



SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

SDS ID: SDS687

Product Name: FRAM® Coolant Filter BTE

Product Code: FPR11083

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: 09/11/2014

Product Use: Cooling system filter for trucks

Section 2. HAZARDS IDENTIFICATION

GHS/HAZCOM 2012 Classification:

This product is a manufactured article (truck coolant filter) containing solid pellets. The filter unit is sealed so no contact with the contents occurs during normal handling or use. No adverse effects are expected with normal handling of the metal filter. Contact with the pellets may cause adverse effects and are classified as follows:

Health	Physical
Acute Toxicity Category 3 Eye Corrosion Category 1 Skin Corrosion Category 1 Skin Sensitizer Category 1	Oxidizing Solid Category 2 Metal Corrosive

Label Elements



SAFETY DATA SHEET

SDS687

**FRAM® Coolant Filter BTE
FPR 11083**

DANGER!

H272 May intensify fire; oxidizer
H290 May be corrosive to metals
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage
H317 May cause allergic skin reaction.

Prevention:

P210 Keep away from heat, sparks, open flames, hot surfaces. - No smoking.
P220 Store away from clothing, and combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P234 Keep only in original container.
P260 Do not breathe dust.
P264 Wash exposed skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
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.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
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.
P370 + P378 In case of fire: Use dry chemicals, CO₂, water spray (fog), or foam to extinguish.
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
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SAFETY DATA SHEET

SDS687

FRAM® Coolant Filter BTE
FPR 11083

Sodium Nitrite	7632-00-0	30-60%
2-Mercaptobenzothiazole	149-30-4	5-15%
Disodium Trioxosilicate	6834-92-0	5-15%
Sodium metaborate, anhydrous	7775-19-1	5-15%
Sodium Nitrate	7631-99-4	5-10%
Disodium tetraborate, anhydrous	1330-43-4	1-5%

Section 4. FIRST AID MEASURES

Eye: None expected with normal use. If contact occurs with filter pellets, immediately flush eyes with large quantities of water for at least 20 minutes, holding the eyelids apart. Get immediate medical attention.

Skin: None expected with normal use. If contact with the filter pellets occurs, remove contaminated clothing. Immediately wash skin thoroughly with soap and water for at least 15 minutes. Get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes)

Ingestion: None expected with normal use. If filter pellets or dust is swallowed, 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: None expected with normal use. If dust from the filter pellets is inhaled, 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.

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. May be absorbed through the skin in harmful amounts. Inhalation of dust 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 eye or skin contact with pellets or dust. Ingestion of dust or pellets will require immediate medical attention, or for inhalation of dust.

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 dry chemicals, CO₂, water spray (fog), or foam.

Specific Hazards Arising From the Chemical: Product contains a strong oxidizer which enhances combustion. None expected from metal filters. Thermal decomposition of pellets may release carbon, nitrogen and metal oxides.



SAFETY DATA SHEET

SDS687

FRAM® Coolant Filter BTE
FPR 11083

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.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: If filters are damaged and pellets are released, 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 filters and place into appropriate container for disposal. Pick up pellets and place into container. Vacuum up remaining dust. Do not use combustible absorbents or towels. If spill occurs outdoors, cover the spill to prevent wind from spreading dust to the surrounding area. Report releases as required by local, state and federal authorities.

Section 7. HANDLING AND STORAGE

Precautions for Safe Handling: Wash thoroughly with soap and water after handling. Protect filters against physical damage.

If filters are damaged and pellets are released, avoid contact with the eyes, skin and clothing. Avoid breathing dusts. Wear protective clothing and equipment. Wash thoroughly with soap and water after handling. Keep pellets or dust away from all flammable or combustible materials such as solvents, oil, paper, cloth rags, etc.

Conditions for Safe Storage, Including Any Incompatibilities: Store filters in a dry, well ventilated area away from excessive heat, sources of ignition and combustible materials.

NFPA CLASSIFICATION: None

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Chemical	Exposure Limit
Sodium Nitrite	None Established
2-Mercaptobenzothiazole	5 mg/m ³ AIHA WEELs (Skin)
Disodium Trioxosilicate	None Established
Sodium metaborate, anhydrous	None Established
Sodium Nitrate	None Established
Disodium tetraborate, anhydrous	2 mg/m ³ TWA ACGIH TLV (Inhalable) 6 mg/m ³ STEL ACGIH TLV (Inhalable)

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



SAFETY DATA SHEET

SDS687

FRAM® Coolant Filter BTE
FPR 11083

Personal Protective Equipment

Respiratory Protection: None needed for normal use. In situations where contact with the pellets is likely and the 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. For firefighting, use self-contained breathing apparatus.

Skin Protection: None needed for normal use. In situations where contact with the pellets is likely, wear impervious gloves such as neoprene.

Eye Protection: None needed for normal use. In situations where contact with the pellets is likely, chemical safety goggles are recommended.

Other Protective Equipment / Clothing: None needed for normal use. In situations where contact with the pellets is likely, 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

The following physical characteristics are for the pellets only.

Appearance: Coated yellow pellets.	Odor: None
Odor Threshold: Not applicable	pH: 10.5 Conc. in a 1% solution
Melting/Freezing Point: Not applicable	Boiling Point/Range: Not applicable
Flashpoint: >200°F (>93.3°C) CC	Evaporation Rate: <1 (ether (anhydrous) = 1)
Flammability (Solid, Gas): Not applicable	Flammable Limits: LEL: Not applicable UEL: Not applicable
Vapor Pressure: <100 mmHg	Vapor Density (Air = 1): <1.0
Relative Density: 0.88	Solubility In Water: Partially
Partition Coefficient (n-octanol/water): Not determined	Autoignition Temperature: Not available
Decomposition Temperature: Not determined	Viscosity: Not applicable

Section 10. STABILITY AND REACTIVITY

Reactivity: Pellets may intensify fire or the potential for fire 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: The pellets are incompatible with strong acids, reducing agents, metals and moisture. Pellets may intensify fire or the potential for fire in contact with organic materials.



