MATERIAL SAFETY DATA SHEET



Technology and Products That Offer Solutions

FRICTION BLOCK™

Blend / Non-Concentrated Version

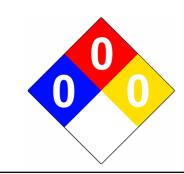
"Information Concerning this Material Safety Data Sheet"

A Material Safety Data Sheet is for the benefit of the people who work with hazardous materials. Great Eastern Technologies, L.L.C., (GET) uses the standard 16 Section format developed by the Chemical Manufacturers Association (CMA) and published in 1993 as ANSI Z400, and endorsed by OSHA. A description of each Section's purpose is listed below the each Section title to assist the user with understanding this MSDS

GET urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

While the information and recommendations set forth herein are believed to be accurate, as of the date hereon, Great Eastern Technologies, L.L.C., makes no warranty with respect thereto and disclaims all liability from reliance thereon. The information contained herein represents our current data and best opinion as to the proper use and handling of this product under normal conditions. Any use of this product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any process is the responsibility of the user.

The MSDS should not be construed as the sum total of all protective measures that may be taken. It is the responsibility of the employer to evaluate the information and to determine the extent of the hazard and what personal protective measures should be taken. The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.



Fire Hazard - Top Health Hazard - Left

0 Normal 0 Will Not Burn 1 Slightly Hazardous 1 Above 200E F 2 Hazardous 2 Below 200E F 3 Below 100E F 3 Extreme Danger 4 Deadly 4 Below 73E F

Instability- Right

Other - Bottom 0 Stable OXY Oxidizer 1 Unstable if Heated ACID Acid 2 Violent Chemical Change Al K Alkali 3 Shock/Heat May Detonate COR Corrosive

4 May Detonate

SECTION 01

CHEMICAL PRODUCT AND COMPANY

This section is intended to give the names of the material as it relates to the material's label and shipping document. It will include the mailing address and relevant phone numbers of the material manufacture.

Product Identification

: Friction Block® (Blend, Non-Concentrated Version) **Product Trade Name**

Mixture - Not Applicable **Chemical Name** CAS# Mixture - Not Applicable **Chemical Family** : Chemical Dispersing Agent

Product Synonyms : None

Product Use : Concrete Chemical Admixture

DOT Hazard Class : Not Regulated

Company Identification

Great Eastern Technologies, L.L.C. (609) 581-1587 Factory Phone Number 4407 S. Broad Street (609) 581-0735 Fax Number

Yardville, New Jersey 08620

Emergency Number

Great Eastern Technologies, L.L.C. work hours are generally 8:00 a.m. to 5:00 p.m. Monday through Friday. The Emergency Number is the Factory Phone Number (609) 581-1587.

The Emergency Number for office hours and non-office hours is (800) 424-9300 (CHEMTREC)

MSDS Number : GSM FM-575-09 **Cancels MSDS Number** : GSM FM-575-08

Publication Date : January, 2009

SECTION 02

HAZARDOUS INGREDIENTS

This section contains information to identify hazardous components of the material. If non-hazardous ingredients are listed, they will be listed separately. Chemical Abstract Service (CAS) numbers will be given if available, as well as OSHA Permissible Exposure Limits and American Conference of Government Industrial Hygienist (ACGIH) TLVs. If the identity of any ingredient is claimed to be a trade secrete, it will be so indicated in this section.

(See Section 11 for Complete Chemical Names)

Ingredient by Weight PEL STEL TLV STEL IDLH Other

There are no hazardous ingredients that represent more than 0.10% of the total product by weight.

SECTION 03 EMERGENCY HAZARDS IDENTIFICATION

This section describes potential health effects hazards of the material that may be of concern for emergency response personnel.

Emergency Overview: Friction Block (Non-Concentrated - Blended Version) is a clear to slight amber, soapy liquid that has little to no odor. It is a non-hazardous material. Contact with the eyes may cause irritation.

Potential Health Effects

Skin: Prolonged skin contact may cause skin irritation

Eyes : Contact with eyes may cause slight burning and irritation.

Inhalation: Not typically used in an environment of vapor or mist. No data available.

Ingestion: Small incidental amount tat may arise in industrial environments should not pose any physiological hazard.

Injection : No data Available

ACUTE: The primary hazard associated with this product is contact with the eyes may cause irritation.

