

MZAF Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION OF THE COMPANY

PRODUCT: MZAF Friction Material
COMMON USES: Brakes/Clutch Lining
SUPPLIER: Ferotec Friction Ltd
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2. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains a number of ingredients, all of which have become sealed in a fatty acid binder resulting in a low probability of dust/fibre release.

Chemical Name	CAS No	Concentration (%)	OES /MEL	Exposure limit	Risk Phrases
Glass Fibre	287922-116	< 30	2 fibres/ml, 5mg/m ³ dust	8 hour TWA	R38, R40
Copper	7440-50-8	< 6	0.2 mg/m ³ fume 1mg/m ³ dust	8 hour TWA	

3. HAZARD IDENTIFICATION

Exposure to dust created by handling this product should be kept a low as reasonably practicable and limits as above are observed. Handling of this product may cause skin irritation. No health risks have so far been known in cases where this product has been handled and processed properly.

4. FIRST AID MEASURES

Inhalation Avoid breathing dust. In the event of excessive inhalation of dust, remove the individual to fresh air. Obtain medical advice.
Skin Contact Clean skin with soap and water. Obtain medical advice if irritation persists.
Eye Contact Irrigate with clean water for at least 15 minutes. Obtain medical advice if irritation persists.
Ingestion It is not normally considered that the product will be ingested, but if small quantities are ingested, seek medical advice.

5. FIRE-FIGHTING MEASURES

Extinguishing Media Any standard extinguishing media may be used.
Protective Equipment Fire fighters, and others exposed, wear self-contained breathing apparatus.
Exposure Hazards When heated to very high temperatures, may give off smoke and decomposition products which may contain toxic compounds.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment as recommended in section 8. Avoid breathing dust.
Environmental Precautions No special precaution required
Methods for Cleaning up Remove any dust generated by vacuum or wet cloth.

7. HANDLING AND STORAGE

Handling Excessive handling may generate dust. Use adequate ventilation to keep dust concentration below stipulated standard.
Storage Conditions Prevent exposure to temperatures above 100°C.

MZAF Safety Data Sheet

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures	Use local exhaust ventilation to maintain airborne dust levels to below established exposure standard.
Personal Protection	
Respiratory Protection	Wear suitable protection if exposure limits are exceeded.
Hand Protection	Wear impervious gloves.; use suitable barrier creams and maintain good hygiene standards.
Eye Protection	Wear safety glasses when machining or abrading the product.
Skin Protection	Wear overalls of close weave material

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Straw solid	Colour	Yellow
pH-value	Not applicable	Melting point/range	Not applicable
Explosive properties	As supplied, does not present an explosion hazard. however, dust produced from grinding operations presents an explosion hazard.		
Density	1.30 to 1.40 g/cm ³	Autoflammability	> 350°C
Flammability	Does not support combustion but will burn at elevated temperatures. Will burn when finely divided.		
Odour	Characteristic friction material odour	Boiling point/range	Not applicable
Flash point	Not applicable	Vapour pressure	Not applicable
Solubility in water	Not applicable	Viscosity	Not applicable

10. STABILITY AND REACTIVITY

Stability	Stable
Conditions to avoid	Prolonged exposure to elevated temperatures >300°C
Materials to avoid	Not applicable
Hazardous decomposition products	CO, CO ₂ , phenol and formaldehyde
Hazardous Reactions	None - relatively inert

11. TOXICOLOGICAL INFORMATION

Short Term Effects

Inhalation	May cause irritation to upper respiratory tract
Ingestion	Not established
Skin Contact	May cause temporary irritation
Eye Contact	May cause irritation

Chronic Effects

Inhalation	The glass fibre present in this product is not classified as respirable (<i>fibres with diameters <3.0µm that are capable of entering the respiratory system</i>). Assessment of toxicity of man-made mineral fibres has identified the fact that fibres which cannot enter the respiratory system will not be a factor for the induction of respiratory diseases.
Ingestion	Not established
Skin Contact	Not established
Eye Contact	Not established
Carcinogenicity	The International Agency for Research on Cancer designated glass fibre a Group 3 "not classifiable as to human carcinogenicity".

12. ECOLOGICAL INFORMATION

Bioaccumulation	Not established
Mobility	Not established
Ecotoxic effects	Not established
Biodegradation	Not inherently biodegradable

13. DISPOSAL CONSIDERATION

Product	Seal all dust created by abrading in impervious bags and dispose to a suitable licensed landfill site.
Contaminated Packaging	Remove all packaging for recovery or incinerate/landfill

14. TRANSPORT INFORMATION

Not classified as dangerous for conveyance. use any container of suitable size and length.

MZAF Safety Data Sheet

15. REGULATORY INFORMATION

EEC Classification

Risk Phases

Safety Phrases

Refer to

Please note

Not classified

Irritating to skin (R38)

Possible risks of irreversible effects (R40)

Wear suitable protective clothing and gloves (S36/37)

Health & Safety at Work Act 1974

Control of Substances hazardous to Health (COSHH) Regulations 1994

This Safety Data Sheet does not constitute the user's own assessment of workplace risk as required by other health and safety legislation.

16. ADDITIONAL INFORMATION

Further Information

Health and Safety Executive Guidance Note

EH40/2000- Occupational Exposure Limits 2000

Health and Safety Executive Guidance Note

EH46- Man-Made Mineral Fibres

Health and Safety Executive Guidance Note

MDHS14 - General Methods for the Gravimetric Determination of Respirable and Total Inhalable Dust

Health and Safety Executive Guidance Note

MDHS59 - Man-Made Mineral Fibre

This information is based on our present knowledge and is accurate at the date of issue, to the best knowledge of Ferotec Friction Ltd. However, it shall not constitute a guarantee for any specific product featured and shall not establish a legally contractual relationship and condition or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of the product.

For any additional information, contact Ferotec Friction Ltd.