



FLEETGUARD DCA-4 LIQUID

MSDS No.:LT16571

MSDS Preparation Date: May 4, 2006

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MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product identifier : **FLEETGUARD DCA-4 LIQUID**

Product Code(s) : DCA 60L (1 Pint / 473 mL); DCA 65L (64 ounce / 1.89L); DCA 75L (5 Gallon / 208 L Pail); DCA 80L (55 Gallon / 208 L Drum); DCA 70L (1 gallon/3.785 L) ; 391412663 (bulk).

Product Use : Cooling system additive.

Chemical Family : Mixture.

Supplier's name and address:
Cummins Filtration
1200 Fleetguard Road
Cookeville, TN, U.S.A.
38506

Manufacturer's name and address:
Refer to Supplier

Information Telephone No. : (931) 526-9551 (Hours of operation: 24 Hours per day, 7 days per week)

24 Hr. Emergency Tel # : Chemtrec (800) 424-9300 (Within Continental U.S.); Chemtrec (703) 527-3887 (Outside U.S.).

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
			<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Potassium nitrate	7757-79-1	1.0 - 5.0	N/Av	N/Av	N/Av	N/Av
Sodium molybdate	7631-95-0	1.0 - 5.0	0.5 mg/m ³	N/Av	5 mg/m ³	N/Av
Adipic acid	124-04-9	1.0 - 5.0	5 mg/m ³	N/Av	N/Av	N/Av
Potassium phosphate	7758-11-4	7.0 - 13.0	N/Av	N/Av	N/Av	N/Av
Sodium nitrite	7632-00-0	1.0 - 5.0	N/Av	N/Av	N/Av	N/Av

Note: The ACGIH TLV and OSHA PEL listed above for Sodium molybdate is as 'Molybdenum, soluble compounds'.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Blue liquid. Little or no odour. DANGER! Contains a strong oxidizer. Contact with combustible material may cause fire. Harmful or fatal if inhaled or swallowed. Contains material which may cause adverse blood system effects. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Causes eye irritation. May cause skin and respiratory irritation.

POTENTIAL HEALTH EFFECTS

Target organs : Eyes, skin, respiratory system, digestive system, central nervous system, blood system.

Routes of exposure : *Inhalation:* YES *Skin Absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES

Signs and symptoms of short-term (acute) exposure

Inhalation: Harmful if inhaled. If mists are formed, may cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, chest pain and shortness of breath. May be absorbed following inhalation, and cause additional symptoms similar to those listed for ingestion.

Skin: May cause mild to moderate skin irritation. Product may be absorbed and cause symptoms similar to those listed for ingestion.

Eyes: Causes severe eye irritation. Symptoms will include pain, redness and tearing.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Ventilation and engineering measures** : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Local exhaust ventilation is preferred to prevent contaminant dispersion into work area.
- Respiratory protection** : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.
- Skin protection** : Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.
- Eye / face protection** : Chemical splash goggles are recommended. A full face shield may also be necessary.
- Other protective equipment** : Emergency showers and eyewash facilities should be nearby. Wear a chemically resistant apron and long sleeves when dispensing, to prevent skin contact.
- General hygiene considerations** : Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. When using do not eat or drink. When using do not smoke. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.
- Permissible exposure levels** : For individual ingredient exposure levels, see Section 2.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.	Appearance	: Blue liquid.
Odour	: Little or no odour.	Odour threshold	: N/Av
pH	: 10.0 - 11.0		
Boiling point	: 100°C / 212°F	Specific gravity	: 1.13 - 1.15
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: 760 @ 100°C / 212°F	Solubility in water	: Complete
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: N/Av	Volatiles (% by weight)	: N/Av

SECTION 10 - REACTIVITY AND STABILITY DATA

- Stability and reactivity** : Stable under the recommended storage and handling conditions prescribed. However, substance may be considered a strong oxidizer. Contact with combustible material may cause fire.
- Hazardous polymerization** : Will not occur.
- Conditions to avoid** : Avoid excessive heat, sparks and open flame. Do not use in areas without adequate ventilation. Keep away from flammable and combustible materials.
- Materials To Avoid And Incompatibility** : Incompatible materials (see Section 7).
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

