoxicity:	n-hexane - 48 Hr EC50 water flea: 3.87 mg/L 96 Hr LC50 Lepomis macrochirus: 4.12 mg/L
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	No information available

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001 (See 40 CFR Part 261.20 – 261.33).
Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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: n-hexane (5000 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	Yes
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:
n-hexane (6.1%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): n-hexane

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: NONE

State Right to Know:

New Jersey:	75-83-2, 110-54-3, 79-29-8, 124-38-9
Pennsylvania:	107-83-5, 75-83-2, 110-54-3, 79-29-8, 67-56-1, 124-38-9
Massachusetts:	107-83-5, 75-83-2, 110-54-3, 79-29-8, 124-38-9
Rhode Island :	110-54-3, 124-38-9

Additional Regulatory Information: None

Section 16: Other Information

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

Prepared By: Michelle Rudnick
CRC #: 599C
Revision Date: 12/06/2007

Changes since last revision: Correction made to Evaporation Rate

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 Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **Di-Electric Grease**

Product Number (s): **05105**

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: Opaque white gel, low odor

CAUTION:
Contents Under Pressure

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

Potential Health Effects:

EYE:	May cause mild, temporary irritation.
SKIN:	For hypersensitive persons, may irritate the skin after prolonged periods of contact.
INHALATION:	Viscous nature may block breathing passages if inhaled.
INGESTION:	May cause diarrhea.
CHRONIC EFFECTS:	None known
TARGET ORGANS:	None known

Medical Conditions Aggravated by Exposure:

pre-existing skin sensitivities

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Silicone gel mixture	63148-62-9 / 7631-86-9	> 95
Nitrogen	7727-37-9	< 5

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes or until all residual material is gone. 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. Clear air passage if blocked. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Wash out mouth immediately. Consult physician.

Note to Physicians: Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammable Properties: As defined by OSHA, this product is not flammable.

Flash Point:	> 500 F (COC)	Upper Explosive Limit:	ND
Autoignition Temperature:	> 600 F	Lower Explosive Limit:	ND

Suitable Extinguishing Media: Foam, dry powder, carbon dioxide, sand, earth and water mist. Do not use water jet.

Products of Combustion: Smoke, airborne soot, hydrocarbons and oxides of carbon and silicone.

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: Scrape up the bulk of the material and then wipe up the remainder with a

cloth. To prevent a slippery surface or walking hazard, pick up the remaining residue with diatomaceous earth.

Section 7: Handling and Storage

Handling Procedures: Wash hands after use and before handling food items.

Storage Procedures: Store in a cool dry area out of direct sunlight. Pressurized cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: I

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Silicone gel mixture	NE	NE	NE	NE	NE		
Nitrogen	NE	NE	NE	NE	NE		
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. 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 a self-contained breathing apparatus in confined spaces and for emergencies.

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

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

Section 9: Physical and Chemical Properties

Physical State: gel
Color: opaque white
Odor: low
Specific Gravity: 1.06
Initial Boiling Point: > 600 F
Freezing Point: ND
Vapor Pressure: < 0.01 kPa
Vapor Density: > 5 (air = 1)
Evaporation Rate: < 0.01 (butyl acetate = 1)
Solubility: ND

pH: neutral

Volatile Organic Compounds: wt %: 0 g/L: 0 lbs./gal: 0

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Powerful sources of ignition and extreme temperatures.

Incompatible Materials: Strong inorganic and organic acids, oxidizing agents

Hazardous Decomposition Products: Burning generates smoke, airborne soot, hydrocarbons and oxides of carbon and silicone. Residue mainly comprised of soot and mineral oxides.

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
No information available				

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No information available

Other: None

Section 12: Ecological Information

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

Ecotoxicity: Unlikely to act as a marine pollutant.
Persistence / Degradability: No information available
Bioaccumulation / Accumulation: Bioaccumulation potential is negligible.
Mobility in Environment: No information available

Section 13: Disposal Considerations

Disposal: The dispensed product is not a RCRA hazardous waste. Pressurized containers may be considered a hazardous waste for the characteristic of reactivity with a waste code of D003. (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: None

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	No
Reactive Hazard	No
Release of Pressure	Yes
Acute Health Hazard	No
Chronic Health Hazard	No

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:

None

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

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: NONE

State Right to Know:

New Jersey:	7727-37-9
Pennsylvania:	7727-37-9
Massachusetts:	7727-37-9
Rhode Island :	7727-37-9

Additional Regulatory Information: None

Section 16: Other Information

NFPA:	Health:	0	Flammability:	1	Reactivity:	0		
HMIS:	Health:	0	Flammability:	1	Reactivity:	0	PPE:	B

Prepared By: Michelle Rudnick
CRC #: 113
Revision Date: 3/9/2007

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	COC:	Cleveland Open Cup
ACGIH	American Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **Duster™ Moisture-Free Dust & Lint Remover**

Product Number (s): **05185, 05185-6, 14502**

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:
Expelled product is a clear gas with a faint ethereal odor. Pressurized product is a liquefied gas.