CHRONIC: No known chronic effects

TARGET ORGANS : ACUTE: None Known CHRONIC: None Known

CARCINOGENICITY: This product contains no known carcinogenic materials. California Proposition 65 lists this material as

None Detectable. (see Section 11 Toxicological Information for more details)

SECTION 04

FIRST AID MEASURES

This section includes emergency and first aid procedures and is written in layman's language in order to be easily understood. Procedures for each potential route of exposure will be included.

Contaminated individuals must be taken for medical attention if any adverse reaction occurs. Rescuers should be taken for medical attention, if necessary. Take a copy of Product Label and MSDS to a health professional with the contaminated individual.

Skin : If this product contaminates the skin, begin decontamination with running water. Remove exposed or contaminated clothing, wash contaminated clothing before reuse. Victim must seek immediate medical attention if any adverse effect occurs.

Eyes : If this product liquid or vapors enter the eyes, open contaminated individual's eyes under gently running water. Use sufficient force to open eyelids. Have contaminated individual "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate attention.

Inhalation: If vapors, mist, or spray of this product are inhaled, remove contaminated individual to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover contamination to avoid exposure to rescuers.

Ingestion: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT

INFORMATION. Give large amounts of water followed by milk. Do not inducing vomiting. Do not give diluents (milk

or water) to someone who is unconscious, having convulsion, or unable to swallow.

Medical Conditions Aggravated by Exposure: No Data Available

Notes to Physicians: Treat symptomatically.

SECTION 05

FIRE FIGHT MEASURES

This section gives information to describe fire and exposure properties of the material, extinguishing media to be used, and fire-fighting instructions. It applies to anyone who may be in the area of the fire.

Flash Point : Not Flammable
Flammable Limits : Not Flammable
Explosion Sensitivity to Mechanical Impact
Explosion Sensitivity to Static Discharge : Not Sensitive
Auto Ignition Temperature : Not Available

Extinguishing Media: Use method suitable for the situation

: Water Spray Yes : Carbon Dioxide Yes : Halon Yes : Dry Chemical Yes

: Foam Yes : Other Any "ABC: Class

Special Fire Fighting Procedures : No special Fire Fighting Requirements

Fire and Explosion Hazards : When involved in a fire, this material may decompose and produce very small amounts of

CO, CO₂ and Oxides of Nitrogen.

SECTION 06

ACCIDENTAL RELEASE MEASURES

Spill and Leak Response. This section will give information needed to prevent or minimize adverse effects on employees, neighbors, property, and the environment, including waterways. It is intended for emergency response personnel.

Isolate hazard area and deny entry to unnecessary or unprotected personnel. Contain spilled liquid with sand or earth. Place in a disposal container. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 07

HANDLING AND STORAGE

This section provides guidelines for minimizing any potential hazards from storing the material. It should include information to minimize handling when appropriate, and conditions such as temperature, inert atmosphere, and conditions to avoid.

Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Use normal personal hygiene and housekeeping. Store in room temperature dry area from other incompatible materials such as strong oxidizing agents.

SECTION 08 EXPOSURE CONTROLS, PERSONAL PROTECTION

This section will discuss the degree of engineering control that may be needed when handling the material, and the personal protective equipment that should be used if there is a potential for exposure above the regulatory or suggested limits. Exposure guidelines, such as OSHA PELs and ACGIH TLVs should be included in this section.

Respiratory Protection: Respirators are not required under normal use.

Ventilation Requirements : Ventilate as necessary to eliminate from the work area.

Skin Protection : Use rubber or neoprene gloves, chemical goggles and clothing sufficient to protect skin from liquid.

Work, Hygienic Practices : As required to protect skin and eyes from liquid, safety showers and/or eye wash should be

available. Do leave food or smoke in work area. Wash thoroughly and remove or clean any

contaminated clothing.

Exposure Limits : None Established.

Section 09 Physical and Chemical Properties

These properties are intended to assist users to determine proper handling and storage. Additional properties other than the standard data given below may be included if they are useful.

