



MATERIAL SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

MSDS ID: MSDS513

Product Name: DCA-2 Liquid
Supplemental Coolant Additive
Product Code: SP3781

Manufacturer:

US Office:
Honeywell Consumer Products Group
39 Old Ridgebury Road
Danbury, CT 06810-5109

Canadian Office:
Honeywell Consumer Products Group
3333 Unity Drive
Mississauga, Ontario L5L 3S6

Telephone: (800)862-7737

Telephone: (800)668-9349

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation: 10/30/06

Product Use: Cooling system additive for trucks

Section 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Sodium Tetraborate	1303-96-4	5-15%
Sodium Nitrate	7631-99-4	1-6%
Sodium Nitrite	7632-00-0	1-6%
Sodium Silicate	6834-92-0	1-4%

Section 3. HAZARDS IDENTIFICATION

This product is a blue liquid.

EMERGENCY OVERVIEW DANGER!

Oxidizer. Contact with other materials may cause fire. May cause eye and skin irritation. May be absorbed through the skin in harmful amounts. Inhalation of vapors or mists may cause respiratory irritation, coughing, nose bleeds, sore throat, shortness of breath and tightness in the chest. Harmful or fatal if inhaled, ingested or absorbed through the skin. May cause nitrite poisoning.

Section 4. FIRST AID MEASURES

Eye: Immediately flush eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get medical attention.

Skin: Remove contaminated clothing. Immediately wash skin thoroughly with soap and water. If irritation develops or persists, get medical attention. Launder clothing before re-use. (Discard contaminated shoes)



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Ingestion: DO NOT INDUCE VOMITING. If conscious, give one glass of water or milk. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

Inhalation: Immediately remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

Notes to Physicians: The principal toxic effects of sodium nitrite poisoning are vasodilation and/or methemoglobinemia. Hypotension with syncope and tachycardia are common findings. Coronary vasospasm due to acute withdrawal may be seen. Paradoxical bradycardia may occur rarely. Coronary ischemia and cerebrovascular disease can occur due to severe hypotension. Immediate life support measures should be provided because of associated hypotension, seizures, and methemoglobinemia-induced anoxia. Immediately contact a poison center or hospital emergency department for treatment advice. The specific antidote for nitric induced methemoglobinemia is methylene blue.

Section 5. FIRE FIGHTING MEASURES

Flashpoint: None

Flammable Limits: LEL: Not applicable UEL: Not applicable

Autoignition Temperature: Not available

Extinguishing Media: Use water to extinguish fire. Do not use dry chemicals or foams.

Unusual Fire or Explosion Hazards: Product may accelerate burning or decompose explosively. Liquid that comes in contact with combustibles may cause ignition.

Special Fire-Fighting Instructions: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Fight fire from maximum distance or use unmanned hose holders. Do not allow run-off from fire fighting to enter drains or water courses. Runoff may cause pollution.

Hazardous Combustion Products: Thermal decomposition may release carbon, nitrogen and sulfur oxide, nitrous oxide, sodium ions, silicic acid and hydrogen gas.

Explosion Data (sensitivity to mechanical impact or static discharge): Liquid may be sensitive to mechanical impact.

Section 6. ACCIDENTAL RELEASE MEASURES

Evacuate spill area and keep unprotected personnel away. Remove all combustible or flammable materials from spill area if it is safe to do so. Wear appropriate protective clothing as described in Section 8. Collect liquid with an inert absorbent and place into container. Do not use combustible absorbents or towels. Report releases as required by local, state and federal authorities.

Section 7. HANDLING AND STORAGE

Handling: Avoid contact with the eyes, skin and clothing. Avoid breathing vapors or mists. Wear protective clothing and equipment. Wash thoroughly with soap and water after handling. Keep away from all flammable or combustible materials such as solvents, oil, paper, cloth rags, etc.

Do not reuse containers. Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.



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Storage: Store in a dry, well ventilated area away from excessive heat and sources of ignition. Avoid storage on wooden floors.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Sodium Tetraborate	2 mg/m ³ TWA ACGIH TLV (inhalable) 6 mg/m ³ STEL ACGIH TLV (inhalable)
Sodium Nitrate	None Established
Sodium Nitrite	None Established
Sodium Silicate	None Established

Engineering Controls: General ventilation is adequate for normal use.

Respiratory Protection: If exposure limits are exceeded a NIOSH approved particulate respirator (N95 or better filters) may be worn. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Wear impervious gloves such as rubber to prevent contact.

Eye Protection: Chemical safety goggles are recommended.

Other: Wear impervious clothing as needed to prevent contact. A safety shower and eyewash should be available in the immediate work area.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Blue liquid.