CAUTION
Contents Under Pressure.

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

Potential Health Effects:

EYE: Contact with dispersed gas is not expected to cause negative effects. Contact with liquid product can cause severe irritation, redness, tearing, blurred vision, and possible freeze burns.

SKIN: Contact with dispersed gas is not expected to cause negative effects. Contact with liquid product or concentrated expelled gas can cause frostbite.

INHALATION: Inhalation of dispersed gas is not expected to cause negative effects. Inhalation of concentrated vapor may product anesthetic effects and feeling of euphoria. Prolonged exposure can cause rapid breathing, headache, dizziness, narcosis, and unconsciousness. Deliberately inhaling this product can lead to death from asphyxiation depending on concentration and duration of exposure.

INGESTION: Ingestion of liquid product may cause frostbite to mouth and throat. Liquid product may pose aspiration hazard. This product contains a bittering agent. Direct ingestion of expelled gas or liquid will create an extreme bitter taste in the mouth.

CHRONIC EFFECTS: Unknown

TARGET ORGANS: None known

Medical Conditions Aggravated by Exposure: None known

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
1,1-Difluoroethane (HFC-152a)	75-37-6	> 99

Section 4: First Aid Measures

Eye Contact: For liquid contact, immediately flush with plenty of water for 15 minutes. Call a physician if frostbite occurs.

Skin Contact: For liquid contact, warm area gradually and get medical attention if there is evidence of tissue damage. Flush area with plenty of water. Treat as frostbite.

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. Contact a physician immediately.

Note to Physicians: None

Section 5: Fire-Fighting Measures

Flammable Properties: In accordance with aerosol flammability definitions, this product is non-flammable. However, the pressurized liquefied gas is extremely flammable. Using this product in an upside-down position, or shaking while using, can cause liquid product to be expelled. The below information applies to the liquefied gas.

Flash Point:	- 58 F (COC)	Upper Explosive Limit:	16.9%
Autoignition Temperature:	ND	Lower Explosive Limit:	3.9%

Suitable Extinguishing Media: Dry chemical extinguisher (B-C), water

Products of Combustion: oxides of carbon, hydrogen fluoride

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. Stop the release of material if possible. 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: Eliminate sources of ignition. Ventilate the area with plenty of fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. If liquid is present, 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: Vapors are heavier than air and may travel along the ground. Certain vapor concentrations may be ignited by sources of ignition. Deliberately concentrating and inhaling the vapors of this product may result in death.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing. Keep out of reach of children.

Aerosol Storage Level: I

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
1,1-Difluoroethane (HFC-152a)	NE	NE	NE	NE	1000	AIHA	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 a NIOSH-approved cartridge respirator with organic vapor cartridge if vapors exceed exposure limits. Use a self-contained breathing apparatus in confined spaces 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 insulated rubber. Also, use impervious clothing if there is potential for contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: dispensed product is a gas; pressurized product is a liquefied gas
Color: colorless
Odor: ethereal
Specific Gravity: 0.909
Initial Boiling Point: - 13 F
Freezing Point: ND
Vapor Pressure: 62.5 psig @ 70 F

Vapor Density: 2.4 (air = 1)
Evaporation Rate: > 1 (ether = 1)
Solubility: 0.28% (in water) at 70 F
pH: NA
Volatile Organic Compounds: wt %: 0 (exempt) g/L: 0 lbs./gal: 0

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: High heat, spark and open flame.

Incompatible Materials: Alkali or alkaline earth metals (Al, Zn)

Hazardous Decomposition Products: Hydrofluoric acid and carbonyl halides

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
1,1-difluoroethane	LC50	977 g/m^3/2H	Inhalation	Mouse

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No information available

Other: None

Section 12: Ecological Information

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

Ecotoxicity: No information available
Persistence / Degradability: No information available
Bioaccumulation / Accumulation: No information available
Mobility in Environment: No information available

Section 13: Disposal Considerations

Disposal: This product, as packaged, is a RCRA hazardous waste for flammability and reactivity. Waste codes would include D001 & D003. (See 40 CFR Part 261.20 – 261.33)
Dispensed product is not a hazardous waste. Empty containers may be recycled.

