



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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**Product Name:** Complete Fuel System & Combustion Chamber Cleaner

**Product Number (s):** 05076, 75076

**Product Use:** Fuel system additive

### Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

[www.crcindustries.com](http://www.crcindustries.com)

1-215-674-4300 (General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.

2-1246 Lorimar Drive

Mississauga, Ontario L5S 1R2

[www.crc-canada.ca](http://www.crc-canada.ca)

1-905-670-2291

In Mexico:

CRC Industries Mexico

Av. Benito Juárez 4055 G

Colonia Orquídea

San Luís Potosí, SLP CP 78394

[www.crc-mexico.com](http://www.crc-mexico.com)

52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

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## Section 2: Hazards Identification

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### Emergency Overview

**DANGER:** Combustible. Harmful or Fatal if Swallowed.

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

Appearance & Odor: Light amber liquid, petroleum odor

### Potential Health Effects:

**ACUTE EFFECTS:**

**EYE:** Contact with liquid or vapor may cause mild to moderate irritation.

**SKIN:** May cause skin irritation with prolonged or repeated contact. Practically non-toxic if absorbed following a single exposure.

**INHALATION:** Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure and death.

**INGESTION:** Ingestion may cause gastrointestinal disturbance, including irritation, nausea, vomiting and diarrhea. The major health threat of ingestion occurs from the danger of aspiration of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia, severe lung damage and even death.

**CHRONIC EFFECTS:** Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

**TARGET ORGANS:** Central nervous system

**Medical Conditions Aggravated by Exposure:** Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis.

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

**Product Name: Complete Fuel System & Combustion Chamber Cleaner**  
**Product Number (s): 05076, 75076**

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### Section 3: Composition/Information on Ingredients

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COMPONENT	CAS NUMBER	% by Wt.
Petroleum Distillate	68476-34-6	25 - 35
Sweetened middle petroleum distillate	64741-86-2	25 - 35
Polyether amine	Proprietary	25 - 35
Solvent naphtha	64742-94-5	< 5
Naphthalene	91-20-3	< 1

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### Section 4: First Aid Measures

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

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

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

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

*Note to Physicians:* Treat symptomatically.

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### Section 5: Fire-Fighting Measures

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**Flammable Properties:** As defined by OSHA, this product is a Class IIIA Combustible Liquid.  
Flash Point: 187°F (TCC)                      Upper Explosive Limit: 7.5  
Autoignition Temperature: 494°F                      Lower Explosive Limit: 0.6

**Fire and Explosion Data:**

**Suitable Extinguishing Media:** Use extinguishers rated for Class B fires, such as dry chemical, Halon, fire fighting foam or CO<sub>2</sub>.

**Products of Combustion:** Oxides of carbon

**Explosion Hazards:** Containers, when exposed to heat from fire, may build pressure and rupture.

**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

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**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.

**Product Name: Complete Fuel System & Combustion Chamber Cleaner**

**Product Number (s): 05076, 75076**

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**

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Handling Procedures: Keep away from heat, sparks and open flame. Open container in a well-ventilated area and provide adequate ventilation during use. Do not breathe vapors. Keep container closed when not in use. Wash hands after use. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Containers should be tightly closed while in storage. Store in a well ventilated area. Keep out of reach of children.

Aerosol Storage Level: NA

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**Section 8: Exposure Controls/Personal Protection**

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**Exposure Guidelines:**

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Petroleum distillate	5	NE	100 (s)	NE	NE		mg/m <sup>3</sup>
Sweetened middle petroleum distillate	NE	NE	NE	NE	NE		
Polyether amine	NE	NE	NE	NE	NE		
Solvent naphtha	NE	NE	NE	NE	NE		
Naphthalene	10	15(v)	10	15	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

**Controls and Protection:**

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. Air monitoring is needed to determine actual employee exposure levels. 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, neoprene or PVC. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

**Product Name: Complete Fuel System & Combustion Chamber Cleaner**  
**Product Number (s): 05076, 75076**

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## Section 9: Physical and Chemical Properties

