



# SAFETY DATA SHEET

<b>1</b>	<b>IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING</b>
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**Product name:** Thermojacket D

**Supplier:**

Federal-Mogul Corporation, Manchester International  
Office Centre  
Styal Road, Manchester M22 5TN  
England  
Tel: +44 (0) 161 955 5200  
Fax: +44 (0) 161 955 5204

**Emergency telephone:**

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International: (001) 352-323-3500

**Intended use:** Industrial chemical

**Contact person:**

MSDS Request (voicemail):  
+1-248-354-9844  
e-mail: Stuart.Cheung@federalmogul.com

<b>2</b>	<b>HAZARDS IDENTIFICATION</b>
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The product has been classified according to the legislation in force. Although several of the ingredients used to formulate this product may be hazardous in the raw state, the manufacturing process results in a solid infusible form, binding and otherwise, rendering the product inert. The ingredients may be released from the product by operations such as overheating, burning, machining, abrading, or riveting.

**Classification:** | Xi; R38 |

The full text for all R-phrases is displayed in Section 16.

**Potential health effects**

**Inhalation:** The ingredients may be released from the product by operations such as overheating, burning, machining, abrading, or riveting. Dust may irritate the respiratory system.

**Eye contact:** The ingredients may be released from the product by operations such as overheating, burning, machining, abrading, or riveting. Dust in the eyes will cause irritation.

**Skin contact:** Irritating to skin. The ingredients may be released from the product by operations such as overheating, burning, machining, abrading, or riveting.

**Ingestion:** No adverse effects due to ingestion are expected.

**Other health effects:** Chronic exposure to fiber dust may cause permanent lung injury.

**Potential physical / chemical effects:** This product is not flammable.

**Environment:** No data available.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

**General information:** The ingredients may be released from the product by operations such as overheating, burning, machining, abrading, or riveting.

Chemical name	EC No.	CAS-No.	Concentration *	Classification	Notes
Refractory ceramic fibres	266-046-0	65997-17-3	55 - 65%	Xi;R38	-
Amorphous silica	231-545-4	7631-86-9	36 - 42%	-	-
Aluminium oxide	215-691-6	1344-28-1	< 3%	-	-

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all R-phrases is displayed in Section 16.

### 4 FIRST-AID MEASURES

**Inhalation:** Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and take along these instructions.

**Eye contact:** Flush thoroughly with water for at least 15 minutes. **Dust in the eyes:** Make sure to remove any contact lenses from the eyes before rinsing. Get medical attention if irritation persists after washing.

**Skin contact:** Wash contact areas with soap and water. Get medical attention promptly if symptoms occur after washing.

**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious).

### 5 FIRE-FIGHTING MEASURES

**Extinguishing media:** This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

**Inappropriate extinguishing media:** None.

**Special fire fighting procedures:** Use standard firefighting procedures and consider the hazards of other involved materials.

**Unusual fire & explosion hazards:** The product is non-combustible. If heated, toxic vapours may be formed.

**Hazardous combustion products:** Carbon dioxide, Carbon monoxide

**Protective measures:** Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Avoid dust formation. Avoid inhalation of dust and contact with skin and eyes. Wear necessary protective equipment. See Section 8 for personal protective equipment.

**Spill cleanup methods:** Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.

**Environmental precautions:** Avoid discharge into water courses or onto the ground. Collect and dispose of spillage as indicated in section 13.

**Notification procedures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

## 7 HANDLING AND STORAGE

**Handling:** Provide adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Use work methods which minimise dust production. Wear suitable protective clothing and gloves. Observe good industrial hygiene practices.

**Storage:** Store in tightly closed original container. Store away from incompatible materials. Avoid conditions which create dust. Protect against direct sunlight.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure limit values:

Chemical name	Source	Type	Workplace exposure limits	Notes
Amorphous silica (Respirable dust.)	EH40/2005	TWA	2.4 mg/m <sup>3</sup>	
Amorphous silica (Inhalable dust.)	EH40/2005	TWA	6 mg/m <sup>3</sup>	
Aluminium oxide (Inhalable dust.)	EH40/2005	TWA	10 mg/m <sup>3</sup>	
Aluminium oxide (Respirable dust.)	EH40/2005	TWA	4 mg/m <sup>3</sup>	

**Engineering controls:** Provide sufficient ventilation for operations causing dust formation. Observe good industrial hygiene practices.