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): 1,1-Difluoroethane, R152A, 2.1, UN1030

Special Provisions: DOT-SP 11516: In accordance with this special permit, this product is not subject to labeling requirements unless offered for transportation by air. This product is not subject to placarding requirements. Outside packaging must be marked with proper shipping description and 'DOT-SP 11516'.

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: None

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	Yes
Acute Health Hazard	Yes
Chronic Health Hazard	No

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:
None

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

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: None

State Right to Know:

New Jersey:	75-37-6
Pennsylvania:	75-37-6
Massachusetts:	75-37-6
Rhode Island :	75-37-6

Additional Regulatory Information: This product contains a bittering agent to help to prevent inhalant abuse.

Section 16: Other Information

NFPA:	Health:	1	Flammability:	4	Reactivity:	1	
HMIS:	Health:	1	Flammability:	4	Reactivity:	1	PPE: B

Prepared By: Michelle Rudnick
CRC #: 917
Revision Date: 02/29/2008

Changes since last revision: Section 2: Clarification of ingestion effects

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 Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		
AIHA:	American Industrial Hygiene Association		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **NAPA/CRC® Lectra-Motive® Electric Parts Cleaner** (aerosol)

Product Number (s): **091313**

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: Colorless liquid, irritating odor at high concentrations

DANGER
Vapor Harmful. Contents Under Pressure.

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

Potential Health Effects:

EYE:	May cause slight temporary eye irritation. Vapors may irritate the eyes at concentrations of 100 ppm.
SKIN:	Short single exposure may cause skin irritation. Prolonged exposure may cause severe skin irritation, even a burn. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
INHALATION:	Dizziness may occur at concentrations of 200 ppm. Progressively higher levels may also cause nasal irritation, nausea, incoordination, and drunkenness. Very high levels or prolonged exposure could lead to unconsciousness and death.
INGESTION:	Single dose oral toxicity is considered to be extremely low. Swallowing large amounts may cause injury if aspirated into the lungs. This may be rapidly absorbed through the lungs and result in injury to other body systems.
CHRONIC EFFECTS:	Repeated contact with skin may cause drying or flaking of skin. Excessive or long term exposure to vapors may increase sensitivity to epinephrine and increase myocardial irritability.
TARGET ORGANS:	Central nervous system. Possibly liver and kidney.

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Tetrachloroethylene (PERC)	127-18-4	> 95
Carbon Dioxide	124-38-9	< 5

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. Call a physician immediately.

Note to Physicians: Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. If burn is present, treat as any thermal burn, after decontamination. Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is nonflammable.

Flash Point:	None (TCC)	Upper Explosive Limit:	None
Autoignition Temperature:	None	Lower Explosive Limit:	None

Suitable Extinguishing Media: This material does not burn. Use extinguishing agent suitable for surrounding fire.

Products of Combustion: Hydrogen chloride. Trace amounts of phosgene, and chlorine.

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. Do not breathe vapors.

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: 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: Vapors of this product are heavier than air and will collect in low areas. Make sure ventilation removes vapors from low areas. Do not eat, drink or smoke while using this product.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: I

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Tetrachloroethylene	100	N.E.	25	100	N.E.		ppm
Carbon dioxide	5000	30000 v	5000	30,000	N.E.		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. Provide proper exhaust to remove vapors from low areas. 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 PVA, Teflon or Viton. 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: colorless
Odor: irritating odor
Specific Gravity: 1.619
Initial Boiling Point: 250 F
Freezing Point: ND
Vapor Pressure: 13 mmHg @ 68 F
Vapor Density: 5.76 (air = 1)

Evaporation Rate: > 1 (ether = 1)
Solubility: 0.015 g/ 100 g @ 77 F in water
pH: NA
Volatile Organic Compounds: wt %: 0 g/L: 0 lbs./gal: 0

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Avoid direct sunlight or ultraviolet sources. Avoid open flames, welding arcs, and other high temperature sources which induce thermal decomposition.

Incompatible Materials: Avoid contact with metals such as: aluminum powders, magnesium powders, potassium, sodium, and zinc powder. Avoid unintended contact with amines. Avoid contact with strong bases and strong oxidizers.

