



# Material Safety Data Sheet

## Section 1: Product & Company Identification

**Product Name:** Permanent Head Gasket & Block Repair with Nanotechnology

**Product Number (s):** 401232

**Manufactured By:**

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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: Metallic copper liquid, practically odorless

**CAUTION**  
Irritant

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

### Potential Health Effects:

**EYE:** Causes moderate irritation to the eyes.

**SKIN:** Causes moderate irritation to the skin.

**INHALATION:** Spray mist would be irritating to the respiratory system.

**INGESTION:** May cause irritation to the mouth, esophagus and stomach.

**CHRONIC EFFECTS:** None known

**TARGET ORGANS:** for copper: liver, kidney and lungs

Medical Conditions Aggravated by Exposure:

Unknown

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

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**Section 3: Composition/Information on Ingredients**

COMPONENT	CAS NUMBER	% by Wt.
Water	7732-18-5	75 – 85
Sodium silicate	1344-09-8	10 - 20
Copper flake	7440-50-8	< 1
Aluminum paste	7429-90-5	< 1

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**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: If swallowed, DO NOT induce vomiting. Give victim a glass of water. Get medical attention immediately.
- Note to Physicians:* None

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**Section 5: Fire-Fighting Measures**

- Flammable Properties: As defined by OSHA, this product is nonflammable.
- |                           |            |                        |      |
|---------------------------|------------|------------------------|------|
| Flash Point:              | None (TCC) | Upper Explosive Limit: | None |
| Autoignition Temperature: | None       | Lower Explosive Limit: | None |
- Suitable Extinguishing Media: This material will not burn. Use extinguishing media appropriate for the surrounding fire.
- Products of Combustion: NA
- 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.

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**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. This product is harmful to aquatic life.

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: Avoid contact with eyes, skin and clothing. Keep container closed when not in use. Properly clean any spilled residue with a wet cloth.

Storage Procedures: Store in a cool dry area out of direct sunlight. Store in closed container. Do not store near acids.

Aerosol Storage Level: NA

## Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Water	NE	NE	NE	NE	NE		
Sodium silicate	NE	NE	NE	NE	NE		
Copper flake	0.1*	NE	0.1*	NE	NE		mg/m <sup>3</sup>
Aluminum paste	15*	NE	10*	NE	NE		mg/m <sup>3</sup>
N.E. – Not Established      (c) – ceiling      (s) – skin      (v) – vacated							

\* Exposure values apply to dust or respirable fraction. These values would not apply to the liquid mixture product. These would only apply to this product if it were dried to a powder or residue.

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 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 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: metallic copper

Odor: practically odorless

Specific Gravity: 1.15

Initial Boiling Point: 212 F

Freezing Point: ND

Vapor Pressure: ND

Vapor Density: &gt; 1 (air = 1)

Evaporation Rate: &lt; 1 (ether = 1)

Solubility: Complete

pH: 11 – 11.5

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

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**Section 10: Stability and Reactivity**

Stability: Stable

Conditions to Avoid: None

Incompatible Materials: Acids, ammonium salts

Hazardous Decomposition Products: Hydrogen

Possibility of Hazardous Reactions: No

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**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**

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Sodium silicate	LD50	1153 mg/kg	Oral	Rat

**CHRONIC EFFECTS**

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No data

Other: None

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**Section 12: Ecological Information**

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

Ecotoxicity: copper – 96 Hr LC50 water flea: 10 µg/L

sodium silicate – 96 Hr LC50 water flea: 247 ppm

Persistence / Degradability: This material is not persistent in aquatic systems, but its high pH when undiluted is

Bioaccumulation / Accumulation: acutely harmful to aquatic life.  
No information available.  
Mobility in Environment: No information available.

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**Section 13: Disposal Considerations**

Disposal: This material is not a RCRA hazardous waste. (See 40 CFR Part 261.20 – 261.33)  
Wastes should be collected and properly disposed. Do not dump into bodies of water, on the ground or in a septic system.

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

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**Section 14: Transport Information**

Proper shipping description:

US DOT (ground): Not regulated.

