



GOLDSCHMIDT

Smart Rail Solutions

SAFETY DATA SHEET

Luting Sand

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Luting Sand
SYNONYMS: Luting Compound, Clay, Packing Sand

MANUFACTURER: **ORGO-THERMIT, Inc.**
DIVISION: **A Member of the Goldschmidt-Thermit-Group**
ADDRESS: 3500 Colonial Drive North; Manchester, NJ 08759

EMERGENCY PHONE: (800) 424-9300 (CHEMTREC USA Assistance)
(613) 424-6666 (CANUTEC Canada Assistance)

OTHER CALLS: (732) 657-5781
FAX: (732) 657-5899

PRODUCT USE: A pre-mixed (moist) granular sand, clay, and water mixture to seal the mold to the rail surface for field welding.

SECTION 2: HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION:

The product as shipped is not considered a hazardous chemical as defined in 29 CFR 1910.1200 Hazard Communication.

SIGNAL WORD:

No signal word is required because the product as shipped is not hazardous.

HAZARD STATEMENT

No hazard statement is required because the product as shipped is not hazardous.

PICTOGRAMS:

No pictograms are required on container labels because the product as shipped is not hazardous.

PRECAUTIONARY STATEMENT:

No precautionary statement is required because the product as shipped is not hazardous.

OTHER HAZARD INFORMATION:

As long as the product remains moist as shipped, exposure to the silica sand component of the product is not expected. Should the product dry out, however, it could produce dust that contains crystalline silica. Appropriate precautions to prevent exposure to dust should be taken including wetting the dried material and wearing appropriate Personal Protective Equipment (Section 8) when handling the dried product.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product ingredients are listed below but weight percentages are not listed as they are considered trade secrets.

INGREDIENT	CAS NO.	% WT
Crystalline Silica	14808-60-7	proprietary
Bentonite	1302-78-9	proprietary
Water	7732-18-5	proprietary

SECTION 4: FIRST AID MEASURES

POTENTIAL HEALTH EFFECTS

EYE CONTACT:

Not considered a hazard due to physical form of product as shipped. If the product should dry, dust produced may cause eye discomfort and abrasive eye inflammation. Scratching of the cornea can occur if eye is rubbed.

In case dust enters the eye, immediately flush with water for at least 15 minutes, occasionally lifting the eyelids. Remove contact lenses if present, and continue flushing eyes. Get medical attention if irritation persists.

SKIN CONTACT:

If the product dries on the skin, irritation or abrasion could occur. Best practice is to wear work gloves when handling the product.

After handling the product, wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION:

Not considered an ingestion hazard. However, if excessive amounts of dust or particulates are swallowed, treat symptomatically and supportively. Get medical attention if needed.

INHALATION:

Not considered a hazard due to physical form of product as shipped. If the product should dry, dust may be discomforting if inhaled. Best practice is to limit exposure by not allowing the product to dry or to wet it if it does. Crystalline silica contained in the product may pose a considerable hazard with respect to long term exposure by inhalation.

In case of overexposure to dust or fumes, move to fresh air. Loosen tight clothing such as collar, tie, belt, or waistband. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Any breathing difficulty should be evaluated by a medical professional.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS: Not applicable.

FLASH POINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

EXTINGUISHING MEDIA:

Noncombustible solid. Product is not flammable, combustible, nor explosive. Use appropriate extinguishing media for any surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES:

Product will not burn. Wear personal protective equipment appropriate for fighting any surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None.

HAZARDOUS DECOMPOSITION PRODUCTS:

None.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Spills are not likely with this product in the form as shipped. If the product dries out, avoid generation of dust when sweeping material into a disposal container by spraying with water or using a HEPA-filtered vacuum. If dust is generated, avoid inhalation of the dust by wearing appropriate NIOSH/MSHA approved dust respirator or filter.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Minimize dust generation and accumulation. Avoid inhalation and ingestion.

STORAGE:

Store in a cool, dry area.

OTHER PRECAUTIONS:

DO NOT USE material that got wet for rail welding. While water does not affect the luting sand itself, the addition of water to the Thermit® reaction can result in violent reactions. Since the intended use for the luting sand is to shape the Thermit® steel and prevent run-outs, it is recommended to dispose of wet materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The product as shipped contains silica sand (crystalline silica), but is not considered to be hazardous a hazardous material because it does not generate dust as long as it remains wet. If the product should dry, dust produced could expose users to silica sand dust which is covered by 29 CFR 1910.1053 – Respirable crystalline silica.

INGREDIENT	ACGIH TLV	OSHA PEL	NIOSH
Crystalline Silica	0.025 mg / m ³	0.05 mg / m ³	0.05 mg / m ³

ENGINEERING CONTROLS:

Engineering controls to prevent exposure are not necessary under normal use conditions for the product. When cleaning up material that has dried, it should be wetted with water before sweeping or a HEPA-filtered vacuum may be used to prevent dust generation.

VENTILATION :

Local exhaust ventilation or other engineering controls are not necessary under normal use conditions for this product.

RESPIRATORY PROTECTION:

Use a NIOSH/MSHA approved respirator if exposure limits are expected to be exceeded, or if irritation or other symptoms are experienced when cleaning up dried product.

EYE PROTECTION:

Safety glasses should be used when handling this product and during rail welding operations. When igniting Thermit® Welding Powder, shade 5 welding eye protection is recommended until the welding process is completed.