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Physical State: liquid  
Color: light amber  
Odor: petroleum  
Odor Threshold: ND  
Specific Gravity: 0.87  
Initial Boiling Point: 320°F  
Freezing Point: ND  
Vapor Pressure: ND  
Vapor Density: > 1 (air = 1)  
Evaporation Rate: slow  
Solubility: negligible in water  
Coefficient of water/oil distribution: ND  
pH: NA  
Volatile Organic Compounds: wt %: 47 g/L: 408.9 lbs./gal: 3.41

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## Section 10: Stability and Reactivity

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Stability: Stable  
Conditions to Avoid: Temperature extremes, sources of ignition  
Incompatible Materials: Strong oxidizers, Viton®, Fluorel®, strong acids  
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, non-combusted hydrocarbons (smoke); propylamine, polyalkylglycols, and aliphatic alcohols may also be released.  
Possibility of Hazardous Reactions: No

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## Section 11: Toxicological Information

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

### Acute Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Petroleum distillate	9 mL/kg	> 5 mL/kg	No data
Sweetened middle petroleum distillate	No data	> 2000 mg/kg	4.6 mg/L/4H
Polyether amine	No data	No data	No data
Solvent naphtha	5 mL/kg	> 2 mL/kg	> 590 mg/m <sup>3</sup> /4H
Naphthalene	490 mg/kg	> 20 g/kg	No data

**Product Name: Complete Fuel System & Combustion Chamber Cleaner**

**Product Number (s): 05076, 75076**

**Chronic Toxicity:**

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u> E (mild) / S (mild) / R (moderate)	<u>Sensitizer</u>
Petroleum distillate	No	No	No		No
Sweetened middle petroleum distillate	No	No	No	Unknown	Unknown
Polyether amine	No	No	No	Unknown	Unknown
Solvent naphtha	No	No	No	Unknown	Unknown
Naphthalene	No	Group 2B	Reasonably Anticipated to be a Carcinogen	E (moderate) / S (mild) / R (moderate)	Unknown

E – Eye      S – Skin      R - Respiratory

Reproductive Toxicity: No information available  
Teratogenicity: No information available  
Mutagenicity: Petroleum Distillate: This material has been positive in a mutagenicity study.  
Synergistic Effects: No information available

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## Section 12: Ecological Information

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

Ecotoxicity: Naphthalene -- 48 Hr EC50 water flea: 2.16 mg/L  
Persistence / Degradability: No information available  
Bioaccumulation / Accumulation: Some ingredients of this product have the potential for Bioconcentration.  
Mobility in Environment: Spills may penetrate the soil causing groundwater contamination. This material may accumulate in sediments.

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## Section 13: Disposal Considerations

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**Waste Classification:** This product is a RCRA hazardous waste for the toxicity characteristic: D018 (1.4 mg/L Benzene). (See 40 CFR Part 261.20 – 261.33)  
Empty containers may be recycled.

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

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## Section 14: Transport Information

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US DOT (ground): Not Regulated  
ICAO/IATA (air): Not Regulated  
IMO/IMDG (water): Not Regulated  
Special Provisions: None

**Product Name: Complete Fuel System & Combustion Chamber Cleaner**  
**Product Number (s): 05076, 75076**

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## **Section 15: Regulatory Information**

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### **U.S. Federal Regulations:**

#### 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: Naphthalene (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	Yes
	Reactive Hazard	No
	Release of Pressure	No
	Acute Health Hazard	Yes
	Chronic Health Hazard	Yes

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:  
Naphthalene (0.2%)

#### Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): Naphthalene

### **U.S. 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:

Naphthalene (0.2%),
Benzene (1.4 ppm)

Consumer Products VOC Regulations: This product is not regulated.

#### State Right to Know:

New Jersey:	91-20-3, 800967-5491P, 800967-5502P, 800967-5485P
Pennsylvania:	91-20-3
Massachusetts:	91-20-3
Rhode Island :	91-20-3

### **Canadian Regulations:**

#### Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: B3

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

### **European Union Regulations:**

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as

**Product Name: Complete Fuel System & Combustion Chamber Cleaner**  
**Product Number (s): 05076, 75076**

listed in Article 4(1) of the RoHS Directive.

