



SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

SDS ID: SDS518

Product Name: MACK® SCA Coolant Additive for the Spin-on Coolant Filter

Product Code: SP8870MK1SV (MACK# 104SF1), FK8834MK2SV (MACK# 57GC2186A/25501058), FK8865MK2SV (MACK#57GC2188A), FK9068MKSV (MACK# 215SB299 &/or # 85136704), FK9522MK2SV (MACK# 57GC2233), FK9524MK1SV (MACK# 57GC2235), FK9822MK1SV (MACK# 57GC2246), FK9939MK1SV (MACK# 215SB332)

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: 04/8/16

Product Use: Cooling system additive for trucks

Section 2. HAZARDS IDENTIFICATION

GHS/HAZCOM 2012 Classification:

This product is a manufactured article (truck coolant filter) containing a powder. 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 powder may cause adverse effects and are classified as follows:

Health	Physical	Environmental
Acute Toxicity Category 3 (Oral) Skin Corrosion Category 1 Skin Sensitizer Category 1 Eye Damage Category 1 Toxic to Reproduction Category 1B	Oxidizing Solid Category 3	Hazardous to the Aquatic Environment Acute Toxicity Category 1 Hazardous to the Aquatic Environment Chronic Toxicity Category 2

Label Elements





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DANGER!

H272 May intensify fire; oxidizer
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction.
H360 May damage fertility or the unborn child.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat. .
P220 Keep away from clothing and other combustible materials.
P260 Do not breathe dusts.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
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 soap and water.
P363 Wash contaminated clothing before reuse.
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.
P308 + P313 IF exposed or concerned: Get medical attention.
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

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



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Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Sodium Nitrite	7632-00-0	30-60%
Mercaptobenzothiazole	149-30-4	10-30%
Sodium Metasilicate	6834-92-0	10-30%
Sodium Nitrate	7631-99-4	5-10%
Disodium Tetraborate, Anhydrous	1330-43-4	5-10%

The exact concentrations are a trade secret.

Section 4. FIRST AID MEASURES

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

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

Ingestion: None expected with normal use. If filter powder 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 is inhaled, immediately remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

Most Important Symptoms: Corrosive. May cause eye and skin burns. Inhalation of dust may cause respiratory irritation, coughing, nose bleeds, sore throat, shortness of breath and tightness in the chest. Toxic if swallowed. May cause nitrite poisoning. May cause reproductive effects based on animal data.

Indication of Immediate Medical Attention and Special Treatment, If Needed: Contact with filter powder will require immediate 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.



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Section 5. FIRE FIGHTING MEASURES

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

Specific Hazards Arising From the Chemical: Product contains a strong oxidizer which enhances combustion. Powder that comes in contact with combustibles may cause ignition. No specific hazards are expected from undamaged metal filters. Thermal decomposition may release carbon monoxide, carbon dioxide and corrosive vapors. Powder may be sensitive to mechanical impact.

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 powder is 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. Collect dust and place into appropriate container for disposal. 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 powder is released, prevent contact with the eyes, skin and clothing. Avoid breathing dusts. Wear protective clothing and equipment. Wash thoroughly with soap and water after handling. Keep powder 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



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Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Sodium Nitrite	None Established
Mercaptobenzothiazole	5 mg/m ³ TWA skin AIHA WEEL
Sodium Metasilicate	None Established
Sodium Nitrate	None Established
Disodium Tetraborate, Anhydrous (as borates)	2 mg/m ³ TWA ACGIH TLV (inhalable) 6 mg/m ³ STEL ACGIH TLV (inhalable)

Appropriate Engineering Controls: Use with general or adequate local exhaust ventilation to maintain exposures below the occupational exposure limits.

Personal Protective Equipment

Respiratory Protection: None needed for normal use. In situations where contact with the powder is possible 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.

Skin Protection: None needed for normal use. In situations where contact with the filter powder is possible, wear impervious gloves.

Eye Protection: None needed for normal use. In situations where contact with the filter powder is possible, wear chemical safety goggles and faceshield.

Other Protective Equipment / Clothing: None needed for normal use. In situations where contact with the filter powder is possible, 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 filter powder only.

Appearance: Yellow to white powder	Odor: None
Odor Threshold: Not applicable	pH: 10.4 Conc. in a 1% solution
Melting/Freezing Point: Not applicable	Boiling Point/Range: Not applicable
Flashpoint: Not applicable	Evaporation Rate: Not applicable
Flammability (Solid, Gas): Not flammable	Flammable Limits: LEL: Not applicable UEL: Not applicable
Vapor Pressure: Not applicable	Vapor Density (Air = 1): Not applicable
Relative Density: Not available	Solubility In Water: ~10%
Partition Coefficient (n-octanol/water): Not determined	Autoignition Temperature: Not applicable
Decomposition Temperature: Not determined	Viscosity: Not applicable



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Section 10. STABILITY AND REACTIVITY

Reactivity: Powder may ignite 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: Avoid contact with acids and bases.

Hazardous Decomposition Products: Thermal decomposition may release carbon monoxide, carbon dioxide and corrosive vapors.

Section 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Acute Hazards:

Ingestion: Toxic if swallowed. 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 dust 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 severe irritation with redness, tearing and pain. Corneal damage is possible.