Specific Gravity : 1.00 Odor : None to Mild

pH Level approximate : 8.2 Appearance : Clear to Faint Amber

Viscosity (cps) : < 20 cps Percent Volatile : 0%

Flash Point @ EF : Not Applicable
Freezing Point @ EF : Not Applicable
Explosion Hazard : Not Applicable

Ignition Point @ EF : Not Applicable
Boiling Point @ EF : Not Applicable
Boiling Point @ EF : Not Applicable
Melting Point @ EF : Not Applicable

Vapor Pressure (MM Hg): Not ApplicableVapor Density: Not ApplicableEvaporation Rate: Not ApplicableSolubility in Water: Compete

SECTION 10 STABILITY AND REACTION

This section describes conditions that may result in a potentially hazardous reaction, such as evolution of hazardous gases, production of heat, or other hazardous conditions.

Chemical Stability : Stable under normal temperatures.

Keep Away From : Strong Oxidizers

Hazardous Polymerization : Will not occur under normal conditions.

Hazardous Decomposition Products : Possible very small amounts of CO, CO2 and Oxides of Nitrogen

SECTION 11

TOXICOLOGICAL INFORMATION

This section includes known information resulting from animal testing or human experience on the toxicity of the material. Also included would be information on its potential for causing cancer. Data will include acute, sub-chronic, and chronic exposures, if available.

Ingredient (See Section 2 for Exposure Limits)

(Chemical Name, CAS #, Common Name) Toxicity Data

Friction Block (Blend - Non-Concentrated Version)

Standard Draize Test (Skin-Rabbit, adult) No Data Available

Standard Draize Test (Eye-Rabbit, adult) No Data Available

LD50 (Oral-Rat) No Data Available

LD50 (Oral-Rat) No Data Available

Suspected Cancer Agent: The components of this product are not considered to be, nor suspected to be, cancer causing agents.

Irritancy of Product : No Data Available Sensitization of Product : No Data Available

Reproductive Toxicity : This product is not known to cause mutagenic, embryotoxic, teratogenic effects in humans. This product is not

reported to cause reproductive toxicity effects in humans. (see definitions in Section 16 Other)

ACGIH Exposure Indices : No Data Available

Notation of Definitions:

A <u>mutagen</u> is a chemical which causes permanent changes to genetic material (*DNA*) such that the changes will propagate through generational lines. An <u>embryotoxin</u> is a chemical change which causes damage to a developing "embryo" (i.e within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A <u>teratogen</u> is a chemical which causes damage to a developing "fetus", but the damage does not propagate across generational lines. A <u>reproductive toxin</u> is any substance which interferes in any way with the reproductive process.

SECTION 12

ECOLOGICAL INFORMATION

This section will list known impacts to the environment that may occur if the material is released to the environment, or in evaluating waste treatment practices.

All work practices must be aimed at eliminating environmental contamination.

Environmental Stability: The components of this product are relatively stable under ambient, environmental conditions.

Effects of Material on Plants or Animals : No Data Available

Effects of Chemical on Aquatic Life : No Data Available

SECTION 13

DISPOSAL CONSIDERATIONS

This section provides guidance to environmental and other technical, or in evaluating waste treatment practices.

Consult all Federal, State, Provincial and Local regulations, or a qualified waste disposal firm when characterizing waste for disposal. Dispose of waste in accordance with all applicable regulations.

For small spills, flush to industrial sewer

For large spills soak up with sand or sweeping compounds.

U.S. EPA (40 CFR 261) waste definition of this product: No Data Available

RCRA Waste # : None

SECTION 14 TRANSPORTATION INFORMATION

This section provides information concerning classification for shipping the material. It should include U.S. Department of Transportation (DOT) classifications, or an indication that it is not regulated.

Department of Transportation Shipping Name : Not Regulated Hazard Class : Not Applicable Identification # : Not Applicable : Not Applicable Label (s) Required : Not Applicable

Surface Freight Classification : Concrete or Masonry Concrete Chemical Additive

SECTION 15 REGULATORY INFORMATION

This section is contains information regarding the regulatory status of the material. It should include OSHA, and EPA regulations if available.

OSHA Status : None
TSCA Status : None
CERCLA Reportable Requirements : None
SARA Title III Information : None

California Proposition 65 : No detectable carcinogenic materials

SECTION 16

OTHER INFORMATION

This section is intended for other material the preparer feels is pertinent, and that should be not be included in the other fifteen sections.

Definitions and Terms

A large number of abbreviations and acronyms appear on a MSDS. Some of these commonly used included the following:

CAS #: This is the Chemical Abstract Service Number which uniquely identifies each constituent.