**Additional Regulatory Information:** None

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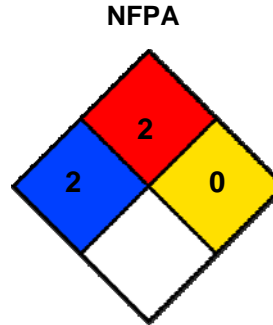
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**Section 16: Other Information**

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HMIS® (II)	
Health:	2
Flammability:	2
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 425F  
Revision Date: 07/30/2010

Changes since last revision: New part # added

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. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substance List  
g/L: grams per Liter  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
IMO: International Maritime Organization  
lbs./gal: pounds per gallon  
LC: Lethal Concentration  
LD: Lethal Dose

NA: Not Applicable  
ND: Not Determined  
NIOSH: National Institute of Occupational Safety & Health  
NFPA: National Fire Protection Association  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PMCC: Pensky-Martens Closed Cup  
PPE: Personal Protection Equipment  
ppm: Parts per Million  
RoHS: Restriction of Hazardous Substances  
STEL: Short Term Exposure Limit  
TCC: Tag Closed Cup  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Information System



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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**Product Name:** Valve-Kleen™ Engine Valve & Lifter Cleaner

**Product Number (s):** 05331, 75331

**Product Use:** Engine valve and lifter cleaner

### Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

[www.crcindustries.com](http://www.crcindustries.com)

1-215-674-4300 (General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.

2-1246 Lorimar Drive

Mississauga, Ontario L5S 1R2

[www.crc-canada.ca](http://www.crc-canada.ca)

1-905-670-2291

In Mexico:

CRC Industries Mexico

Av. Benito Juárez 4055 G

Colonia Orquídea

San Luís Potosí, SLP CP 78394

[www.crc-mexico.com](http://www.crc-mexico.com)

52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

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## Section 2: Hazards Identification

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### Emergency Overview

**DANGER:** Flammable. Harmful or Fatal if Swallowed. Vapor Harmful.  
Appearance & Odor: Light yellow liquid, solvent odor

### Potential Health Effects:

#### ACUTE EFFECTS:

**EYE:** May cause mild eye irritation including stinging, tearing, redness and possibly blurred vision.

**SKIN:** May cause skin irritation including redness and burning. Prolonged or repeated contact may cause drying and cracking of the skin, or burns and other skin damage. Passage of this material into the body through the skin is possible, but not likely to cause harmful effects during safe handling and use.

**INHALATION:** Breathing small amounts during normal handling is not likely to cause harmful effects. Breathing larger amounts may cause throat irritation and may lead to central nervous system effects. Symptoms include giddiness, dizziness, drowsiness, nausea, headache, and shortness of breath. Continued exposure could lead to unconsciousness and possibly coma.

**INGESTION:** Swallowing small amounts is not likely to be harmful, but may cause feelings of nausea. Larger amounts may be harmful as this material can be aspirated into the lungs during swallowing or vomiting. This can lead to lung inflammation and other lung injury.

**CHRONIC EFFECTS:** Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain.

**TARGET ORGANS:** kidney, liver, central nervous system; may cause irregular heartbeats.

Medical Conditions Aggravated by Exposure: respiratory conditions

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



Product Name: Valve-Kleen™ Engine Valve & Lifter Cleaner

Product Number (s): 05331, 75331

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### Section 3: Composition/Information on Ingredients

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COMPONENT	CAS NUMBER	% by Wt.
Xylene	1330-20-7	45 – 55
Solvent-refined heavy paraffinic distillates	64741-88-4	35 – 45
Ethylbenzene	100-41-4	10 – 15
Acetone	67-64-1	< 1

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### Section 4: First Aid Measures

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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 immediate medical attention. Do NOT induce vomiting. If individual is drowsy or unconscious, place individual on the left side with the head down.

*Note to Physicians:* Inhalation of high concentrations of this material may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.

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### Section 5: Fire-Fighting Measures

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**Flammable Properties:** As defined by OSHA, this product is a Class IC Flammable Liquid.

Flash Point: 82°F / 28°C (TCC)      Upper Explosive Limit: 6.6  
Autoignition Temperature: 980°F / 527°C      Lower Explosive Limit: 1.0

**Fire and Explosion Data:**

Suitable Extinguishing Media: Class B fire extinguishers; carbon dioxide, dry chemical, regular foam

Products of Combustion: Oxides of carbon, various hydrocarbons

Explosion Hazards: Containers, when exposed to heat from fire, may build pressure and rupture. Vapors may accumulate in a confined space and create a flammable atmosphere.