SAFETY DATA SHEET

SDS687

FRAM® Coolant Filter BTE
FPR 11083

Hazardous Decomposition Products: Thermal decomposition of pellets may release carbon, nitrogen and metal oxides.

Section 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Acute Hazards:

Ingestion: None expected under normal use conditions. Ingestion of pellets 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: None expected under normal use conditions. Inhalation of pellet dust may cause severe 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: None expected under normal use conditions. Contact with pellets may cause eye burns or damage; and severe irritation with redness, tearing and pain.

Skin Contact: None expected under normal use conditions. Contact with pellets may cause burns and severe irritation with redness, itching and pain. Sodium nitrite and disodium tetraborate may be absorbed through the skin causing effects similar to those described under inhalation and ingestion.

Chronic Effects: None expected under normal use conditions. Prolonged or repeated exposure to pellets may cause mild gastroenteritis, dermatitis, eczema, headache, mental impairment, loss of hair, bronchitis, laryngitis, conjunctivitis, kidney and liver damage and anemia. Disodium tetraborate, and sodium nitrate have been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals. Sodium tetraborate has tested positive for mutagenicity in some test systems.

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

Acute Toxicity Values:

Calculated ATE for Product:	ATE Oral: 288 mg/kg ATE Skin: >2000 mg/kg ATE Inhalation: > 5 mg/L/4hr.
Sodium Nitrite:	Oral Rat LD50 - 180 mg/kg Inhalation Rat LC50 - 5.5 mg/m ³ /4hr
2-Mercaptobenzothiazole:	Oral Rat LD50 - 3800 mg/kg Skin Rabbit LD50 - >7940 mg/kg Inhalation Rat LC50 - >1270 mg/L/4hr
Disodium Trioxosilicate:	Oral Rat LD50 - 1153 mg/kg Skin Rat LD50 > 5000 mg/kg Inhalation Rat LC50 - >2.06 mg/L/4hr



SAFETY DATA SHEET

SDS687

FRAM® Coolant Filter BTE
FPR 11083

Sodium metaborate, anhydrous: Oral Rat LD50 - >2600 mg/kg
Skin Rabbit LD50 - >2000 mg/kg
Inhalation Rat LC50 - >2.04 mg/L/4hr

Sodium nitrate: Oral Rat LD50 - 3430 mg/kg
Skin Rabbit LD50 - >5000 mg/kg

Disodium tetraborate: Oral Rat LD50 - 2660 mg/kg
Skin Rabbit LD50 - >1055 mg/kg
Inhalation Rat LC50 - >2 mg/m³/4hr

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.

2-Mercaptobenzothiazole: LC50 Oncorhynchus my kiss (Rainbow trout) 0.73 mg/L/96 hr.
LC50 Daphnia magna (Water flea) >0.71 mg/L /48 hr.

Disodium Trioxosilicate: LC50: Brachydanio rerio 210 mg/L/96 hr.

Sodium metaborate, anhydrous: LC50 Oncorhynchus kisutch (Chinook salmon) 447 mg/L/96 hr
EC50: Daphnia Magna: 133 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.

Disodium tetraborate: LC50 Gambusia affinis (Western mosquitofish) 104 mg/L/96 hr.
LC50 Daphnia magna (Water flea) 141 mg /L/48 hr.

Persistence and Degradability:

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

2-Mercaptobenzothiazole: Not readily biodegradable.

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

Bioaccumulative Potential:

2-Mercaptobenzothiazole: Is not Bioaccumulative.

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

Mobility in Soil:

2-Mercaptobenzothiazole: Expected to have medium to low mobility in soil



SAFETY DATA SHEET

SDS687

FRAM® Coolant Filter BTE
FPR 11083

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): Shipper Max weight = 30kg
UN2923, Corrosive Solids, Toxic, n.o.s. (Contains: Disodium Trioxosilicate, Sodium Nitrite), 8(6.1),
PG III, Limited Quantity
Note: Until: 12/31/2020 Consumer commodity, ORM-D is also acceptable.

NOTE: Packages with more than 166 lbs of pellets are subject to RQ requirements.

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR171.8.

IMDG CODE SHIPPING CLASSIFICATION: Shipper Max weight = 30kg
UN2923, Corrosive Solids, Toxic, n.o.s. (Contains: Disodium Trioxosilicate, Sodium Nitrite),
8(6.1), PG III Limited Quantity, Marine Pollutant

CANADIAN TDG CLASSIFICATION (For Ground Shipments Only): Limited Quantity

Section 15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 166 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): Pellets: 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	30-60%
2-Mercaptobenzothiazole	149-30-4	5-15%
Nitrate Compounds (Sodium Nitrate)	7631-99-4	5-10%

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

CANADA:



SAFETY DATA SHEET

SDS687

**FRAM® Coolant Filter BTE
FPR 11083**

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

Canadian WHMIS Classification: Manufactured article

Section 16. OTHER INFORMATION

Ratings for filter contents:

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

Revision Summary: Changes made to Section 14

SDS Date of Preparation / Revision: September 11, 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 any 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.