

SAFETY DATA SHEET



Thermoseal Inc.
2350 Campbell Rd
Sidney, OH 45365 USA

Date of Issue: June 1, 2015
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1. Material/Preparation and Company Name

1.1 Description of the product:

1.3 Information on the manufacturer:

Trade name: **KLINGERSIL® C-4401**

Thermoseal Inc.
2350 Campbell Rd.
Sidney, OH 45365

1.2 Application of the product:

Gasket material for application in bolted flanged joints

Contact: Quality Manager – Paul Francis
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2. Hazard Identification

Identification of danger: In its form as supplied no hazards known.

3. Composition/Information on Components

3.1 Chemical Characteristics

Material contents Ingredient	CAS#	Percent by weight	OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Calcium Silicate	13983-17-0	40-50	15	10
Kaolin	1332-58-7	10-20	5	2
Calcined Kaolin	92704-41-1	5-10	5	2
Silicon dioxide	112926-00-8	<5	NA	NA
Aramid-fibres	26125-61-1	<5	NA	NA

Danger classification not necessary as no dangers are known based on the level of knowledge at the present time.

4. First Aid Actions

After inhaling: Not applicable (accordingly see point 6)

After skin contact: Not applicable (accordingly see point 6)

After eye contact: Remove small solid particles and rinse with water approx. 10 min.
If provoking continues, a doctor must be consulted.

After swallowing: No measures necessarily.

Note for the doctor: Not applicable.

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5. Measures for Firefighting

Suitable extinguishing agent: Water, carbon dioxide, powder extinguishers, foam extinguishers.

Extinguishing agents which is unsuitable for safety reasons: Not known.

Special dangers through the material or the preparation itself, its combustion products or resulting gases: In the case of combustion, the same gases are produced as with burning rubber. Heavy carbon black formation.

The following can be produced in case of fire: Carbon monoxide, carbon dioxide, sulphur oxides and nitrous gases (NOx), irritating/caustic, combustible as well as poisonous carbonisation gases.

Special protective equipment: When Firefighting, breathing apparatus and eye protection have to be worn against dust and fumes and burning rubber.

Additional note: There is the danger of the rubber re-igniting. For this reason, additional cooling after extinguishing is necessary.

6. Measures in Case of Unintentional Release

Precautionary measures related to persons: Avoid dust formation

Environmental protection measures: No dangers known.

Procedure for cleaning: Use of approved vacuum cleaners with fine dust filters.

6.1 Measures in Case of Unintentional exceeding Dust Release

General Note: In case of improper use and use which is not in compliance with stipulations e.g. grinding might cause an exceeding amount of fine dust. In this case apply protective respiratory equipment meeting MSHA/NIOSH standards.

After Inhaling: Bring to fresh air.

After skin contact: Washing with soap

7. Handling and Storage

7.1 Handling

Notes on safe handling: Measures for the avoidance of strong dust formation.

Notes on protection against fire and explosion: Material is flammable only through effects of an external flame.

7.2 Storage

Requirements on storage rooms and containers: Dry storage rooms. Material should not be stored in the vicinity of the heating as it can become brittle and no longer usable in accordance with stipulations.

Notes on storing together with other products: No restrictions or dangers known.

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8. Limits of Exposure and Personal Protective Equipment

<p>8.1 Exposure References See point 7; no further measures necessarily</p> <p>8.2 Personal Protective Equipment for processing Breathing protection: in case of high fine dust concentrations use personal protective equipment (e.g. fine –dust respirator acc. MSHA/NIOSH standards).</p> <p>Hand protection: Gloves</p> <p>Body protection: Overall</p>
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9. Physical and Chemical Characteristics

9.1. Appearance	
Form: firm sheets	Color: Surface: green, black, white
Odor: gummy	Cut edge: green
9.2 Safety-related data	Value/Range
Change in state	not known
Boiling point/Boiling range:	n.a.
Melting point/Melting range:	n.a.
Decomposition of elastomer:	over 300°C
Flash point:	not known
pH-Wert:	n.a.
Ignitability of solid material:	not known
Ignition temperature	not known
Self-igniting solid material:	Not self-igniting
Fire-promoting properties:	self-burning
Danger of explosion	None
Explosion limits:	n.a.
Vapour pressure:	n.a.
Density:	1,59 g/cm ³ (at 25°C)
Solubility in water/grease:	insoluble

10. Stability and Reactivity

<p>Conditions to be avoided: temperatures >450°C</p> <p>Materials to be avoided: Not known</p> <p>Dangerous decomposition products: hydrogen cyanide</p> <p>The following can result in case of fire: Carbon monoxide, carbon dioxide, sulphur oxides and nitrous gases (NOx), irritating/caustic, combustible as well as poisonous carbonisation gases.</p> <p>The product is stable under standard conditions.</p>

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11. Information on Toxicology

In the case of intended use no toxicological effects are known.

12. Information on Ecology

12.1 Information on elimination (Persistence and degradability)

Degree of elimination: not known

Persistence: As composite material biologically not degradable (self-classification)

12.2 Mobility and (bio) accumulation potential:

water insoluble, fat insoluble, no in vivo resorption, bonding or accumulation known

12.3 Ecotoxicological Effects

Not known

13. Notes on Disposal

13.1 Product

Recommendation: combustion by a certified recycling company.

Product contains $\geq 3\%$ organic carbon.

13.2 Contaminated Packaging

Recommendation: Disposal in accordance with the national regulations.

14. Information on Transport

14.1 Transport/Further Information

No dangers known.

15. Regulations

Regulations for dangerous material not applicable.

The product covered by this safety information is classified as an article according to regulation (EG) Nr. 1907/2006 (REACH). In compliance with REACH regulation it is not mandatory to issue material safety data sheets for articles.

Duty to communicate information according to regulation (EG) Nr.1907/2006 (REACH):

The article covered by the present safety data sheet does not contain any substance of very high concern by the candidate list to be included in Annex XIV of REACH exceeding the limit of 0,1% (w/w).

Material conforms to the definitions and restrictions given by the European Parliament Directive 2002/95/EC (RoHS) and the Council of January 27, 2003 and European Parliament Directive 2011/65/EU (RoHS 2) and the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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16. Other Information

The data rely on the present conditions of the knowledge and experiences and serve to describe the product regarding safety precautions which can be met. They do not represent a warranty of the product described by characteristics.

Contact person

Mr. Paul Francis Quality and Technical Manager

Revision state: 01

Revision/Modification	Point / Sheet	Date