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

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Personal Precautions: Use personal protection recommended in Section 8. Avoid inhaling vapors.

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

**Product Name: Valve-Kleen™ Engine Valve & Lifter Cleaner**

**Product Number (s): 05331, 75331**

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

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## Section 7: Handling and Storage

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Handling Procedures: Do not use near sparks, open flames or other sources of ignition. Use proper ventilation to minimize accumulation of vapors. If ventilation is not available, respiratory protection should be used (See Section 8). Wash hands after use and before contacting food. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Keep containers closed when not in use. Do not store near sources of ignition. Keep out of reach of children.

Aerosol Storage Level: NA

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## Section 8: Exposure Controls/Personal Protection

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**Exposure Guidelines:**

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Xylene	100	NE	100	150	NE		ppm
Solvent-refined heavy paraffinic distillates	5*	NE	5*	10*	NE		mg/m <sup>3</sup>
Ethylbenzene	100	NE	100	125	NE		ppm
Acetone	1000	NE	500	750	NE		ppm
N.E. – Not Established      (c) – ceiling      (s) – skin      (v) – vacated      * – oil mist							

**Controls and Protection:**

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. Air monitoring is needed to determine actual employee exposure levels. 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 neoprene or nitrile. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Product Name: Valve-Kleen™ Engine Valve & Lifter Cleaner  
Product Number (s): 05331, 75331

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## Section 9: Physical and Chemical Properties

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Physical State: liquid  
Color: yellow  
Odor: solvent  
Odor Threshold: ND  
Specific Gravity: 0.8655  
Initial Boiling Point: 279°F / 137°C  
Freezing Point: ND  
Vapor Pressure: ND  
Vapor Density: > 1 (air = 1)  
Evaporation Rate: fast  
Solubility: negligible in water  
Coefficient of water/oil distribution: ND  
pH: NA  
Volatile Organic Compounds: wt %: 60.4                      g/L: 522.8                      lbs./gal: 4.35

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## Section 10: Stability and Reactivity

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Stability: Stable  
Conditions to Avoid: Sources of ignition, temperature extremes  
Incompatible Materials: Strong oxidizers  
Hazardous Decomposition Products: Oxides of carbon; various hydrocarbons  
Possibility of Hazardous Reactions: No

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## Section 11: Toxicological Information

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

### Acute Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Xylene	4300 mg/kg	> 1700 mg/kg	5000 ppm/4H
Solvent-refined heavy paraffinic distillates	No data	No data	No data
Ethylbenzene	3500 mg/kg	> 5000 mg/kg	55,000 mg/m <sup>3</sup> /2H
Acetone	5800 mg/kg	No data	50,100 mg/m <sup>3</sup> /8H

**Product Name: Valve-Kleen™ Engine Valve & Lifter Cleaner**

**Product Number (s): 05331, 75331**

**Chronic Toxicity:**

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
Xylene	No	No	No	E (mild) / S (moderate)	Unknown
Solvent-refined heavy paraffinic distillates	No	No	No	E (mild) / S (mild)	Unknown
Ethylbenzene	No	Group 2B	No	E (moderate) / S (mild)	Unknown
Acetone	No	No	No	E (moderate) / S (moderate) / R (mild)	Yes

E – Eye      S – Skin      R - Respiratory

Reproductive Toxicity: No information available  
Teratogenicity: No information available  
Mutagenicity: No information available  
Synergistic Effects: No information available  
Other: Paraffinic distillates: Product testing using IP 346 shows a DMSO PAH content of < 3% by weight.

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**Section 12: Ecological Information**

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

Ecotoxicity: Xylene – 96Hr LC50 Oncorhynchus mykiss: 13500 – 17300 ug/L  
24Hr LC50 Daphnia magna: 150 mg/L  
Ethylbenzene – 96Hr LC50 Pimephales promelas: 12.1 mg/L (flow-through)  
48Hr LC50 Daphnia magna: 75 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**

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**Waste Classification:** This 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)  
Empty containers may be recycled.

