



SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

SDS ID: SDS513

Product Name: DCA-2 Liquid Supplemental Coolant Additive

Product Code: SP3781

Manufacturer:

US Office:

FRAM Group Operations LLC
Perrysburg, OH 43551

Canadian Office:

FRAM Group (Canada), Inc.
Mississauga, Ontario L5L 3S6

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(800)890-2075 (in the US)

(800)668-9349 (in Canada)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US)

CANUTEC (613)996-6666 (in Canada)

SDS Date of Preparation: 07/31/2014

Product Use: Cooling system additive for trucks

Section 2. HAZARDS IDENTIFICATION

GHS/HAZCOM 2012 Classification:

Health	Physical
Eye Corrosion Category 1 Skin Corrosion Category 1	Metal Corrosive

Label Elements



DANGER!

H290 May be corrosive to metals

H314 Causes severe skin burns and eye damage

Prevention:

P234 Keep only in original container.

P260 Do not breathe mists.

P264 Wash exposed skin thoroughly after handling.



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P280 Wear protective gloves, protective clothing, eye protection, and face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 Immediately call a POISON CENTER or doctor.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P310 Immediately call a POISON CENTER or doctor.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material-damage.

Storage:

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents and container in accordance with local and national regulations.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Disodium tetraborate	1330-43-4	7-13%
Sodium Nitrite	7632-00-0	7-13%
Sodium Nitrate	7631-99-4	1-5%
Sodium Silicate	6834-92-0	1-5%

The exact concentrations are a trade secret.

Section 4. FIRST AID MEASURES

Eye: Immediately flush eyes with large quantities of water for at least 20 minutes, holding the eyelids apart. Get immediate medical attention.

Skin: Remove contaminated clothing. Immediately wash skin thoroughly with soap and water for at least 15 minutes. If irritation develops or persists, get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes)

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 immediate medical attention.



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Most Important Symptoms: Corrosive. May cause eye and skin burns. Harmful or fatal if inhaled, ingested or absorbed through the skin. May cause nitrite poisoning. Inhalation of mists may cause respiratory irritation, coughing, nose bleeds, sore throat, shortness of breath and tightness in the chest.

Indication of Immediate Medical Attention and Special Treatment, If Needed: Seek immediate medical attention for all routes of exposures to liquid.

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

Suitable Extinguishing Media: Use media appropriate to the surrounding materials. Use water to extinguish fire. Do not use dry chemicals or foams. Some chemical extinguishing agents may react with this material.

Specific Hazards Arising From the Chemical: Product may accelerate burning. Liquid that comes in contact with combustibles may aid in the possibility of ignition. Thermal decomposition may release carbon, nitrogen and sulfur oxide, nitrous oxide, sodium ions, silicic acid and hydrogen gas.

Special Fire Fighting Procedures: 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.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: 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.

Methods and Materials for Containment / Cleanup: 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

Precautions for Safe Handling: Prevent 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. Liquid contains an oxidizer which may enhance combustion if allowed to dry on flammable or combustible materials. Keep away from all flammable or combustible materials such as solvents, oil, paper, cloth rags, etc.



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

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

NFPA CLASSIFICATION: None

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

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

Appropriate Engineering Controls: General ventilation is adequate for normal use.

Personal Protective Equipment

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 Protective Equipment / Clothing: 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: Blue liquid.	Odor: Slight
Odor Threshold: Not Determined	pH: 11.3-12.0
Melting/Freezing Point: Not applicable	Boiling Point: 212°F (100°C)
Flashpoint: None	Evaporation Rate: Not determined
Flammability (Solid, Gas): Not applicable	Flammable Limits: LEL: Not applicable UEL: Not applicable
Vapor Pressure: 760 @ 100°C	Vapor Density (Air = 1): Not applicable
Specific Gravity: 1.14-1.16	Solubility In Water: 100%
Partition Coefficient (n-octanol/water): Not determined	Autoignition Temperature: Not available
Decomposition Temperature: Not determined	Viscosity: Not determined



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Section 10. STABILITY AND REACTIVITY

Reactivity: May aid in ignition if allowed to dry in contact with organic materials.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None expected under normal use conditions.

Conditions to Avoid: High temperatures, and organic materials.

Incompatibility Materials: 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.

Section 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Acute Hazards:

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: Contact may cause eye burns or damage; and severe irritation with redness, tearing and pain.

Skin Contact: Contact may cause burns and severe 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.

Chronic Effects: 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.



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

Acute Toxicity Values:

Product:	Oral Rat LD50 - 4200 mg/kg
Sodium Nitrite:	Oral Rat LD50 - 180 mg/kg Inhalation Rat LC50 - 5.5 mg/L /4hr
Disodium Tetraborate :	Oral Rat LD50 - 2660 mg/kg Skin Rabbit LD50 - >1055 mg/kg Inhalation Rat LC50 - >2 mg/L/4hr
Sodium Nitrate:	Oral Rat LD50 - 3430 mg/kg Skin Rabbit LD50 - >5000 mg/kg
Sodium Silicate:	Oral Rat LD50 - 1153 mg/kg Skin Rabbit LD50 - >5000 mg/kg Inhalation Rat LC50 - >2.06 mg/L/4hr

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:

Sodium Nitrite:	LC50: Western mosquitofish, female 1.5 mg/L/ 96 hr. LC50: Daphnia magna 8.3 mg/L /96 hr.
Disodium Tetraborate:	LC50 Gambusia affinis (Western mosquitofish) 104 mg/L/96 hr LC50 Daphnia magna (Water flea, neonate) 141 mg /L/48 hr
Sodium Nitrate:	LC50 Oncorhynchus my kiss (Rainbow trout) 1658 mg/L/96 hr. LC50 Daphnia magna (Water flea) 3581 mg/L /48 hr.
Sodium Silica:	LC50: Brachydanio rerio 210 mg/L/96 hr.

Persistence and Degradability:

Sodium Nitrite:	Does not volatilize, and is likely to remain in water until consumed by plants or other organisms.
Disodium Tetraborate:	Inorganic natural mineral.



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Sodium Nitrate: Does not volatilize, and is likely to remain in water until consumed by plants or other organisms.

Bioaccumulative Potential:

Disodium Tetraborate: BCF 121 suggests the potential for bio concentration in aquatic organisms is low.

Mobility in Soil:

Disodium Tetraborate: Absorbed by mineral portion of soil. Slowly leached.

Other Adverse Effects: None known

Section 13. DISPOSAL CONSIDERATIONS

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

Section 14. TRANSPORT INFORMATION

U.S. DOT HAZARD CLASSIFICATION (For Ground Shipments Only): Not Regulated

If the quantity of Sodium nitrite is greater than 100 lbs. (45.4 kg) per package (one single package would weigh >769 lbs.), the following DOT shipping description applies:

RQ Environmentally hazardous substances, liquid, n.o.s. (Sodium nitrite), 9, UN3082, III.

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION (For Ground Shipments Only): Not Regulated

PACKING GROUP: None

Section 15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 769 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.

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	7-13%
Nitrate Compounds (Sodium Nitrate)	7631-99-4	1-5%



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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 SDS discloses information elements required by the CPR.

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

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List. (DSL)

Section 16. OTHER INFORMATION

NFPA Rating: Health = 3 Fire = 0 Instability = 0
HMIS Rating: Health = 3 Fire = 0 Physical Hazards = 0

Revision Summary: All Sections – conversion to Hazcom 2012 classification and labeling and format.

SDS Date of Preparation/Revision: July 31, 2014

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 and 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 Fram Group 1-800-890-2075 for further information.