Exposure Limits in Air

ACGIH American Conference of Government Industrial Hygienist, a professional association which establishes exposure limits.

TLV Threshold Limit Value, an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered; including the 8 hour Time Weighted Average (TWA), the 15 minute Short Term Exposure Limit, and the instantaneous Ceiling Level (C). Skin absorption limits must also be considered.

OSHA U.S. Occupational Safety and Health Administration

PEL Permissible Exposure Limit, This exposure limit means exactly the same as a TLV, except it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminates Rule (Federal Register: 58: 35338-35351 and 58:40191). Both the current PELs and the vacated PELs are indicated. The phrase, "vacated 1989 PEL," is placed next to the PEL which was vacated by Court Order.

IDLH Immediate Dangerous to Life and Health, This level represents a concentration from which one can escape within 30 minutes without suffering escape-preventing or permanent injury.

NIOSH National Institute of Occupational Safety and Health, which is the research arm of OSHA.

REL Recommended Exposure Limits, Issued by NIOSH.

Hazard Ratings

HMIS Hazardous Materials Identification System Health Hazard

- Minimal acute or chronic exposure hazard
- 1 Slight acute or significant chronic exposure hazard.
- 2 Moderate acute or significant chronic exposure hazard.
- 3 Severe acute or significant chronic exposure hazard. One time exposure can result in permanent injury and may be fatal.
- 4 Extreme acute or significant chronic exposure hazard. One time exposure can be fatal.

Flammability Hazard

- 0 Minimal Hazards
- 1 Materials that require substantial pre-heating before burning.
- 2 Combustible liquids or solids; liquids with a flash point of 38-39C (100-200F)
- 3 Class IB & IC flammable liquids with flash points below 38C (100F)
- 4 Class IA flammable liquids with a flash point below 23C (73F) and boiling points below 38C (100F).

Reactive Hazard

- Normally Stable
- Material that can become unstable at elevated temperatures or which can react slightly with water.
- 2 Materials that are unstable but do not detonate or which can react violently with water.
- 3 Materials which can detonate when initiated or which can react explosively with water.
- 4 Materials which can detonate at normal temperatures or pressures.

NFPA National Fire Protection Association Health Hazard

- Materials that on exposure under fire conditions would offer no hazard beyond t hat of ordinary combustible materials.
- Materials that on exposure under fire conditions could cause skin irritation or minor residual injury.
- 2 Materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury.
- 3 Materials that on short exposure could cause serious temporary or residual injury.
- 4 Materials that on very short exposure causes death or major injury. Flammability Hazard and Reactivity Hazard are the same as HMIS

Flammability Limits in Air

Much of the information related to fire and explosion is derived from the NFPA as follows:

Autoignition Temp. The minimum temperature requited to initiate combustion in air with no other source of ignition.

Flash Point Minimum Temperature at which a liquid gives off vapors to form an ignitable mixture with air.

LEL The lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

UEL The highest percent of vapor in air, by volume, that will

explode or ignite in the presence of an ignition source.

Toxicological Information

Possible health hazards as derived from human data, animal studies, or from the results of studies when similar compounds are presented. Definitions of some terms used in this section are:

LD50 Lethal Dose which kills 50% of the exposed animals
Lethal Concentration which kills 50% of the exposed animals
Concentration expressed in parts of material per million parts
of air or water.

mg/m³ Concentration express in weight of substance per volume of air.

mg/kg Quantity of material, by weight, administered to a test subject based on their body weight per kg.

IARC International Agency for Research of Cancer
NTP National Toxicology Program (Cancer Research)
RTECS Registry of Toxic Effects of Chemical Substances (Cancer

Research)
Notation The IARC and NTP rate chemicals on a scale of decreasing

potential to cause human cancer with ranking from 1 to 4. Sub-Rankings (2A, 2B, etc.) Are also used. Other measures of toxicity include TDLo the lowest dose to cause a symptom and TCLo the lowest concentration to cause a symptom.

BEI Biologoical Exposure Indices represents the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV.

EC Ecological Information, EC is the effect concentration in water.

Regulatory Information

This section explains various laws and regulations on the material.

EPA U.S. Environmental Protection Agency **DOT** U.S. Department of Transportation.

SARA U.S. Superfund Amendments and Reauthorization Act

TSCA U.S. Toxic Substance Control Agency

CERCLA Comprehensive Environmental Response, Compensation

and Liability Act