SKIN PROTECTION:

Wear appropriate protective clothing, shoes, and gloves to prevent skin exposure. When igniting Thermit® Welding Powder, protect skin from high temperatures. Welding gloves, jackets, pants, bibs, or aprons are recommended for use during the welding process.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brown – yellow sand mixture
ODOR: Odorless
PHYSICAL STATE: Solid

pH AS SUPPLIED: 6-8
BOILING POINT: 4046°F / 2230°C
MELTING POINT: 3110°F / 1710°C
FREEZING POINT: Not Available
VAPOR PRESSURE (mmHg): Not Available
VAPOR DENSITY (AIR = 1): Not Available
SPECIFIC GRAVITY (H₂O = 1): 2.65 g/mL @ 20°C
EVAPORATION RATE: Not Applicable
SOLUBILITY IN WATER: Insoluble
WEIGHT PERCENT SOLIDS: 100% Solids

SAFETY DATA SHEET

Luting Sand

PERCENT VOLATILE: Not Available
MOLECULAR WEIGHT: Not Available
VISCOSITY: Not Available

SECTION 10: STABILITY AND REACTIVITY

STABILITY: ☒ **STABLE** ☐ **UNSTABLE**

CONDITIONS TO AVOID (STABILITY): Does not spontaneously ignite.

INCOMPATIBILITY (MATERIAL TO AVOID): Hydrofluoric acid.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Silica will dissolve in hydrofluoric acid and produce a corrosive gas, silicon tetrafluoride.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID (POLYMERIZATION): Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY:

The primary routes of exposure to crystalline silica should this product dry are inhalation and inadvertent ingestion from inhaling dust. Dust can also contact skin and eyes.

ACUTE EFFECTS ON HUMANS:

Acute silicosis occurs after a few months or as long as 2 years following exposures to extremely high concentrations of respirable crystalline silica.

CHRONIC EFFECTS ON HUMANS:

Inhalation of respirable crystalline silica may result in silicosis. The respirable silica dust enters the lungs and causes the formation of scar tissue, thus reducing the lungs capability to take in oxygen. There is no cure for silicosis. Silica, Crystalline (Respirable Size) is listed on the National Toxicology Program Report on Carcinogens and on the International Agency Research on Cancer Monographs as a Group 1 human lung carcinogen. The IARC has determined from a review of human and animal studies that there is sufficient evidence for the carcinogenicity of crystalline silica.

OTHER TOXIC EFFECTS ON HUMANS:

The substance can be a skin irritant. Material can be irritating to mucous membranes and upper respiratory tract.

TOXICITY TO ANIMALS:

Silica sand has caused cancer in animals with the target organ being the lungs.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY (AQUATIC AND TERRESTRIAL): There are no reported effects on aquatic organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

No special waste disposal methods are required for this product, but check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulation. It is the responsibility of the user to dispose of the material in the proper manner.

RCRA HAZARD CLASS:

Neither the product nor the ingredients of the product are Listed or Characteristic Hazardous Wastes.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME:	LUTING SAND
HAZARD CLASS:	NOT APPLICABLE
ID NUMBER:	90220
PACKING GROUP:	NOT APPLICABLE
LABEL STATEMENT:	ITEM#90220 CLASS 50

WATER TRANSPORTATION

PROPER SHIPPING NAME:	LUTING SAND
HAZARD CLASS:	NOT APPLICABLE
ID NUMBER:	90220
PACKING GROUP:	NOT APPLICABLE
LABEL STATEMENTS:	ITEM#90220 CLASS 50

AIR TRANSPORTATION

PROPER SHIPPING NAME:	LUTING SAND
HAZARD CLASS:	NOT APPLICABLE
ID NUMBER:	90220
PACKING GROUP:	NOT APPLICABLE
LABEL STATEMENTS:	ITEM#90220 CLASS 50

CANADA TDG: Not regulated.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

EPCRA Section 302 – Extremely Hazardous Substances:

Not listed.

CERCLA - Hazardous Substances:

None listed.

EPCRA Section 313 – Toxic Chemicals:

Not listed.

CAA 112(r) - Regulated Chemicals for Accidental Release Prevention:

Not listed.

STATE REGULATIONS:

New Jersey Right to Know Hazardous Substance List:

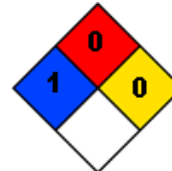
CAS # 14808-60-7, Silica - Quartz, is listed.

California Proposition 65 List of Chemicals:

Crystalline silica is listed.

SECTION 16: OTHER INFORMATION

NFPA HAZARD CLASSIFICATION



HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

OTHER: None

Note: NFPA classifications are 0 - 4, with 4 as the most severe.

HMIS HAZARD CLASSIFICATION

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

PROTECTION: Safety glasses, gloves, dust respirator recommended.

Note: HMIS classifications are 0 - 4, with 4 as the most severe.

HMIS	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PPE	E

PREPARATION INFORMATION: Last revised August 17, 2017. Reviewed 1/12/2021

DISCLAIMER:

Orgo-Thermit Inc. believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Orgo-Thermit has no continuing control over such changes; those handling, storing, or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored, used, or disposed of, and that the same is done in accordance with federal, state, and local law. Orgo-Thermit Inc. makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein, or with respect to fitness for any particular use.