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

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**Section 14: Transport Information**

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US DOT (ground): Consumer Commodity, ORM-D  
ICAO/IATA (air): Consumer Commodity, ID8000, 9  
IMO/IMDG (water): Flammable liquids, N.O.S. (xylene, ethylbenzene), UN1993, PGIII, Limited Quantity  
Special Provisions: None

**Product Name: Valve-Kleen™ Engine Valve & Lifter Cleaner**  
**Product Number (s): 05331, 75331**

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## **Section 15: Regulatory Information**

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### **U.S. Federal Regulations:**

#### 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)

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

#### Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

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

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:  
Xylene (< 50%), Ethylbenzene (12%)

#### Clean Air Act:

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

#### Occupational Safety and Health Administration:

This product is regulated by the Hazard Communications Standard.

### **U.S. 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, trace amounts of toluene and benzene

Consumer Products VOC Regulations: This product is not regulated

#### State Right to Know:

New Jersey:	1330-20-7, 100-41-4
Pennsylvania:	1330-20-7, 100-41-4
Massachusetts:	1330-20-7, 100-41-4
Rhode Island :	1330-20-7, 100-41-4

### **Canadian Regulations:**

#### Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulation and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: B2, D2A, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

**Product Name: Valve-Kleen™ Engine Valve & Lifter Cleaner**

**Product Number (s): 05331, 75331**

**European Union Regulations:**

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

Additional Regulatory Information: None

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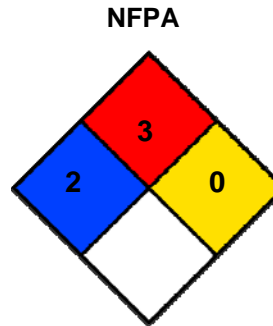
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**Section 16: Other Information**

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HMIS® (II)	
Health:	2
Flammability:	3
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 601A  
Revision Date: 08/09/2010

Changes since last revision: MSDS reformatted to meet the requirements of the Canadian Controlled Products Regulations.

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. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substance List  
g/L: grams per Liter  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
IMO: International Maritime Organization  
lbs./gal: pounds per gallon  
LC: Lethal Concentration  
LD: Lethal Dose

NA: Not Applicable  
ND: Not Determined  
NIOSH: National Institute of Occupational Safety & Health  
NFPA: National Fire Protection Association  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PMCC: Pensky-Martens Closed Cup  
PPE: Personal Protection Equipment  
ppm: Parts per Million  
RoHS: Restriction of Hazardous Substances  
STEL: Short Term Exposure Limit  
TCC: Tag Closed Cup  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Information System



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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

**Product Number (s):** 05110, 05610

**Product Use:** Mass Air Flow Sensor Cleaner

### Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

[www.crcindustries.com](http://www.crcindustries.com)

1-215-674-4300 (General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.

2-1246 Lorimar Drive

Mississauga, Ontario L5S 1R2

[www.crc-canada.ca](http://www.crc-canada.ca)

1-905-670-2291

In Mexico:

CRC Industries Mexico

Av. Benito Juárez 4055 G

Colonia Orquídea

San Luís Potosí, SLP CP 78394

[www.crc-mexico.com](http://www.crc-mexico.com)

52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

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## Section 2: Hazards Identification

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### Emergency Overview

**DANGER:** Extremely Flammable. Harmful or Fatal if Swallowed. Contents Under Pressure.

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

Appearance & Odor: Clear, colorless liquid with alcohol odor

### Potential Health Effects:

#### ACUTE 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, possibly 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.

Product Name: Mass Air Flow Sensor Cleaner (aerosol)

Product Number (s): 05110, 05610

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### Section 3: Composition/Information on Ingredients

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COMPONENT	CAS NUMBER	% by Wt.
Hexane isomers	64742-49-0	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

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### Section 4: First Aid Measures

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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.

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### Section 5: Fire-Fighting Measures

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

Flash Point: < 0°F (TCC)  
Autoignition Temperature: 489°F

Upper Explosive Limit: 9.0  
Lower Explosive Limit: 1.7

**Fire and Explosion Data:**

Suitable Extinguishing Media: Class B fire extinguishers, dry chemical, foam or CO<sub>2</sub>

Products of Combustion: Fumes, smoke and carbon monoxide

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode. Vapors may accumulate in a confined space and create a flammable atmosphere.

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. Do not spray water directly on fire; product will float and could be reignited on surface of water.

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### Section 6: Accidental Release Measures

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Personal Precautions: Use personal protection recommended in Section 8.



