



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: MM and MM-MEX.

Product family: Aramid fabric materials.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Industrial brake uses.

The full text of any mentioned and identified application categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company: Frenos Sauleda S.A.

Address: Barri Migdia S/N-Sant Cebria de Vallalta-08396-Barcelona, Spain.

Telephone: (34) 937631120

Fax: (34) 937631061

E-mail address of person responsible for the SDS:

quality@frenossauleda.com

1.4. Emergency telephone number

Use your national or local emergency number.

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

All products listed in section 1 are not classified as dangerous according to regulation (EC) No 1272/2008.

2.2. Label elements

Hazard pictogram(s): -

Signal word: -

Hazard statement(s): -

2.3. Other hazards

Under normal handling conditions aramid fabric materials (identified in Section 1) as shipped are considered non-hazardous. However, processing operations (machining, riveting, drilling, or over-heating, etc.) can produce airborne particles or fumes. Over exposure to these dusts should be considered hazardous.

When processing operations, is recommended the use of personal protection such as mask, glasses, gloves and industrial clothes to avoid inhalation, skin and eye contact and also accidental ingestion.



SECTION 3: Composition & Information on Ingredients

3.1. Mixture

Products identified in Section 1 are mixture of the following Asbestoses free ingredients in a resin and aramid fabric bonded form. Hazards normally associated with pure dusts of the listed ingredients should be reduced significantly in normal use and service of the product. The ingredients listed in this data sheet are contained in the products identified. Exact formulations are considered proprietary and confidential and as such precise product information will not be disclosed, other than to a health professional in accordance with the regulations, without and approved Secrecy Agreement.

Ingredient	CAS #	WEIGHT (%)	OSHA PEL	ACGIH TLV
Phenolic Resin Cured	9003-35-4	25 - 40	NA	NA
Aramid fibre	26125-61-1	25 - 40	NA	1 fiber/cc
Glass fibre	65997-17-3	25 - 40	5 mg/m ³ TWA	5 mg/m ³ TWA
*Copper thread	7440-50-8	10 - 15	1 mg/m ³ TWA	1 mg/m ³ TWA

*Only contained in MM.

SECTION 4: First Aid Measures

4.1. Description of first aid measures

Just in case of over exposure to the machining operations dusts produced which should be considered hazardous. It isn't necessary in normal handling conditions.

Inhalation: dust may cause irritation. Remove from exposure to fresh air, restore breathing, and get medical attention.

Skin contact: prolonged skin contact may cause skin sensitization, irritation and/or dermatitis. Wash affected area thoroughly with soap and water. If irritation persists, get medical attention.

Eye contact: dust may cause irritation and redness. Particles may scratch the eye. Flush eyes with large amounts of water for 15 minutes with eye lids open, get medical attention.

Ingestion: ingestion may cause irritation, nausea, vomiting and diarrhea. Give large quantities of water and induce vomiting, get medical attention. Do not make unconscious people vomit.

4.2. Most important symptoms and effects, both acute and delayed

Some persons may be sensitive to phenolic resins and develop dermatitis-type problems, causing skin eruption similar in appearance to poison ivy.

Dust of fiber silica can produce pneumoconiosis, silicosis, a progressive degenerative scarring of lung tissue and other lung damage.

Gastrointestinal disturbances if ingestion.

Metal dusts can be irritants of the eyes and upper respiratory system.

Aramid and glass fibre may create irritation of the skin in some persons.



4.3. Indication of any immediate medical attention and special treatment needed

Non specific.

SECTION 5. Fire fighting measures

Flash Point: NA **Flammable limits:** NA LEL UEL

Extinguishing media: water (class A, B or C).

Special fire fighting procedures: positive pressure self-contained breathing apparatus should be used, personnel not having suitable respiratory protection should leave the area to prevent significant exposure of toxic combustion gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Machining activities can result in the release of airborne dust. Use personal protection such as mask, glasses, gloves and industrial clothes to avoid inhalation, skin and eye contact and also accidental ingestion.

6.2. Environmental precautions

No specific demands.

6.3. Methods and material for containment and cleaning up

Remove the dust by vacuuming or wet mopping. Vacuums used for this purpose should be equipped with HEPA filters. Do not use compressed air to blow dust in the workplace.