**Respiratory protection:** During dust-raising work: Use respiratory equipment with particle filter, type P1. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye protection:** Risk of contact: Wear protective gloves and goggles/face shield.

**Hand protection:** Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

**Skin protection:** Risk of contact: Wear suitable protective clothing.

**Hygiene measures:** 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.

**Environmental exposure controls:** Environmental manager must be informed of all major spillages.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Solid

**Colour:** White  
**Odour:** Odourless  
**Odour threshold:** No data available.  
**pH:** Not applicable  
**Melting point:** >1649°C (3000°F)  
**Freezing point:** No data available.  
**Boiling Point:** Not applicable  
**Relative density:** 0.32  
**Vapour pressure:** Not applicable  
**Vapour density (air=1):** No data available.  
**Evaporation rate:** Not applicable  
**Solubility in water:** Insoluble  
**Solubility (other):** No data available.  
**Partition coefficient (n-octanol/water):** No data available.  
**Viscosity:** Not applicable  
**Flash point:** No data available.  
**Autoignition temperature:** No data available.  
**Flammability limit - lower(%):** No data available.  
**Flammability limit - upper (%):** No data available.

<b>10</b>	<b>STABILITY AND REACTIVITY</b>
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**Stability:** Material is stable under normal conditions.

**Conditions to avoid:** Strong oxidising agents.

**Materials to avoid:** Strong Acid Contact

**Hazardous decomposition products:**

At elevated temperatures:	Carbon dioxide, Carbon monoxide
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**Possibility of hazardous reactions:** Will not occur.

<b>11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**Inhalation:** Dust may irritate respiratory system.

**Eye contact:** Dust may irritate the eyes. Exposed may experience eye tearing, redness, and discomfort.

**Skin contact:** Irritating to skin.

**Ingestion:** No information about adverse effects due to exposure.

**Sensitisation:** No data available.

**Listed carcinogens:**

Chemical name	IARC	NTP	OSHA	ACGIH
Amorphous silica	3	Not listed	Not listed	Not listed
Aluminium oxide	Not listed	Not listed	Not listed	A4
Refractory ceramic fibres	Not listed	Listed	Not listed	A2

IARC: 1 = Carcinogenic to Humans; 2A = Probably Carcinogenic to Humans; 2B = Possibly Carcinogenic to Humans; 3 = Not classifiable as to carcinogenicity to humans; 4 = Probably not carcinogenic to humans; Not listed = Not evaluated by IARC.

ACGIH: A1 = Confirmed Human Carcinogen; A2 = Suspected Human Carcinogen; A3 = Confirmed Animal Carcinogen; A4 = Not classifiable as a human carcinogen; A5 = Not suspected to be a human carcinogen; Not listed = Not evaluated by ACGIH.

**Mutagenesis:** No data available.

**Reproductive toxicity:** No data available.

**Other effects:** Chronic exposure to fiber dust may cause permanent lung injury.

**12****ECOLOGICAL INFORMATION**

**Ecotoxicity:** No data available.

**Mobility:** The product contains substances which are insoluble in water and which sediment in water systems.

**Persistence and degradability:** The product contains inorganic compounds which are not biodegradable.

**Bioaccumulation potential:** No data available.

**13****DISPOSAL CONSIDERATIONS**

**General information:** Dispose of waste and residues in accordance with local authority requirements.

**Disposal methods:** 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.

**European waste codes**

**Unused product:** 16 03 03\*

**Container:** 15 01 02

**14****TRANSPORT INFORMATION**

**ADR/RID** Not regulated.

**IMDG** Not regulated.

**IATA** Not regulated.

**15****REGULATORY INFORMATION**

Irritant.

R38; Irritating to skin.

S24/25; Avoid contact with skin and eyes. S36/37/39; Wear suitable protective clothing, gloves and eye/face protection. S60; This material and its container must be disposed of as hazardous waste.

**16****OTHER INFORMATION**

**Wording of the R-phrases in sections 2 and 3:** R38; Irritating to skin.

**Inventory status:** All substances are listed on EINECS.

**Issued by:** Federal Mogul Corporation

**Issue date:** 19-Dec-2007

**Supersedes date:**

**SDS No.:** 1009054

**Disclaimer:** The information provided on this data sheet was abstracted from supplier safety data sheets and standard references in occupational health and toxicology. Federal-Mogul makes no representation or warranty with respect to the information obtained from such references. The information is however, as of the date provided, true and accurate to the best of Federal-Mogul's knowledge, and should be used to make an independent determination of the methods to safeguard workers and the environment.