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

**Product Number (s): 05110, 05610**

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.

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## Section 7: Handling and Storage

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Handling Procedures: Use proper grounding and bonding procedures for transferring materials. Do not use product near any source of ignition. Avoid contact with eyes and skin. Avoid breathing vapors. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

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

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### 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
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							

### Controls and Protection:

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. Air monitoring is needed to determine actual employee exposure levels. 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, Viton. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

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

**Product Number (s): 05110, 05610**

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## Section 9: Physical and Chemical Properties

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Physical State: liquid

Color: clear, colorless

Odor: alcohol

Odor Threshold: ND

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: very fast

Solubility: negligible in water

Coefficient of water/oil distribution: ND

pH: NA

Volatile Organic Compounds: wt %: 95                      g/L: 636.4                      lbs./gal: 5.3

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## Section 10: Stability and Reactivity

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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

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## Section 11: Toxicological Information

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

### **Acute Toxicity:**

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Hexane isomers	> 15,000 mg/kg	> 2000 mg/kg	No data
n-Hexane	28,710 mg/kg	3000 mg/kg	48,000 ppm/4H
Synthetic isoparaffinic hydrocarbon	No data	No data	No data
Methanol	5600 mg/kg	15,800 mg/kg	81,000 mg/m <sup>3</sup> /14H
Carbon dioxide	No data	No data	470,000 ppm/30M

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

Product Number (s): **05110, 05610**

**Chronic Toxicity:**

Component	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen	Irritant	Sensitizer
Hexane isomers	No	No	No	No	Unknown
n-Hexane	No	No	No	E (moderate) / S (moderate) / R (moderate)	Unknown
Synthetic isoparaffinic hydrocarbon	No	No	No	E (mild)	Unknown
Methanol	No	No	No	E (moderate) / S (moderate)	Unknown
Carbon dioxide	No	No	No	No	No

E – Eye	S – Skin	R - Respiratory
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Reproductive Toxicity: No information available

Teratogenicity: No information available

Mutagenicity: No information available

Synergistic Effects: No information available

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## Section 12: Ecological Information

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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

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**Waste Classification:** The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. Pressurized containers are a D003 reactive waste. (See 40 CFR Part 261.20 – 261.33)

Any liquid product should be managed as a hazardous waste. Empty aerosol containers may be recycled.

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

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## Section 14: Transport Information

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

ICAO/IATA (air): Consumer Commodity, ID8000, 9

IMO/IMDG (water): Aerosols, UN1950, 2.1, Limited Quantity

Special Provisions: None

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

**Product Number (s): 05110, 05610**

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## **Section 15: Regulatory Information**

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### **U.S. Federal Regulations:**

#### 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

### **U.S. 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

Consumer Products VOC Regulations: This product is not regulated.

#### State Right to Know:

New Jersey: 75-83-2, 109-66-0, 78-78-4, 96-37-7, 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 : 75-83-2, 110-54-3, 79-29-8, 67-56-1, 124-38-9

### **Canadian Regulations:**

#### Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: A, B5, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

### **European Union Regulations:**

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the

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

**Product Number (s): 05110, 05610**

Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

**Additional Regulatory Information:** None

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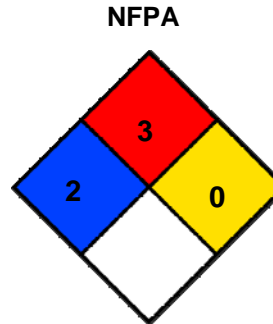
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## Section 16: Other Information

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HMIS® (II)	
Health:	2
Flammability:	3
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 599C  
Revision Date: 09/09/2010

Changes since last revision: new part # added

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. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substance List  
g/L: grams per Liter  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
IMO: International Maritime Organization  
lbs./gal: pounds per gallon  
LC: Lethal Concentration  
LD: Lethal Dose

NA: Not Applicable  
ND: Not Determined  
NIOSH: National Institute of Occupational Safety & Health  
NFPA: National Fire Protection Association  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PMCC: Pensky-Martens Closed Cup  
PPE: Personal Protection Equipment  
ppm: Parts per Million  
RoHS: Restriction of Hazardous Substances  
STEL: Short Term Exposure Limit  
TCC: Tag Closed Cup  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Information System



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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

**Product Number (s):** 05678

**Product Use:** Fuel-Injection Air Intake Cleaner

### Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

[www.crcindustries.com](http://www.crcindustries.com)

1-215-674-4300 (General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.

