



**Material Safety Data Sheet**

**FIR No.:** 184845  
**Version Number:** US-US-1

**Level:** 1  
**Release Date:** 2009-12-02

**1. Product and Company Identification**

**Product Name:** Diesel Cooling System Additive  
**Product Code:** See Attachment  
**Application:** Antifreeze/Coolant Additive (Reinhibitor) For Use In Diesel Engine Cooling Systems  
**Supplier:** Ford Motor Company  
 Attention: MSDS Information, P.O. Box 1899  
 Dearborn, Michigan 48121  
 1-800-392-3673  
**Emergency Telephone:** Poison Control Center: 1-800-959-3673  
 CHEMTREC: U.S. and Canada: 1-800-424-9300  
 CHEMTREC: International: 1-703-527-3887

**2. Composition/Information on Ingredients**

This chemical product is a preparation.

Chemical Name	CAS Number	Percent Concentration	Hazard Classification
SODIUM MOLYBDATE	7631-95-0	1-5	HAZCOM WHMIS 1
SODIUM NITRITE	7632-00-0	1-5	SARA 313 RSMS_D_ALL WHMIS 1 RQ

**3. Hazards Identification**

CAUTION  
 Oxidizing material.

**Health:** This product is harmful by inhalation and when in contact with the skin. This product is severely irritating to the eyes. May cause irritation to the eyes, characterized by a burning sensation, redness, and excessive watering. May cause severe irritation and burns of the nose, throat, and respiratory tract. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful or fatal if swallowed. Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin. This product may cause methemoglobinemia (the presence of methemoglobin--an abnormal form of hemoglobin--in the blood).

**Physical and Chemical Hazards:** This product is essentially non-flammable.



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**4. First-Aid Measures**

**Inhalation:** If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If irritation persists, get medical attention.

**Skin Contact:** Immediately take off all contaminated clothing. For skin contact flush immediately with large amounts of water for at least 15 to 20 minutes. If irritation persists, get medical attention.

**Eye Contact:** In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical attention. Get immediate medical attention and monitor the eye daily as advised by your physician.

**Ingestion:** If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Notes to a Physician:** If the affected person is not breathing, apply artificial respiration.

**5. Fire-Fighting Measures**

**Extinguishing Media:** Use any media suitable for the surrounding fires. Water

**Specific Methods:** Water may be used to cool exposed containers to prevent pressure build-up and explosion when exposed to extreme heat. Use water to cool fire-exposed containers, structures, and to protect personnel.

**Specific Hazards:** Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may yield oxides of nitrogen upon decomposition. Irritating and toxic gases or fumes may be released during a fire. Due to pressure buildup, closed containers exposed to excess heat may explode. Empty containers may retain product residue including Flammable or Explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.

**Protection of Firefighters:** Fire fighters should be equipped with NIOSH-approved, self-contained breathing apparatus (SCBA) and full protective clothing.



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6. Accidental Release Measures

Personal Precautions: Ventilate the contaminated area. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Avoid inhalation of vapor, fumes, dust and/or mist from the spilled material. Avoid skin contact with the spilled material. Wear appropriate protective equipment and clothing during clean-up. Wear protective gloves and, in case of splashes, goggles/face shield too.

Environmental Precautions: Do not allow the spilled product to enter public drainage system or open water courses. Do not allow this material to drain into sewers/water supplies.

Methods for Cleaning Up: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb the spilled material with an inert absorbent (nonflammable) material. Do not use combustible materials such as sawdust. In case of large spills, follow all facility Emergency Response Procedures. When product is used to mitigate a hazardous material, the resultant material must be handled in the same fashion as the hazardous material.

7. Handling and Storage

Handling:

Technical Measures: Do not smoke or use open fire or other sources of ignition.

Precautions and Advice for Safe Handling: Do not breathe gas/fumes/vapor/spray. Do not get this material in your eyes, on your skin, or on your clothing. Eliminate all sources of ignition. Keep the container closed when not in use. Use with adequate ventilation. Wear protective equipment during handling.

Storage: Technical Measures: Do not allow the product to freeze.

Storage Conditions: Store in a cool, well-ventilated area away from incompatibles. Store this product away from strong oxidizing agents. Store this product away from acids. This is an oxidizing agent - avoid bringing it into contact with an organic material. Do not store this material in open or unlabeled containers. Keep away from children.



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**8. Exposure Controls/Personal Protection**

**Engineering Measures:**

Eyewash and emergency showers are recommended. Use adequate ventilation to control airborne concentrations below the exposure limits/guidelines. If user operations generate a vapor, dust, and/or mist, use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits/guidelines.

**Personal Protective Equipment:**

**Respiratory Protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard 29 CFR 1910.134 and/or Canadian Standard CSA Z94.4.

**Hand Protection:**

Use of impervious gloves is required, such as neoprene or nitrile rubber gloves.

