



Safety Data Sheet

1. Identification

Product Identifier Flexible Graphite Sheet with 316 Stainless Steel Foil Insert
Grade Names TF-LHRE
SDS Number A003
Recommended Use Gasket material
Recommended Restrictions Workers and your customers or users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of the material should be provided as required under applicable regulations.

Manufacturer Information

Manufacturer EGC Enterprises, Inc.
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2. Hazard(s) identification

Physical Hazards Not classified
Health Hazards Not classified
OSHA Defined Hazards Not classified
Label Elements
Hazard Symbol None
Signal Word None
Hazard Statement The substance does not meet the criteria for classification
Precautionary Statement
Prevention Observe good industrial hygiene practices
Response Wash hands after handling
Storage Store away from incompatible materials
Disposal Dispose of waste and residues in accordance with local authority requirements

Hazards Not Otherwise

Classified (HNOC) None known
Supplemental Information None

3. Composition/information on ingredients

Substances

Chemical Name	Common name	CAS Number	%
Graphite (Natural)		7782-42-5	94 – 98
316 Stainless Steel		65997-19-5	1.5 – 6
Impurity: Crystalline Silica (Quartz)		14808-60-7 (Quartz)	0 – 2

Composition Comments All concentrations are in percent by weight unless ingredient is a gas
 Gas concentrations are in percent by volume
 This product does not generate dust when used as intended

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Wash off with soap and water.
 Get medical attention if irritation develops and persists.
Eye contact Rinse with water. Get medical attention if irritation develops or persists.
Ingestion Rinse mouth. Get medical attention if irritation develops or persists.
Most Important Symptoms, Acute and Delayed Direct contact with eyes may cause temporary irritation
Indication of Immediate Medical Attention and Special Treatment Needed Treat symptomatically
General Information Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.



ENGINEERED SOLUTIONS

5. Fire-fighting measures

Suitable Extinguishing Media

Water fog, foam, dry chemical powder, carbon dioxide (CO₂)

Unsuitable Extinguishing Media

Do not use water jet as an extinguisher, as this will spread the fire

Specific Hazards Arising from the Chemical

During fire, gases hazardous to health may be formed

Special Protective Equipment and Precautions for Firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire

Equipment/Instructions

Move containers from fire area if you can do so without risk

Specific Methods

Use standard firefighting procedures and consider the hazards of other involved materials

General Fire Hazards

No unusual fire or explosion hazards noted

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

Keep unnecessary personnel away
For personal protection, see section 8 of the SDS

Methods and Materials for Containment and Cleaning Up

The products are immiscible with water and will spread on the water surface
Stop the flow of material, if this is without risk
Following product recovery, flush area with water
For waste disposal, see section 13 of the SDS
Avoid discharge into drains, water courses or onto the ground

Environmental Precautions

7. Handling and storage

Precautions for Safe Handling

Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure.

Conditions for Safe Storage, Including any Incompatibilities

Store in original tightly closed container. Store away from incompatible materials (See Section 10 of the SDS)

8. Exposure controls/personal protection

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)			
Components	Type	Value	Form
Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m ³	
U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)			
Components	Type	Value	Form
Graphite (Natural) (CAS 7782-42-5)	PEL	5 mg/m ³ 15 mg/m ³	Respirable fraction Total dust
U.S. OSHA Table Z-3 (29 CFR 1910.1000)			
Components	Type	Value	Form
Graphite (Natural) (CAS 7782-42-5)	TWA	15 mppfc	
Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.1 mg/m ³ 2.4 mppcf	Respirable Respirable
U.S. ACGIH Threshold Limit Values			
Components	Type	Value	Form
Graphite (Natural) (CAS 7782-42-5)	TWA	2 mg/m ³	Respirable fraction
Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction
U.S. NIOSH: Pocket Guide to Chemical Hazards			
Components	Type	Value	Form
Graphite (Natural) (CAS 7782-42-5)	TWA	2.5 mg/m ³	Respirable
Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust

Appropriate Engineering Controls

No biological exposure limits noted for the ingredients
Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection

Wear safety glasses with side shields or goggles

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves

Other

Wear suitable protective clothing

Respiratory Protection

Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit

Thermal Hazards

Wear appropriate thermal protective clothing, when necessary

General Hygiene

Considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical State

Graphite foil

Form

Solid

Color

Graphite foil

Black

Odor

Slight hydrocarbon

Odor Threshold

Not available

pH

Not applicable

Melting Point

1500 °C

Freezing Point

Not applicable

Initial Boiling Point and

Boiling Range

Not applicable

Flash Point

Not applicable

Evaporation Rate

Not Applicable

Flammability (solid, gas)

Not available

Upper/Lower Flammability or Explosive Limits

Flammability limit

Lower (%)

Not applicable

Upper (%)