2-1246 Lorimar Drive

Mississauga, Ontario L5S 1R2

[www.crc-canada.ca](http://www.crc-canada.ca)

1-905-670-2291

In Mexico:

CRC Industries Mexico

Av. Benito Juárez 4055 G

Colonia Orquídea

San Luís Potosí, SLP CP 78394

[www.crc-mexico.com](http://www.crc-mexico.com)

52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

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## Section 2: Hazards Identification

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### Emergency Overview

**DANGER:** Extremely Flammable. Vapors May Cause Flash Fires. Harmful if Inhaled or Swallowed.  
Eye and Skin Irritant. Contents Under Pressure.

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

Appearance & Odor: Clear, colorless liquid; ketone odor

### Potential Health Effects:

#### ACUTE 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. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects.

**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, disorientation, unconsciousness).

**INGESTION:** Main hazard is aspiration. This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage. Swallowing this material may also cause nausea and diarrhea. Acetone poisoning may result in liver and kidney damage.

**CHRONIC EFFECTS:** Exposure to high concentrations of this material may increase the sensitivity of the heart to certain drugs. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

**TARGET ORGANS:** liver, kidneys, central nervous system

Medical Conditions Aggravated by Exposure: skin sensitivities, respiratory (asthma-like) disorders

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

**Product Number (s): 05678**

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

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### Section 3: Composition/Information on Ingredients

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COMPONENT	CAS NUMBER	% by Wt.
Acetone	67-64-1	75 - 85
Heptane isomers	142-82-5	4 - 8
Toluene	108-88-3	2 - 5
Diacetone alcohol	123-42-2	< 1
Carbon dioxide	124-38-9	5 - 15

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### Section 4: First Aid Measures

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**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. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents. The use of other drugs with less arrhythmogenic potential should be considered.

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### Section 5: Fire-Fighting Measures

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**Flammable Properties:** This product is extremely flammable in accordance with aerosol flammability definitions.

(See 16 CFR 1500.3(c)(6) ).

Flash Point: < 0°F / < -18°C (TCC)	Upper Explosive Limit: 12.8
Autoignition Temperature: 869°F / 465°C	Lower Explosive Limit: 2.5

**Fire and Explosion Data:**

**Suitable Extinguishing Media:** Dry chemical, carbon dioxide, alcohol-resistant foam, Class B extinguishers

**Products of Combustion:** Oxides of carbon

**Explosion Hazards:** Aerosol containers, when exposed to heat from fire, may build pressure and rupture. Vapors may accumulate in a confined space and create a flammable atmosphere.

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

**Product Number (s): 05678**

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## Section 6: Accidental Release Measures

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**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.

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## Section 7: Handling and Storage

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**Handling Procedures:** Do not use near potential sources of ignition. Wash thoroughly after use and before handling food. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

**Storage Procedures:** Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Aerosol cans must be maintained below 120 F to prevent cans from rupturing. Keep away from incompatible materials.

**Aerosol Storage Level:** III

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## Section 8: Exposure Controls/Personal Protection

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### **Exposure Guidelines:**

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Acetone	1000	NE	500	750	NE		ppm
Heptane	500	NE	400	500	NE		ppm
Toluene	200	300 (c)	20	NE	NE		ppm
Diacetone alcohol	50	NE	50	NE	NE		ppm
Carbon dioxide	5000	30000(v)	5000	30000	NE		ppm
N.E. – Not Established      (c) – ceiling      (s) – skin      (v) – vacated							

### **Controls and Protection:**

**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. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.



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

**Product Number (s): 05678**

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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.

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## Section 9: Physical and Chemical Properties

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Physical State: liquid

Color: clear, colorless

Odor: ketone

Odor Threshold: ND

Specific Gravity: 0.785

Initial Boiling Point: 132° / 56°C

Freezing Point: < -100°F / -73°C

Vapor Pressure: ND

Vapor Density: 2 (air = 1)

Evaporation Rate: fast

Solubility: slightly soluble in water

Coefficient of water/oil distribution: ND

pH: NA

Volatile Organic Compounds: wt %: 9.1 g/L: 71.4 lbs./gal: 0.6

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## Section 10: Stability and Reactivity

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Stability: Stable

Conditions to Avoid: Sources of ignition; temperature extremes

Incompatible Materials: Avoid contact with alkalis, reducing agents, acids and oxidizers such as chlorine and other halogens, chromates, perchlorates, peroxides and oxygen.