Special Provisions: None

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**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: copper (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 No  
Reactive Hazard No  
Release of Pressure No  
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:  
Copper (< 1%)

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: 7440-50-8, 7429-90-5  
 Pennsylvania: 7440-50-8, 7429-90-5  
 Massachusetts: 7440-50-8, 7429-90-5  
 Rhode Island : 7440-50-8, 7429-90-5

**Additional Regulatory Information:** None

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**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 #: 683B  
 Revision Date: 12/8/2006

Changes since last revision: Formula number 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:** Mass Air Flow Sensor Cleaner (Aerosol)

**Product Number (s):** 05110

**Manufactured By:**

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
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**

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
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:

	<u>Component</u>	<u>Result</u>
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

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**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.

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**Section 14: Transport Information**

Proper shipping description:

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

Special Provisions: None

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**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

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**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:** Freeze-Off® Super Penetrant (Aerosol)

**Product Number (s):** 05002, 05002-6, 05010

**Manufactured By:**

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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: Reddish liquid, pine odor

### DANGER

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

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

### Potential Health Effects:

- EYE:** Liquid may cause mild irritation including stinging, tearing and redness.
- SKIN:** Liquid may cause mild to moderate skin irritation including redness, itching, and burning. Repeated contact may cause drying and cracking of skin. Product becomes colder the longer it is sprayed and may cause frostbite if sprayed on skin after extended use.
- INHALATION:** Breathing small amounts of vapor during normal handling is not likely to cause harmful effects. Breathing large amounts may cause irritation to the nose and throat as well as headache, drowsiness or other nervous system effects.
- INGESTION:** Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Main hazard is aspiration of this material into the lungs during swallowing or vomiting. This can result in lung inflammation and other lung injury.
- CHRONIC EFFECTS:** Unknown
- TARGET ORGANS:** Inadequate data available for this material.

Medical Conditions Aggravated by Exposure: skin or respiratory conditions

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

**Product Name:** Freeze-Off® Super Penetrant (Aerosol)  
**Product Number (s):** 05002, 05002-6, 05010

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### Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Aliphatic hydrocarbon	8052-41-3	10 - 15
Hydrotreated petroleum distillates	64742-47-8 / 64742-46-7	15 - 20
Turpentine oil	8006-64-2	3 - 6
COzol® 306	proprietary blend	3 - 6
2-Butoxyethanol	111-76-2	2 - 3
Diacetone alcohol	123-42-2	1 - 3
1,1-Difluoroethane (HFC-152a)	75-37-6	45 - 55

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### 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 due to aspiration hazard. Seek medical attention.

*Note to Physicians:* This material is an aspiration hazard.

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### 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 (liquid):	109 F (TCC)	Upper Explosive Limit:	ND
Flash Point (propellant):	- 58 F (Est.)	Lower Explosive Limit:	ND

**Suitable Extinguishing Media:** Use extinguishing media appropriate for a Class B fire.

**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.

**Product Name:** Freeze-Off® Super Penetrant (Aerosol)  
**Product Number (s):** 05002, 05002-6, 05010

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## 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.

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## Section 7: Handling and Storage

**Handling Procedures:** Do not use near flames, sparks or other sources of ignition. Do not heat product. Use with adequate ventilation in order to prevent vapor build-up and a flammable atmosphere. Avoid contact with skin and eyes.

**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

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## Section 8: Exposure Controls/Personal Protection

**Exposure Guidelines:**

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Aliphatic hydrocarbon	100 (v)	NE	100	NE	NE		ppm
Hydrotreated petroleum distillates	NE	NE	NE	NE	NE		
Turpentine oil	100	NE	20	NE	NE		ppm
COzol™ 306	NE	NE	NE	NE	NE		
2-Butoxyethanol	50 (s)	NE	20	NE	NE		ppm
Diacetone alcohol	50	NE	50	NE	NE		ppm
1,1-Difluoroethane	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.