Hazardous Decomposition Products: Hydrogen chloride, trace amounts of chlorine and phosgene

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
tetrachloroethylene	LD50	> 10 g/kg	dermal	rabbit
tetrachloroethylene	LD50	2629 mg/kg	oral	rat
tetrachloroethylene	LC50	5200 mg/kg/4H	inhalation	mouse

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	Tetrachloroethylene	Hazard communication carcinogen
IARC:	Tetrachloroethylene	2A (Probably carcinogenic)
NTP:	Tetrachloroethylene	Reasonably anticipated to be a carcinogen

Mutagenicity: tetrachloroethylene — in vitro studies were negative; animal studies were negative

Other: None

Section 12: Ecological Information

Ecotoxicity: Tetrachloroethylene -- 96 Hr LC50 Rainbow Trout: 5.28 mg/L (static)
96 Hr LC50 Fathead minnow: 13.4 mg/L (flow-through)

Persistence / Degradability: Biodegradation under aerobic conditions is below detectable limits. Biodegradation may occur under anaerobic conditions. Biodegradation rate may increase in soil and/or water with acclimation.

Bioaccumulation / Accumulation: Bioconcentration potential is low (BCF less than 100).

Mobility in Environment: Potential for mobility in soil is medium.

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for toxicity with the following potential waste codes: U210, F001, F002, D039. (See 40 CFR Part 261.20 – 261.33)
Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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: Tetrachloroethylene (100 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	No
Reactive Hazard	No
Release of Pressure	Yes
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:
tetrachloroethylene (97.7%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): tetrachloroethylene

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: Tetrachloroethylene

State Right to Know:

New Jersey:	tetrachloroethylene, carbon dioxide
Pennsylvania:	tetrachloroethylene, carbon dioxide
Massachusetts:	tetrachloroethylene, carbon dioxide
Rhode Island :	tetrachloroethylene, carbon dioxide

Additional Regulatory Information: Notice to California users: Energized equipment use only. Not to be used for motorized vehicle maintenance or their parts.

Section 16: Other Information

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

Prepared By: Michelle Rudnick
CRC #: 491G
Revision Date: 08/01/2008

Changes since last revision: Section 15: Additional Regulatory Information revised

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		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **NAPA/CRC® QD® Electronic Cleaner** (Aerosol)

Product Number (s): **091843**

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) 272-4620
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Clear, colorless liquid with alcohol odor

DANGER

Extremely flammable. Harmful or fatal if swallowed. Contents under pressure.

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

Potential Health Effects:

EYE:	May cause mild irritation including stinging and redness, but does not injure eye.
SKIN:	Single, brief exposures may cause mild irritation. Frequent or prolonged contact may cause more severe irritation, defatting of the skin, and dermatitis.
INHALATION:	High vapor concentrations are irritating to the respiratory tract and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. May cause peripheral nervous system disorder and/or damage.
INGESTION:	Low order of toxicity by ingestion. Main hazard is aspiration into the lungs during swallowing or vomiting. Small amounts aspirated into the respiratory system may cause bronchopneumonia or pulmonary adema, possible progressing to death.
CHRONIC EFFECTS:	Overexposure to n-hexane may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in the arms and legs.
TARGET ORGANS:	central nervous system, peripheral nervous system, respiratory system

Medical Conditions Aggravated by Exposure: skin and respiratory conditions

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Hexane isomers	various	75 - 85
n-Hexane	110-54-3	6.1
Synthetic isoparaffinic hydrocarbon	64741-66-8	5 - 10
Methanol	67-56-1	< 1
Carbon dioxide	124-38-9	3 - 8

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. Contact a physician immediately.

Note to Physicians: Treat symptomatically. Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point:	< 0 F (TCC)	Upper Explosive Limit:	9.0
Autoignition Temperature:	489 F	Lower Explosive Limit:	1.7

Suitable Extinguishing Media: Class B fire extinguishers, dry chemical, foam or CO2

Products of Combustion: fumes, smoke and carbon monoxide

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 fog or spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition. Do not spray water directly on fire; product will float and could be reignited on surface of water.