**Eye Protection:**

Wear chemical goggles; face shield (if splashing is possible).

**Skin and Body Protection:**

Wear protective clothing, including impermeable apron constructed of neoprene rubber, or nitrile rubber. Wash thoroughly after handling.

**Hygiene Measures:**

Wash contaminated clothing before reuse. When using this material, do not eat, drink or smoke.



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**9. Physical and Chemical Properties**

**Specific Gravity:** 1.13-1.15  
**Physical State:** LIQUID  
**Odor:** ODORLESS  
**Color:** YELLOW  
**pH:** 10.5 100% V/V ASTM D1293

**Temperature Range During which Changes in Physical State Occur:**

Boiling Point: 100 °C (212F)

**Flash Point:** N.AP

**Explosion Properties:**

UEL: N.AP

LEL: N.AP

**Vapor Pressure:** 760@100°C mmHg

**Solubility:** COMPLETE IN WATER

**Viscosity:** N.AP

**Evaporation Rate:** N.AV

**10. Stability and Reactivity**

**Stability:** This is a stable material.  
 Hazardous polymerization will not occur.  
 The product can initiate spontaneous combustion of paper, wood, cloth and other organic materials.

**Conditions and Materials to Avoid:** This product may react with strong oxidizing agents (bleach--sodium hypochlorite, calcium hypochlorite, hydrogen peroxide, permanganate, nitric acid, concentrated OXYGEN, perchlorates).  
 This product is an OXIDIZING AGENT - avoid contact with organic material.  
 This product may react with strong acids.  
 This product may react with strong reducing agents.  
 Bringing this product into contact with combustible material may cause a fire.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, and other low molecular weight hydrocarbons.  
 Decomposition of this product may yield metallic oxides.  
 Decomposition of this product may yield oxides of nitrogen upon decomposition.  
 Irritating and/or toxic fumes may be emitted upon the product's decomposition.



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**11. Toxicological Information**

**Skin Contact:** Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.

**Eye Contact:** Produces irritation to the eyes, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.

**Chronic (Long Term) Toxicity:** This material contains an ingredient which may cause blood disorders (anemia, abnormal blood patterns).

**12. Ecological Information**

Ecological testing has not been conducted on this product.

**13. Disposal Considerations**

**Waste from Residues:** Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulation.

**Contaminated Packaging:** No consideration given when disposed of according to local, state, and Federal regulations.



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**14. Transport Information**

**U.S. Department of Transportation (DOT) 49 - CFR 172.101**

This product is not regulated as a dangerous good.

**Canadian Transportation of Dangerous Goods (T.D.G.) - TDGR Schedule II**

This product is not regulated as a dangerous good.

**Secretary of Communication and Transportation (SCT) - NOM-002-SCT2/1994 (Mexico)**

This product is not regulated as a dangerous good.

**International and Domestic Air Transportation - ICAO & IATA Section 4.2**

This product is not regulated as a dangerous good.

**International Water Transportation - IMDG Code Amendment 31-02**

This product is not regulated as a dangerous good.

**15. Regulatory Information**

This product contains an ingredient(s) considered to be an environmental hazardous substance(s) by the State of New Jersey.

This product contains an ingredients(s) considered to be a hazardous substance(s) by the State of New Jersey.

This product contains an ingredient(s) considered to be a hazardous substance by the State of Pennsylvania (Pennsylvania Worker and Community Right to Know Act).

This product contains a toxic chemical or chemicals 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.

Material contains a chemical which is a Ford Motor Company Material of Concern. Use and release of this material should be minimized to the greatest extent possible.

**16. Other Information**

Key/Legend: N.AP = Not applicable; N.AV = Not available; ND = Not determined or No data; TLV = Threshold limit value; TWA = Time-weighted average; STEL = Short-term exposure limit; C = Ceiling limit

**HMIS and NFPA Hazard Class Information:**

**HMIS Hazard Class:** Health: 3 (Serious) Flammability: 0 (Least) Physical Hazard: 0 (Least)

**NFPA Hazard Class:** Health: 2 (Moderate) Flammability: 0 (Least) Instability: 1 (Slight)



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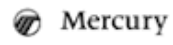
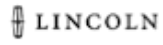
**Preparation Information:**

The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a manufacturer's MSDS is available upon request. Health and safety information has been evaluated by the Occupational and Environmental Health Sciences Department, Ford Motor Company, Diagnostic Service Center II, 1800 Fairlane Drive, Allen Park, MI 48101, USA.

**Disclaimer:**

The information on this data sheet represents our current data and is accurate to the best of our knowledge as to the proper handling of this product under normal conditions and in accordance with the application specified on the packaging and/or technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.





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**Attachment**

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<b>Product Code</b>	<b>Container Size</b>	<b>Part of Kit</b>	<b>Kit Product Code</b>
VC-8	16 fl. oz. (473 mL)		

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