**Product Name:** Freeze-Off® Super Penetrant (Aerosol)

**Product Number (s):** 05002, 05002-6, 05010

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

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## Section 9: Physical and Chemical Properties

Physical State: Liquid

Color: reddish

Odor: pine

Specific Gravity: 0.822

Initial Boiling Point: ND

Freezing Point: ND

Vapor Pressure: ND

Vapor Density: > 1 (air = 1)

Evaporation Rate: ND (ether = 1)

Solubility: negligible

pH: NA

Volatile Organic Compounds:     wt %:     36.55                     g/L:     300.4                     lbs./gal:     2.5

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## Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: heat, sources of ignition

Incompatible Materials: strong oxidizers

Hazardous Decomposition Products: oxides of carbon

Possibility of Hazardous Reactions: No

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## 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

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
2-Butoxyethanol	LC50	450 ppm/4H	Inhalation	Rat
2-Butoxyethanol	LD50	470 mg/kg	Oral	Rat
2-Butoxyethanol	LD50	220 mg/kg	Dermal	Rabbit
Petroleum distillates	LD50	> 5 g/kg	Oral	Rat
Petroleum distillates	LD50	> 2 g/kg	Dermal	Rabbit
Petroleum distillates	LC50	> 5mg/L/4H	Inhalation	Rat

### CHRONIC EFFECTS

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	



**Product Name:** Freeze-Off® Super Penetrant (Aerosol)

**Product Number (s):** 05002, 05002-6, 05010

Mutagenicity: No data available.

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## 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 data available  
Bioaccumulation / Accumulation: No data available  
Mobility in Environment: No data available

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## Section 13: Disposal Considerations

Disposal: The dispensed liquid 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 or discarded. Any liquids should be collected and properly disposed as hazardous waste.

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

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## Section 14: Transport Information

Proper shipping description:

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

Special Provisions: None

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## 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

**Product Name: Freeze-Off® Super Penetrant (Aerosol)**

**Product Number (s): 05002, 05002-6, 05010**

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 category) ( 2.5%)

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: 8052-41-3, 111-76-2, 8002-09-3, 8006-64-2, 123-42-2, 75-37-6  
Pennsylvania: 8052-41-3, 123-42-2, 111-76-2  
Massachusetts: 8052-41-3, 8006-64-2, 123-42-2, 111-76-2, 75-37-6  
Rhode Island : 8052-41-3, 111-76-2, 8006-64-2, 123-42-2,

**Additional Regulatory Information:** This product is compliant with federal and state (CA & OTC) Consumer Products VOC regulations.

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**Section 16: Other Information**

NFPA: Health: 1 Flammability: 4 Reactivity: 0  
HMIS: Health: 1 Flammability: 4 Reactivity: 0 PPE: B

Prepared By: Michelle Rudnick  
CRC #: 447B  
Revision Date: 7/30/2007

Changes since last revision: Added new Part #

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:** Throttle Body and Air Intake Cleaner (aerosol)

**Product Number (s):** 05078, 05078-6

**Manufactured By:**

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
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

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
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:

	<u>Component</u>	<u>Result</u>
OSHA:	None listed	
IARC:	Ethylbenzene	Group 2B – Possibly carcinogenic to humans
NTP:	None listed	

Mutagenicity: No information available

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**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

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**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.

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**Section 14: Transport Information**

Proper shipping description:

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

Special Provisions: None

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**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:** Battery Cleaner with indicator

**Product Number (s):** 05023

**Manufactured By:**

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
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.

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**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 %: 7.9 g/L: 82.16 lbs./gal: 0.68

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**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

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**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**

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
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:**

	<u>Component</u>	<u>Result</u>
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:	<u>2-Butoxyethanol</u>	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

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**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: 04/04/2007

Changes since last revision: Revised section 9 VOC information.

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:** Di-Electric Grease

**Product Number (s):** 05105

**Manufactured By:**

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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.

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**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.

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**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:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
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**

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
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No information available

**CHRONIC EFFECTS**

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
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.

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**Section 14: Transport Information**

Proper shipping description:

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

Special Provisions: None

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**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

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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		