Physical State: Liquid	Boiling Point: 212°F (100°C)
Vapor Density: Not applicable	Vapor Pressure: 760 @ 100°C
Solubility In Water: 100%	Evaporation Rate: Not determined
Specific Gravity: 1.14-1.16	pH: 11.3-12.0
Melting Point: Not applicable	Octanol/Water Coefficient: Not determined

Section 10. STABILITY AND REACTIVITY

Stability: Stable under normal storage and handling conditions.

Incompatibility: Strong acids, reducing agents, cyanides, alkaloids, metallic salts and fluorine. May ignite on contact with organic materials.

Hazardous Decomposition Products: Thermal decomposition may release carbon, nitrogen and sulfur oxides, nitrous oxide, sodium ions, silicic acid and hydrogen gas.

Hazardous Polymerization: Will not occur.

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Ingestion: Ingestion may cause gastrointestinal irritation, dizziness, nausea, vomiting, bloody diarrhea, low blood pressure, convulsions, increase in urine output, and collapse. Overexposure to sodium nitrite may cause nitrite poisoning with symptoms including nausea, dizziness, vertigo, vomiting, collapse, cyanosis, abdominal pain, methemoglobinemia, rapid heart beat, irregular breathing, coma, convulsions, circulatory collapse and death.

Inhalation: Inhalation of vapors or mists may cause respiratory irritation with symptoms of coughing, nose bleeds, sore throat, shortness of breath and tightness in the chest. Overexposure to sodium nitrite may occur with symptoms similar to those listed under ingestion.

Eye: Contact may cause irritation with redness, tearing and pain.

Skin: Contact may cause irritation with redness, itching and pain. Sodium nitrite and sodium tetraborate may be absorbed through the skin causing effects similar to those described under inhalation and ingestion.

Sensitization: This product is not expected to cause sensitization.

Chronic: Prolonged or repeated exposure may cause mild gastroenteritis, dermatitis, eczema, headache, mental impairment, loss of hair, bronchitis, laryngitis, conjunctivitis, kidney and liver damage and anemia. Sodium tetraborate, sodium nitrate and sodium silicate have been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals.

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

Mutagenicity: Sodium tetraborate and sodium nitrate have tested positive for mutagenicity in some test systems.

Medical Conditions Aggravated by Exposure: Employees with pre-existing skin, respiratory and kidney disease may be at increased risk from exposure.

Acute Toxicity Values:

Sodium Tetraborate: Oral Rat LD50 – 2,660 mg/kg

Sodium Nitrate: Oral Rat LD50 – 1,267 mg/kg

Sodium Nitrite: Oral Rat LD50 - 180 mg/kg

Sodium Silicate: Oral Rat LD50 – 1,153 mg/kg

Section 12. ECOLOGICAL INFORMATION

Sodium Nitrate: LC50/96-hour fathead minnow: >1,000 mg/L

LC50 96-hour daphnia: >1,000 mg/L

Sodium Nitrite: LC50/96 hour minnow: >100 mg/L

Sodium Tetraborate: LC50/96-hour fish: 74 mg/L

EC50/24-hour daphnia: 242 mg/L

Sodium Silicate: 96 hour mean tolerance fish: 2320 ppm

96 hour mean tolerance daphnia: 247 ppm

Section 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.



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Section 14. TRANSPORT INFORMATION

Inner packagings not over 5 kg (11 lbs.) net capacity can be re-classified as a consumer commodity

Dot Hazardous Materials Description:

Proper Shipping Name: Oxidizing, liquid, n.o.s. (Sodium Nitrite, Sodium Nitrate)

UN Number: UN3139

Hazard Class/Packing Group: 5.1, PG III

Labels Required: Oxidizer

Note: If >1,666 pounds of this product in a single container, RQ requirements apply.

Section 15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 1,666 lbs. based on the RQ for Sodium Nitrite of 100 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute health, chronic health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Sodium Nitrite	7632-00-0	1-6%
Nitrate Compounds (Sodium Nitrate)	7631-99-4	1-6%

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

CANADA:

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

Canadian WHMIS Classification: Class C (Oxidizing Material); Class D - Division 2 - Subdivision B - (A toxic material causing other chronic effects)

Section 16. OTHER INFORMATION

NFPA Rating: Health = 1 Fire = 0 Instability = 0 Special: OXY

HMIS Rating: Health = 2* Fire = 0 Physical Hazards = 0

Revision Summary: Footer: Corrected pagination



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Disclaimer of Liability:

The information contained herein is based on the data available to us and, is to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we assume no liability for damages incurred by use of this material. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist. Users of this product should satisfy themselves that the conditions and methods of use assure the product is used safely. No representations or warranties, either expressed or implied, or any nature are made hereunder with respect to the information contained within. It is the responsibility of the user to comply with all federal, state or local laws and regulations that may exist. Nothing contained herein is to be construed as a recommendation for use in violation of any applicable laws or regulations.

Consult Honeywell CPG for further information.