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: Dike area to contain spill. Remove all sources of ignition. 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: Use proper grounding and bonding procedures for transferring materials. Do not use product near any source of ignition. Do not touch container to electrical sources as container will conduct electricity. Avoid contact with eyes and skin. Avoid breathing vapors.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Hexane isomers	500(v)	1000(v)	500	1000	NE		ppm
n-Hexane	500	NE	50(s)	NE	NE		ppm
Synthetic isoparaffinic hydrocarbon	NE	NE	NE	NE	NE		
Methanol	200	250 (v)	200	250	NE		ppm
Carbon dioxide	5000	30000(v)	5000	30000	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 a NIOSH-approved cartridge respirator with an organic vapor cartridge if vapors exceed exposure limits. Use a self-contained breathing apparatus in confined spaces 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, PVC or Viton. 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: clear, colorless
Odor: alcohol
Specific Gravity: 0.6699
Initial Boiling Point: 140 F
Freezing Point: < -76 F
Vapor Pressure: 160 mmHg @ 68 F
Vapor Density: > 1 (air = 1)
Evaporation Rate: 9 (Butyl acetate = 1)
Solubility: negligible in water
pH: NA
Volatile Organic Compounds: wt %: 95 g/L: 636.4 lbs./gal: 5.3

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: sources of ignition, temperature extremes

Incompatible Materials: strong oxidizers

Hazardous Decomposition Products: oxides of carbon

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
n-hexane	LD50	28710 mg/kg	Oral	Rat
n-hexane	LD50	3000 mg/kg	Dermal	Rabbit
n-hexane	LC50	48000 ppm/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No information available

Section 12: Ecological Information

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

Ecotoxicity:	n-hexane - 48 Hr EC50 water flea: 3.87 mg/L 96 Hr LC50 Lepomis macrochirus: 4.12 mg/L
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	No information available

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001 (See 40 CFR Part 261.20 – 261.33).
Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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: n-hexane (5000 lbs)
methanol (5000 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	Yes
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:
n-hexane (6.1%), methanol (0.9%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): n-hexane, methanol

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: NONE

State Right to Know:

New Jersey:	75-83-2, 110-54-3, 79-29-8, 67-56-1, 124-38-9
Pennsylvania:	107-83-5, 75-83-2, 110-54-3, 79-29-8, 67-56-1, 124-38-9
Massachusetts:	107-83-5, 75-83-2, 110-54-3, 79-29-8, 67-56-1, 124-38-9
Rhode Island :	110-54-3, 67-56-1, 124-38-9

Additional Regulatory Information: None

Section 16: Other Information

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

Prepared By: Michelle Rudnick
CRC #: 599C
Revision Date: 12/06/2007

Changes since last revision: Correction made to Evaporation Rate

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 Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **NAPA/CRC® Throttle Body & Air Intake Cleaner** (aerosol)

Product Number (s): **092400**

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) 272-4620
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Pale yellow to clear liquid; aromatic odor

DANGER

Extremely Flammable. Harmful or Fatal if Swallowed. Vapor Harmful. Eye and Skin Irritant. Contents Under Pressure.

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

Potential Health Effects:

EYE:	Moderate eye irritant. Exposure can cause irritation including stinging, tearing, redness, blurred vision, and swelling of the eyes.
SKIN:	Moderate skin irritant. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of the skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.
INHALATION:	Breathing large amounts of this material may be harmful. Symptoms include irritation of the nose and throat and central nervous system depression (dizziness, drowsiness, weakness, headache, nausea, unconsciousness).
INGESTION:	Swallowing small amounts is not likely to cause harmful effects. Swallowing larger amounts may be harmful as this material may be aspirated into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
CHRONIC EFFECTS:	Unknown
TARGET ORGANS:	liver, kidneys, blood, central nervous system

Medical Conditions Aggravated by Exposure: skin sensitivities, lung conditions

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Acetone	67-64-1	50 - 60
Toluene	108-88-3	5 - 15
Xylene	1330-20-7	5 – 10
Ethylbenzene	100-41-4	2.2
Methanol	67-56-1	< 2
Diacetone alcohol	123-42-2	< 2
Liquefied petroleum gas	68476-86-8	15 - 25

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: Seek medical attention. Do not induce vomiting unless instructed by medical personnel. Have victim drink a glass of water if conscious.