Skin: Contact may cause severe irritation with redness, itching and pain. Prolonged contact may cause burns. Sodium nitrite may be absorbed through the skin causing effects similar to those described under inhalation and ingestion. Metcaptobenzothiazole has been found to cause contact dermatitis.

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.

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

Mutagenicity: None of the components are germ cell mutagens.



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Reproductive Toxicity: Sodium tetraborate, sodium nitrate and mercaptobenzothiazole have been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals.

Acute Toxicity Values:

Calculated ATE for Product: Oral: 183.6 mg/kg, Dermal: >5000 mg/kg, Inhalation: > 5 mg/L/4 hr.

Sodium Nitrite: LD50: Oral Rat 180 mg/kg
LC50: Inhalation Rat 5.5 mg/L/4 hr.

Mercaptobenzothiazole: LD50: Oral Rat 3800 mg/kg
LD50: Skin Rabbit >7940 mg/kg
LC50: Inhalation Rat > 1.270 mg/L/4 hr

Sodium Metasilicate: LD50: Oral Rat 1152 mg/kg
LD50: Skin Rabbit > 5000 mg/kg
LC50: Inhalation Rat > 2.06 mg/L/4 hr

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

Disodium Tetraborate, Anhydrous: LD50: Oral Rat 3550 mg/kg
LD50: Skin Rabbit > 2000 mg/kg
LC50: Inhalation Rat > 2.03 mg/L/4 hr

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.

Mercaptobenzothiazole: LC50 Oncorhynchus my kiss 0.73 mg/L/96 hr.
LC50 Daphnia magna >7.1 mg/L /48 hr.

Sodium Metasilicate : LC50 Oncorhynchus my kiss 447 mg/L/96 hr.
LC50 Daphnia magna 133 mg/L /48 hr.

Sodium Nitrate: LC50 Oncorhynchus my kiss 1658 mg/L/96 hr.
LC50 Daphnia magna 3581 mg/L /48 hr.

Disodium Tetraborate, Anhydrous: LC50 Limanda 74 mg/L/96 hr.
LC50 Ceriodaphnia dubia 91 mg /L/48 hr.

Persistence and Degradability: Biodegradation is not applicable to inorganic substances.

Bioaccumulative Potential: No data available



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Mobility in Soil: No data available

Other Adverse Effects: This product is consider very toxic to aquatic life and toxic to aquatic life with long lasting effects.

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)

PROPER SHIPPING NAME: Corrosive solid, oxidizing n.o.s.

TECHNICAL NAME: (Sodium Nitrite, Sodium Metasilicate, Sodium Nitrate)

UN NUMBER: UN3084

HAZARD CLASS: 8 (5.1)

PACKING GROUP: PG II

Note: If >226 pounds of this product in a single container, RQ Requirements apply.

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

IMDG CODE SHIPPING CLASSIFICATION: Containers Not Over 1 kg, package not over 30 kg

PROPER SHIPPING NAME: Corrosive solid, oxidizing n.o.s.

TECHNICAL NAME: (Sodium Nitrite, Sodium Metasilicate, Sodium Nitrate)

UN NUMBER: UN3084

HAZARD CLASS: 8 (5.1)

PACKING GROUP: PG II

LABELS REQUIRED: Limited Quantity Mark

PLACARDS REQUIRED: Limited Quantities on Cargo Transport Container, Marine Pollutant

CANADIAN TDG CLASSIFICATION (For Ground Shipments Only)

PROPER SHIPPING NAME: Corrosive solid, oxidizing n.o.s.

TECHNICAL NAME: Sodium Nitrite, Sodium Metasilicate, Sodium Nitrate)

UN NUMBER: UN3084

HAZARD CLASS: 8 (5.1)

PACKING GROUP: PG II

Section 15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 226 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, Fire Hazard



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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%
Mercaptobenzothiazole	149-30-4	10-30%
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.

Canadian Environmental Protection Act: All of the ingredients are listed or exempt from the Canadian Domestic Substances List.

Australia: All of the ingredients of this product are listed on or exempt from the Australian Inventory of Chemical Substances.

China: All of the ingredients of this product are listed on or exempt from the Inventory of Existing Chemical Substance in China (IECSC).

European Inventory Of Existing Commercial Chemical Substances (EINECS): All of the ingredients are listed on or exempt from the EINECS inventory.

Korea: All of the ingredients of this product are listed on or exempt from the Korean Existing Chemical List (KECL).

Japan: All of the ingredients of this product are listed on or exempt from the Japanese Existing and New Chemical Substances (METI) List.

New Zealand: All of the ingredients of this product are listed on or exempt from the New Zealand Inventory of Chemicals.

Philippines: All of the ingredients of this product are listed on or exempt from the Philippine Inventory of Chemical and Chemical Substance (PICCS).

Taiwan: All of the ingredients of this product are listed on or exempt from the Taiwan New and Existing Chemical Inventory.

Section 16. OTHER INFORMATION

NFPA Rating: Health = 3 Fire = 0 Instability = 1 Special: OX
HMIS Rating: Health = 3 Fire = 0 Physical Hazards = 1

Revision Summary: Section 2 Classification, Label Elements



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SDS Date of Preparation/Revision: April 8, 2016

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 ant 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.