Hazardous Decomposition Products: Oxides of carbon, various hydrocarbons

Possibility of Hazardous Reactions: No

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## Section 11: Toxicological Information

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

### Acute Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Acetone	5800 mg/kg	No data	50,100 mg/m <sup>3</sup> /8H
Heptane	No data	No data	103 g/m <sup>3</sup> /4H
Toluene	636 mg/kg	14,100 µL/kg	49 g/m <sup>3</sup> /4H
Diacetone alcohol	2520 mg/kg	13,500 mg/kg	No data
Carbon dioxide	No data	No data	470,000 ppm/30M

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

**Product Number (s): 05678**

**Chronic Toxicity:**

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
Acetone	No	No	No	E & S (moderate) / R (mild)	Yes
Heptane	No	No	No	E & R (mild) / S (moderate)	Unknown
Toluene	No	No	No	E, S & R (mild)	Unknown
Diacetone alcohol	No	No	No	E (moderate) / R (mild)	Unknown
Carbon dioxide	No	No	No	No	No

E – Eye      S – Skin      R - Respiratory

Reproductive Toxicity:      No information available  
Teratogenicity:              No information available  
Mutagenicity:                No information available  
Synergistic Effects:        No information available

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**Section 12: Ecological Information**

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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**

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**Waste Classification:**      The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with the following potential waste code(s) D001. Pressurized containers may be a D003 reactive waste. (See 40 CFR Part 261.20 – 261.33)  
Empty aerosol containers may be recycled.

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

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**Section 14: Transport Information**

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US DOT (ground):              Consumer Commodity, ORM-D  
ICAO/IATA (air):                Consumer Commodity, ID8000, 9  
IMO/IMDG (water):              Aerosols, UN1950, 2.1, Limited Quantity  
Special Provisions:              None

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

**Product Number (s): 05678**

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## **Section 15: Regulatory Information**

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### **U.S. Federal Regulations:**

#### 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)

**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 (2.5%)

#### Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): Toluene

### **U.S. 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

Consumer Products VOC Regulations: In states with consumer products VOC regulations, this product is compliant as a Fuel-Injection Air Intake Cleaner.

#### State Right to Know:

New Jersey: 67-64-1, 108-88-3, 142-82-5, 124-38-9, 123-42-2

Pennsylvania: 67-64-1, 108-88-3, 142-82-5, 124-38-9, 123-42-2

Massachusetts: 67-64-1, 108-88-3, 142-82-5, 124-38-9, 123-42-2

Rhode Island : 67-64-1, 108-88-3, 142-82-5, 124-38-9, 123-42-2

### **Canadian Regulations:**

#### Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: A, B5, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

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

**Product Number (s): 05678**

**European Union Regulations:**

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

**Additional Regulatory Information:** None

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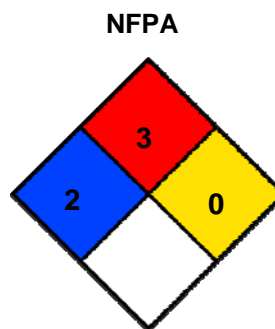
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**Section 16: Other Information**

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HMIS® (II)	
Health:	2
Flammability:	3
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 464K  
Revision Date: 09/10/2010

Changes since last revision: New product

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. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substance List  
g/L: grams per Liter  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
IMO: International Maritime Organization  
lbs./gal: pounds per gallon  
LC: Lethal Concentration  
LD: Lethal Dose

NA: Not Applicable  
ND: Not Determined  
NIOSH: National Institute of Occupational Safety & Health  
NFPA: National Fire Protection Association  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PMCC: Pensky-Martens Closed Cup  
PPE: Personal Protection Equipment  
ppm: Parts per Million  
RoHS: Restriction of Hazardous Substances  
STEL: Short Term Exposure Limit  
TCC: Tag Closed Cup  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Information System