Note to Physicians: This material is an aspiration hazard. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. Inhalation of high concentrations of this material may be associated with cardiac arrhythmias.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point:	< 0 F (TCC)	Upper Explosive Limit:	12.8
Autoignition Temperature:	869 F	Lower Explosive Limit:	2.6

Suitable Extinguishing Media: dry chemical, carbon dioxide, alcohol-resistant foam, class B extinguishers

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. Vapors are heavier than air and will accumulate near the ground. 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: Eliminate 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: Do not use near potential sources of ignition. Do not use on energized equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid inhaling vapors.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Acetone	1000	NE	500	750	NE		ppm
Toluene	200	300 (c)	20	NE	NE		ppm
Xylene	100	NE	100	150	NE		ppm
Ethylbenzene	100	NE	100	125	NE		ppm
Methanol	200	NE	200	250 (s)	NE		ppm
Diacetone alcohol	50	NE	50	NE	NE		ppm
Liquefied petroleum gas	1000	NE	1000	NE	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. 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. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces 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, PVA, or neoprene. 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: pale yellow to clear
Odor: aromatic
Specific Gravity: 0.8151
Initial Boiling Point: 132 F
Freezing Point: ND
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: > 1 (butyl acetate = 1)
Solubility: slightly soluble in water
pH: NA
Volatile Organic Compounds: wt %: 44.6 g/L: 363.5 lbs./gal: 3.03

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Sources of ignition; temperature extremes

Incompatible Materials: Acids, alkalis, reducing agents, strong oxidizing agents

Hazardous Decomposition Products: Oxides of carbon, various hydrocarbons

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
Acetone	LD50	5800 mg/kg	Oral	Rat
Acetone	LC50	16,000 ppm/4H	Inhalation	Rat
Acetone	LD50	20,000 mg/kg	Dermal	Rabbit
Xylene	LD50	3400 mg/kg	Oral	Rat
Xylene	LC50	5000 ppm/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	Ethylbenzene	Group 2B – Possibly carcinogenic to humans

NTP: None listed

Mutagenicity: No information available

Section 12: Ecological Information

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

Ecotoxicity:	Acetone – 48H LC50 Daphnia: 10 mg/l
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	No information available

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with the following potential waste code(s): D001, F003, F005 (See 40 CFR Part 261.20 – 261.33). Aerosol containers should be fully emptied and depressurized before disposal.

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: Acetone (5000 lbs), Toluene (1000 lbs), Methanol (5000 lbs), Xylene (100 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	Yes
Acute Health Hazard	Yes
Chronic Health Hazard	No

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:
Toluene (10%), Methanol (< 2%), Xylene (< 10%), Ethylbenzene (2.2%)

Clean Air Act:
Section 112 Hazardous Air Pollutants (HAPs): Toluene, Methanol, 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: Toluene, Ethylbenzene

State Right to Know:

New Jersey:	67-64-1, 108-88-3, 67-56-1, 1330-20-7, 123-42-2, 100-41-4
Pennsylvania:	67-64-1, 108-88-3, 67-56-1, 1330-20-7, 123-42-2, 100-41-4
Massachusetts:	67-64-1, 108-88-3, 67-56-1, 1330-20-7, 123-42-2, 100-41-4
Rhode Island :	67-64-1, 108-88-3, 67-56-1, 1330-20-7, 123-42-2, 100-41-4

Additional Regulatory Information: In states with consumer products VOC regulations, this product is compliant as a 'Fuel-injection Air Intake Cleaner'.

Section 16: Other Information

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

Prepared By: Michelle Rudnick
CRC #: 464F
Revision Date: 12/03/2007

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 Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **NAPA/CRC® Battery Cleaner with Indicator**

Product Number (s): **095023**

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: Yellow foam, no odor

CAUTION
Contents under Pressure.

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

Potential Health Effects:

EYE:	May cause mild irritation including redness and burning.
SKIN:	Prolonged or repeated contact can cause irritation and defatting of the skin.
INHALATION:	Inhalation of a small amount is not expected to cause health effects. Prolonged exposure may cause dizziness or throat irritation.
INGESTION:	Ingestion of a small amount is not expected to cause health effects. Ingestion of a larger amount may cause irritation to gastrointestinal tract
CHRONIC EFFECTS:	None known
TARGET ORGANS:	None known

Medical Conditions Aggravated by Exposure:

Pre-existing skin or eye disorders

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Water	7732-18-5	80 - 90
2-Butoxyethanol	111-76-2	2.9
Sodium bicarbonate	144-55-8	5 - 10
Detergent	various	< 1
Liquefied Petroleum Gas	68476-86-8	3 - 8

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. Call a physician.

Note to Physicians: This product contains 2-Butoxyethanol which, if ingested in significant quantities, may result in red blood cell hemolysis.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is non-flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point:	None	Upper Explosive Limit:	ND
Autoignition Temperature:	None	Lower Explosive Limit:	ND

Suitable Extinguishing Media: Use extinguishing agents appropriate for surrounding fire.