- Toxicological data** : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

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<u>Ingredients</u>	<u>LC₅₀(4hr)</u> <u>inh. rat</u>	<u>LD₅₀</u>	
		<u>oral</u>	<u>dermal</u>
Potassium nitrate	N/Av	3540 mg/kg (rat)	N/Av
Sodium molybdate	>2080 mg/m3	4000 mg/kg (rat)	N/Av
Adipic acid	N/Av	> 5000 mg/kg (rat); 1900 mg/kg (mouse)	N/Av
Potassium phosphate	N/Av	N/Av	N/Av
Sodium nitrite	5.5 mg/m3	180 mg/kg (rat)	N/Av

- Carcinogenic status** : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
- Reproductive effects** : None known.
- Teratogenicity** : None known.
- Mutagenicity** : None known.
- Epidemiology** : Not available.
- Sensitization to material** : None known.
- Synergistic materials** : Not available.
- Irritancy** : Mild to moderate skin irritant. Severe eye irritant.
- other important hazards** : None known.

SECTION 12 - ECOLOGICAL INFORMATION



- Environmental effects** : The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
- Important environmental characteristics** : Not available.
- Ecotoxicological** : No data is available on the product itself.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle waste according to recommendations in Section 7.
- Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 - TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	None	Not regulated.	Not regulated	-None-	
49CFR/DOT Additional information	Not regulated for road or rail shipment if packaged in non-bulk containers (450 L / 119 Gallons or less each). If the quantity of Sodium nitrite is greater than 100 lbs. (45.4 kg) per package (one single package would weigh >2000 lbs.), the following DOT shipping description applies: RQ Environmentally hazardous substances, liquid, n.o.s. (Sodium nitrite), 9, UN3082, III.				
TDG	None	Not regulated.	Not regulated	-None-	



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TDG Additional information	None.				
ICAO/IATA	None	Not regulated.	Not regulated	-None-	
ICAO/IATA Additional information	None.				
IMDG	None	Not regulated.	Not regulated	-None-	
IMDG Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): sodium nitrite (100 lbs.); Adipic acid (5000 lbs.).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic health hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: sodium nitrite.

US State Right to Know Laws:

New Jersey Labeling Requirements: This product contains the following substances required to be disclosed on product labeling: Potassium phosphate (CAS # 7758-11-4, 7 - 13%); Potassium nitrate (CAS # 7757-79-1, 1 - 5%); sodium nitrite (CAS # 7632-00-0, 1 - 5%); Sodium molybdate (CAS # 7631-95-0, 1 - 5%); Adipic acid (CAS # 124-04-9, 1 - 5%). Potassium phosphate and Sodium molybdate are not considered hazardous substances in the State of New Jersey.

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

International Information:

Canadian WHMIS Classification: Class C (Oxidizing Material); Class D1A (Materials Causing Immediate and Serious Toxic Effects, Very Toxic Material); Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

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

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SECTION 16 - OTHER INFORMATION

HMIS Rating : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

*Health: * 3 Flammability: 0 Reactivity: 1*

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstract Services
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 CFR: Code of Federal Regulations
 CSA: Canadian Standards Association
 DOT: Department of Transportation
 EPA: Environmental Protection Agency
 NFPA: National Fire Protection Association
 HMIS: Hazardous Materials Identification System
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organisation
 IMDG: International Maritime Dangerous Goods
 Inh: Inhalation
 N/Ap: not applicable
 N/Av: not available
 NIOSH: National Institute of Occupational Safety and Health
 NTP: National Toxicology Program
 OSHA: Occupational Safety and Health Administration
 PEL: Permissible Exposure Limit
 RCRA: Resource Conservation and Recovery Act
 RTECS: Registry of Toxic Effects of Chemical Substances
 SARA: Superfund Amendments & Reauthorization Act
 STEL: Short Term Exposure Limit
 TLV: Threshold Limit Values
 TWA: Time Weighted Average
 WHMIS: Workplace Hazardous Materials Identification System

- References** :
1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2005.
 2. International Agency for Research on Cancer Monographs, searched 2006.
 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2006 (Chempendium, HSDB and RTECs).
 4. Material Safety Data Sheet from manufacturer.
 5. California Proposition 65 List - February 3, 2006 version.

<p>Prepared for: Cummins Filtration 1200 Fleetguard Road Cookeville, Tennessee, U.S.A., 38506</p> <p>http://www.fleetguard.com</p>	
<p>Prepared by: ICC The Compliance Center Inc. Canada: 1-888-977-4834 USA: 1-888-442-9628</p> <p>http://www.thecompliancecenter.com</p>	



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