Not applicable

Explosive Limit

Lower (%)

Not available

Upper (%)

Not available

Vapor Pressure

Not applicable

Vapor Density

Not applicable

Relative Density

1.3

Solubility

Water

Negligible

Partition Coefficient

(n-octanol/water)

Not applicable

Auto-Ignition Temperature

Not applicable

Decomposition Temperature

Not applicable

Viscosity

Not applicable

Other Information

Bulk Density

70 lb/ft³

Explosive Properties

Not explosive

Oxidizing Properties

Not oxidizing

Percent Volatile

Not applicable



10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport
Material is stable under normal conditions

Chemical Stability

Possibility of Hazardous Reactions No dangerous reaction known under conditions of normal use

Conditions to Avoid Contact with incompatible materials

Incompatible Materials Chromium Trioxide, Nitric Acid, Strong Sulfuric Acid

Hazardous Decomposition Products No hazardous decomposition products are known

11. Toxicological information

Information on Likely Routes of Exposure

Inhalation Prolonged inhalation may be harmful

Skin Contact No adverse effects due to skin contact are expected

Eye Contact Direct contact with eyes may cause temporary irritation

Ingestion Expected to be low ingestion hazard

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics

Direct contact with eyes may cause temporary irritation

Information on Toxicological Effects

Acute Toxicity		
Components	Species	Test Results
Graphite (Natural) (CAS 7782-42-5) Acute Oral LD50	Rat	10,000 mg/kg

Skin Corrosion/Irritation Prolonged skin contact may cause temporary irritation

Serious Eye Damage/Irritation Direct contact with eyes may cause temporary irritation

Respiratory or Skin Sensitization

Respiratory Not a respiratory sensitizer

Skin This product is not expected to cause skin sensitization

Germ Cell Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic

Carcinogenicity In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibers, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs – Overall Evaluation of Carcinogenicity

Impurity: Crystalline Silica (Quartz)(CAS 14808-60-7) 1 Carcinogenic to humans

NTP Report on Carcinogens

Impurity: Crystalline Silica (Quartz)(CAS 14808-60-7) Known to be human carcinogen

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Impurity: Crystalline Silica (Quartz)(CAS 14808-60-7) Cancer



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Reproductive Toxicity

Specific Target Organ Toxicity

Single Exposure

Repeated Exposure

Aspiration Hazard

Chronic Effects

This product is not expected to cause reproductive or developmental effects

Not classified

Not classified

Not an aspiration hazard

Prolonged inhalation may be harmful

Prolonged exposure may cause chronic effects

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data is available on the degradability of this substance

Bio-accumulative Potential

No data available

Mobility in Soil

No data available

Other Adverse Effects

No other adverse environmental effects are expected from this component

13. Disposal considerations

Disposal Instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site

Local Disposal Regulations

Dispose in accordance with all applicable regulations

Hazardous Waste Code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company

Waste from Residues and Unused Products

Dispose of in accordance with local regulations. Empty containers or lines may retain some product residues. This material and its container must be disposed of in a safe manner (See Disposal Instructions)

Contaminated Packaging

Since emptied containers may retain residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods

IATA

Not regulated as dangerous goods

IMDG

Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

U.S. Federal Regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpart D)

Not regulated

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

SARA 304 Emergency Release Notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Impurity: Crystalline Silica (Quartz)(CAS 14808-60-7)

Cancer

Lung effects

Immune system effects

Kidney effects

Superfund Amendments and Reauthorization Act of 1985 (SARA)

SARA 302 Extremely Hazardous Substance

Not listed

SARA 311/312 Hazardous Chemical

Yes

SARA 313 (TRI Reporting)

Not regulated

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated



Clean Air Act (CAA) Section 112(r) Accidental Release Preventions (40 CFR 68.130)

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

U.S. State Regulations

U.S. Massachusetts RTK – Substance List

Graphite (CAS 7782-42-5)

Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)

U.S. New Jersey Worker and Community Right-to-Know Act

Graphite (CAS 7782-42-5)

Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)

U.S. Pennsylvania Worker and Community Right-to-Know Law

Graphite (CAS 7782-42-5)

Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)

U.S. Rhode Island RTK

Graphite (CAS 7782-42-5)

Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)

California Proposition 65



WARNING: This product can expose you to Impurity: Crystalline Silica (Quartz), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

California Proposition 65 – CRT: Listed Date/Carcinogenic Substance

Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7) Listed: October 1, 1988

U.S. California: Candidate Chemicals List – Safer Consumer Products Regulations (Cal. Code Regs, Title 22, 69502.3, Subdivision (a))

Impurity: Crystalline Silica (Quartz) (CAS 14808-60-7)

16. Other information, including date of preparation or last revision

Issue Date	4/7/2020
Revision Date	4/27/2020
Revision	1
NFPA Rating	



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