Products of Combustion: None

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: 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: Use with adequate ventilation. Avoid contact with skin and eyes. Wash hands after use. Do not expose aerosol containers to heat or flame. Do not incinerate container.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: I

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Water	NE	NE	NE	NE	NE		
2-Butoxyethanol	50 (s)	NE	20	NE	NE		ppm
Sodium bicarbonate	NE	NE	NE	NE	NE		
Detergent	NE	NE	NE	NE	NE		
Liquefied Petroleum Gas	1000	NE	1000	NE	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. 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: yellow foamy
Odor: no odor
Specific Gravity: 1.04
Initial Boiling Point: ~ 212 F
Freezing Point: ~ 32 F
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: < 1 (ether = 1)
Solubility: soluble in water
pH: 8.5
Volatile Organic Compounds: wt %: 2.9 g/L: 30.16 lbs./gal: 0.25

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Keep away from heat, direct sunlight, open flames or sparks. Dropping of containers may cause bursting.

Incompatible Materials: Strong oxidizers

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

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
2-Butoxyethanol	LC50	450 ppm/4H	Inhalation	Rat
2-Butoxyethanol	LD50	470 mg/kg	Oral	Rat
2-Butoxyethanol	LD50	220 mg/kg	Dermal	Rabbit

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No information

Other: No information

Section 12: Ecological Information

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

Ecotoxicity:	2-Butoxyethanol	96 Hr LC50, Bluegill sunfish: 1490 mg/L 24 Hr LC50, daphnia: 1720 mg/L
Persistence / Degradability:	No information	
Bioaccumulation / Accumulation:	No information	
Mobility in Environment:	No information	

Section 13: Disposal Considerations

Disposal: The liquid product is not a RCRA hazardous waste. Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled or discarded.

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: None

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	No
	Reactive Hazard	No
	Release of Pressure	Yes
	Acute Health Hazard	Yes
	Chronic Health Hazard	No

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:
2-Butoxyethanol (glycol ethers): 2.9%

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

State Regulations

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

NONE

State Right to Know:

New Jersey:	111-76-2, 68476-86-8
Pennsylvania:	111-76-2, 68476-86-8
Massachusetts:	111-76-2, 68476-86-8
Rhode Island :	111-76-2, 68476-86-8

Additional Regulatory Information: None

Section 16: Other Information

NFPA:	Health:	1	Flammability:	0	Reactivity:	0		
HMIS:	Health:	1	Flammability:	0	Reactivity:	0	PPE:	B

Prepared By: Michelle Rudnick
CRC #: 530C
Revision Date: 12/15/2005

Changes since last revision: New

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		

Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: **NAPA/CRC® Battery Terminal Protector** (Aerosol)

Product Number (s): **095046**

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) 272-4620
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Dark red viscous liquid with petroleum solvent odor

DANGER

Extremely flammable. Harmful or fatal if swallowed. Contents under pressure.

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

Potential Health Effects:

EYE:	May cause mild to moderate irritation including stinging, tearing and redness.
SKIN:	Single, brief exposures may cause mild irritation. Frequent or prolonged contact may cause more severe irritation, defatting of the skin, and dermatitis.
INHALATION:	High vapor concentrations are irritating to the mucous membranes and upper respiratory tract and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death. May cause peripheral nervous system disorder and/or damage.
INGESTION:	Low order of toxicity by ingestion. May cause irritation of the gastrointestinal lining and nausea. Main hazard is aspiration into the lungs during swallowing or vomiting. Small amounts aspirated into the respiratory system may cause bronchopneumonia or pulmonary adema, possible progressing to death.
CHRONIC EFFECTS:	Overexposure to n-hexane may cause progressive and potentially irreversible damage to the peripheral nervous system, particularly in the arms and legs. Repeated overexposure to aliphatic mineral spirits such as Stoddard solvent can cause chronic nervous system disease.
TARGET ORGANS:	central nervous system, peripheral nervous system, respiratory system

Medical Conditions Aggravated by Exposure: skin and respiratory conditions

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

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Hexane isomers	various	25 - 35
Petrolatum	8009-03-8	10 – 20
Stoddard solvent	8052-41-3	10 – 15
Heptane	142-82-5	3 – 8
Solvent-refined paraffinic distillates	64741-88-4	3 - 8
Xylene	1330-20-7	2 - 5
n-Hexane	110-54-3	< 1
Ethylbenzene	100-41-4	< 1
Liquefied petroleum gas	68476-86-8	25 - 35

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. Contact a physician immediately. If victim is conscious, give 2 glasses of water.

