TEAM® Industrial Services

SAFETY DATA SHEET

1. Product and Company Identification

Material name	**ES-1 BONDER**
Version #	00
Issue date	11-01-2012
Revision date	11-01-2012
Supersedes date	-
CAS #	Mixture
Product code	803-0036
Product use	Industrial Leak Sealant
Manufacturer information	
Manufacturer/Supplier	Team Industrial Services, Inc. 200 Hermann Drive, Alvin, Texas 77511
Emergency Contact	CHEMTREC - 24 HOURS USA: CHEMTREC: 800-424-9300 International: 703-527-3887 (Collect)

2. Hazards Identification

Physical state	Solid.
Appearance	Putty, gray color after cure, mild sulfide odor.
Emergency overview	In its manufactured and shipped state, this product is considered non-hazardous. Used as intended, this product is not expected to generate potentially hazardous quantities of dust or fumes.
OSHA regulatory status	This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Eyes	May cause eye irritation on direct contact.
Skin	Prolonged or repeated skin contact may cause irritation.
Inhalation	When cured: Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the respiratory tract. Prolonged breathing of high levels of crystalline silica can cause silicosis. Also, airborne crystalline silica is possibly carcinogenic to humans.
Ingestion	May cause discomfort if swallowed.
Target organs	No specific target organs noted.
Chronic effects	No other specific acute or chronic health impact noted.
Signs and symptoms	Irritant effects.
Potential environmental effects	The product is not expected to be hazardous to the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Magnesium silicate hydrate	14807-96-6	25-50
Quartz	14808-60-7	10-25
Sodium calcium magnesium silicate	65997-17-3	10-25

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact	Flush thoroughly with water. If irritation occurs, get medical assistance.
Skin contact	Wash area with soap and water. Get medical attention if irritation develops or persists.
Inhalation	No specific first aid measures noted.

Ingestion Rinse mouth and drink plenty of water. Do not induce vomiting. Get medical attention if any discomfort occurs.

Notes to physician Treat symptomatically.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties No unusual fire or explosion hazards noted.

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media No restrictions known.

Protection of firefighters

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Protective equipment and precautions for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials. Cool material exposed to heat with water spray and remove it if no risk is involved.

Hazardous combustion products Metal oxides.

6. Accidental Release Measures

Personal precautions Avoid prolonged and repeated contact. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

Methods for containment Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up Collect and dispose of spillage as indicated in section 13 of the MSDS.

Other information Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling Provide adequate ventilation. Avoid prolonged and repeated contact. Observe good industrial hygiene practices.

Storage Store in closed original container in a dry place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		20 mppcf	
		2.4 mppcf	Respirable.
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	2 mg/m3	Respirable particles.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable particles.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	2 mg/m3	Respirable.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	2 fibers/ml	
		2 mg/m3	Respirable particles.
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	3 mg/m3	Respirable dust.
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Magnesium silicate hydrate (CAS 14807-96-6)	TWA	2 fibers/cm3
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m3

Engineering controls Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Personal protective equipment

Eye / face protection Risk of contact: Wear approved safety glasses or goggles.

Skin protection Where skin contact is likely, wear chemical impervious gloves. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

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 & Chemical Properties

Appearance Putty, gray color after cure, mild sulfide odor.

Physical state Solid.

Form Putty.

Color Gray.

Odor Mild sulfide.

Odor threshold Not available.

pH Not available.

Vapor pressure Not available.

Vapor density Not available.

Boiling point Not available.

Melting point/Freezing point	Not available.
Solubility (water)	Insoluble.
Specific gravity	1 (Water = 1)
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	0 (Butyl acetate = 1)
Partition coefficient (n-octanol/water)	No data available.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	None known.
Incompatible materials	None known.
Hazardous decomposition products	None known.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Sensitization	Not a skin or respiratory sensitizer.
Acute effects	May cause discomfort if swallowed.
Local effects	May cause eye irritation on direct contact. Prolonged or repeated skin contact may cause irritation. Elevated temperatures or mechanical action may form vapors or mists which may be irritating to respiratory tract.
Chronic effects	No additional adverse health effects noted.
Carcinogenicity	Crystalline silica has been classified by IARC, NTP and ACGIH as a known human carcinogen and suspected human carcinogen respectively.

ACGIH Carcinogens

Magnesium silicate hydrate (CAS 14807-96-6)	A4 Not classifiable as a human carcinogen.
Quartz (CAS 14808-60-7)	A2 Suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Magnesium silicate hydrate (CAS 14807-96-6)	2B Possibly carcinogenic to humans. 3 Not classifiable as to carcinogenicity to humans.
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.

US NTP Report on Carcinogens: Known carcinogen

Quartz (CAS 14808-60-7)	Known To Be Human Carcinogen.

Epidemiology	Not available.
Mutagenicity	Not available.
Neurological effects	Not available.
Reproductive effects	Not available.
Teratogenicity	Not available.
Symptoms and target organs	Not applicable.
Further information	No other specific acute or chronic health impact noted.

12. Ecological Information

Ecotoxicity	The product is not expected to be hazardous to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.

Partition coefficient	No data available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	Not regulated.
Disposal instructions	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Recover and reclaim or recycle, if practical.
Contaminated packaging	Dispose product packaging in accordance with local authority requirements taking into account characteristics of the packaging material.

14. Transport Information

DOT

Not regulated as a hazardous material by DOT.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

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

Not regulated.

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

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)	Not controlled
Canadian regulations	This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
WHMIS status	Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Hazardous Substances (Director's): Listed substance

Magnesium silicate hydrate (CAS 14807-96-6) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Quartz (CAS 14808-60-7) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (CAS 14808-60-7) Listed: October 1, 1988 Carcinogenic.

US - New Jersey RTK - Substances: Listed substance

Magnesium silicate hydrate (CAS 14807-96-6) Listed.
Quartz (CAS 14808-60-7) Listed.

US. Massachusetts RTK - Substance List

Magnesium silicate hydrate (CAS 14807-96-6) Listed.
Quartz (CAS 14808-60-7) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Magnesium silicate hydrate (CAS 14807-96-6) Listed.
Quartz (CAS 14808-60-7) Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 0
Instability: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.