6.4. Reference to other sections

See section 13 regarding handling of waste.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Provide adequate ventilation during machining operations in which can result in the release of airborne dust. Use approved vacuum or wet methods to remove dust. Vacuums used for this purpose should be equipped with HEPA filters. Do not use compressed air to blow dust. Use respirator if dust becomes airborne. Section 8 should be followed for personal protection.

7.2. Conditions for safe storage, including any incompatibilities



Always store in the same container as the original material. Storage in a dry and frost-free place.

7.3. Specific end use(s)

If possible collect spillage during work.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL: no data available.

DNEL / PNEC: no data available.

8.2. Limitation and control of the exposition

Respiratory protection: in case machining these products use auto-filter mask (FFP1S).maximum level of use: 4x TLV for particles.

Ventilation: Local Exhaust for dust exposures exceeding TLV.
Mechanical (General): not recommended for dust exposures.
Special: NK

Protective gloves: recommended.

Eye protection: should not be needed for normal handling of products. Eye protection is good practice when dust is propelled by machining activities.

Other protective clothing or equipment: long sleeve shirts or other protective clothing may be appropriate to prevent skin contact for persons with skin sensitive to phenolic resins, glass fibre and aramid fibre.

Work/Hygienic Practices: employees should be properly instructed in the use of control measures as indicated above when there is a need for it. If dust from these products is produced, unnecessary accumulation of dust should be avoided.

SECTION 9: Physical and chemical properties

Appearance: Solid.

Specific gravity (ASTM D792-91): 1.30 – 1.50 gr/cm³

Color: yellow-brown.

Boiling point: NA

Odor: friction material odor.

Solubility in water: No.

Vapor pressure (mm Hg): NA

Melting point: NA

Vapor density: NA



SECTION 10: Stability and reactivity

Stability: stable.

Hazardous decomposition products: incomplete combustion will create CO, CO₂ y SO₂.

Incompatibility (materials to avoid): NK.

Hazards polymerization: will not occur. This product is fully cured.

Conditions to avoid: prolonged exposure to elevated temperatures >300°C.

SECTION 11: Toxicological information

Short term effects

Inhalation: May cause irritation to upper respiratory tract.

Ingestion: NK.

Skin contact: May cause temporary irritation.

Eye contact: May cause irritation.

SECTION 12: Ecological information

Mobility: NK.

Biodegradation: NK.

Ecotoxicity: NK

SECTION 13: Disposal considerations

Product: landfill in compliance with all applicable Federal, state and local regulations. Seal all dust created by abrading in impervious bags and dispose to a suitable licensed landfill site.

Contaminated packing: remove all packaging for recovery or incinerate/land.

SECTION 14: Transport information

Not classified as dangerous for conveyance.

Transport labels: not required.

NºUN: not required.

ADR/RID (by earth/ by railway): not required.

IMO-IMDG (by sea): not required.

ICAO (by air): not required.



SECTION 15: Regulatory information

Hazardous indications: these products are not considered dangerous according to 67/548/EEC directive and its modifications and adaptations.

International stocks: all the components of these products are consigned or exempt in the following stocks.

Australian Inventory of Chemical Substances (AICS).

Canadian Domestic Substances List (DSL).

The Inventory of Existing Chemical Substances in China (IECSC).

European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Existing and New Chemical Substances (ENCS).

Philippine Inventory of chemicals and chemical substances (PICCS).

United States Toxic Substances Control Act (TSCA).

American Conference of Governmental industrial hygienists (ACGIH TLV-TWA).

Control of Substances hazardous to Health (COSHH).

SECTION 16: Other information

Abbreviations

NA: Not Available.

NK: Not Know.

CAS #: Chemical Abstract Services Number.

OSHA PEL: U.S. Occupational Safety and Health Administration Permissible Exposure Limits.

ACGIH TLV: American Conference of Governmental Industrial Hygienists Threshold Limit Value (2005).

Notes

This information describes our products on possible security requirements; it is based in the acquired acknowledgement and our experience. The data may not be exhaustive and it should be used as an orientate title which doesn't mean expressed guaranty.

The company shall in no event be responsible for any damages of whatever nature directly or indirectly resulting from the publication or use of or reliance upon the data provided herein. No express or implied warranty of any kind, including warranties of sale of fitness for use.

The safety data sheet is validated by

Ricard Antich, Quality and environmental department.