Note to Physicians: Treat symptomatically. This product is an aspiration hazard. Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point:	< 0 F (TCC)	Upper Explosive Limit:	9.0
Autoignition Temperature:	489 F	Lower Explosive Limit:	1.7

Suitable Extinguishing Media: Class B fire extinguishers, dry chemical, foam or CO2

Products of Combustion: fumes, smoke and carbon monoxide

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 fog or spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition. Do not spray water directly on fire; product will float and could be

reignited on surface of water.

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: Dike area to contain spill. Remove all sources of ignition. 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: Do not use product near any potential source of ignition. Do not touch container to electrical sources as container will conduct electricity. Avoid contact with eyes and skin. Avoid breathing vapors. Wash thoroughly after handling and before contacting food.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing. Do not store near potential sources of ignition.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Hexane isomers	500(v)	1000(v)	500	1000	NE		ppm
Petrolatum	NE	NE	NE	NE	NE		
Stoddard solvent	500	NE	100	NE	NE		ppm
Heptane	500	NE	400	500	NE		ppm
Solvent-refined paraffinic distillates	5*	NE	5*	10*	NE		mg/m^3
Xylene	100	NE	100	150	NE		ppm
n-Hexane	500	NE	50(s)	NE	NE		ppm
Ethylbenzene	100	NE	100	125	NE		ppm
Liquefied petroleum gas	1000	NE	1000	NE	NE		ppm
N.E. – Not Established	(c) – ceiling		(s) – skin		(v) – vacated		* - oil mist

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 a NIOSH-approved cartridge respirator with an organic vapor cartridge if vapors exceed exposure limits. Use a self-contained breathing apparatus in confined spaces 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, PVC or Viton. 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: dark red, viscous
Odor: petroleum solvent
Specific Gravity: 0.744
Initial Boiling Point: 140 F
Freezing Point: < -50 F
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: >1 (Butyl acetate = 1)
Solubility: negligible in water
pH: NA
Volatile Organic Compounds: wt %: 78.3 g/L: 582.6 lbs./gal: 4.85

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: sources of ignition, temperature extremes

Incompatible Materials: strong oxidizers

Hazardous Decomposition Products: oxides of carbon, aldehydes and other products of incomplete combustion

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
Stoddard solvent	Lethal dose	> 5 gm/kg	Oral	Rat
n-Hexane	LD50	28710 mg/kg	Oral	Rat
n-Hexane	LC50	48000 ppm/4H	Inhalation	Rat
Heptane	LC50	103 gm/m^3/2H	Inhalation	Rat
Xylene	LD50	4300 mg/kg	Oral	Rat
Xylene	LC50	5000 ppm/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	Component	Result
OSHA:	None listed	
IARC:	Ethylbenzene	2B – Possibly carcinogenic to humans

NTP: None listed

Mutagenicity: No information available

Section 12: Ecological Information

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

Ecotoxicity:	n-Hexane - 96 Hr LC50 Lepomis macrochirus: 4.12 mg/L Xylene – 96 Hr LC50 Oncorhynchus mykiss: 13.5 – 17.3 mg/L Ethylbenzene – 96Hr LC50 Pimephales promelas: 12.1 mg/L (flow-through)
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	No information available

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001 (See 40 CFR Part 261.20 – 261.33).
Aerosol containers should be emptied and depressurized before disposal. Empty containers may be recycled. Any liquid product should be managed as a hazardous waste.

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), Ethylbenzene (1000 lbs), n-hexane (5000 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	Yes
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:
n-hexane (0.9%), Xylene (3.1%), Ethylbenzene (0.8%)

Clean Air Act:
Section 112 Hazardous Air Pollutants (HAPs): n-hexane, 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

State Right to Know:

New Jersey:	75-83-2, 110-54-3, 79-29-8, 68476-86-8, 8052-42-3, 1330-20-7, 142-82-5, 100-41-4
Pennsylvania:	107-83-5, 75-83-2, 110-54-3, 79-29-8, 68476-86-8, 8052-42-3, 1330-20-7, 142-82-5, 100-41-4
Massachusetts:	107-83-5, 75-83-2, 110-54-3, 79-29-8, 68476-86-8, 8052-42-3, 1330-20-7, 142-82-5, 100-41-4
Rhode Island :	110-54-3, 68476-86-8, 8052-42-3, 1330-20-7, 142-82-5, 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

Prepared By: Michelle Rudnick
CRC #: 597N
Revision Date: 01/28/2008

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 Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		