Mechanomade FA25

eco-friendly

1. Identification of the substance and of the company

1.1 Identification of the substance or preparation:

Trade Name (as Labeled):	Mechanomade FA25
Chemical Name/Class:	FA75Al25

1.2 Uses of substance: Mechanical components.

1.3 Company identification:

Company	MBN Nanomaterialia S.p.A. Via G. Bortolan, 42 31050 Vascon di Carbonera TV – ITALY –
Company ref. Person:	Paolo Matteazzi Ph: +39 (0)422 447341 info@mbn.it
MSDS ref. person	Roberto Rolli: Ph: +39 (0)422 447323 info@mbn.it

1.4 Emergency Telephone (office hours): Hospital "Niguarda di Milano" ph. +39 02 66101029

2. Hazard Identification

2.1 Classification of the substance or mixture

The preparation is NOT CLASSIFIED AS DANGEROUS according to Regulation (EC) No. 1272/2008 (CLP/GHS), Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

2.2 Label elements

Not foreseen.

2.3 Other Hazards

The product isn't considerate flammable after test method for readily combustible solid (33.2.1.4 of classification procedures, test methods and criteria relating to class 3, class 4, division 5.1 and class 9) but it is combustible and that under certain conditions (exposure to welding arc, hot welding slag, grinding sparks, open flames or embers, grinding wheel spark, high mechanical energy) it may have the ignition of dust.

Minimum Ignition Energy (MIE) test: 0.500-1.00 J (low sensitivity to electrostatic ignition).

3. Composition/information on ingredients

According to 67/548/CE

Name	CAS N°	EINECS No.	% Weight	Classification 1272/2008 (CLP)
Iron	7439-89-6	231-096-4	74-76	-
Aluminum	7429-90-5	231-072-3	24-26	H250 , H260

4.First aid measures

4.1 First aid measures

EYES: Do not rub eyes. Remove any contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.
SKIN: Wash immediately with plenty of water. Remove contaminated clothing. If irritation persists, seek medical attention. Wash contaminated clothing before using them again.
INHALATION: Remove to open air. If breathing is irregular, seek medical advice.
INGESTION: Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person.

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

Not Known.

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

Follow doctor's orders.

5. Fire-Fighting measures

5.1 Extinguishing media.

SUITABLE EXTINGUISHING MEDIA
The extinction equipment should be of the conventional kind: foam and powder.
EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS
Water and carbon dioxide.

5.2 Special hazards arising from the substance or mixture.

Avoid the exposure to welding arc, hot welding slag, grinding sparks, open flames or embers, grinding wheel spark, high mechanical energy

5.3 Advice for firefighters.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurized mask with facemask covering the whole of the operator`s face or a self-respirator (self-protector) in the event of large quantities of fume.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Use breathing equipment if fumes or powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or the leaked product before donning appropriate protective gear. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, see the other sections of this sheet.

6.2 Environmental precautions

The product must not penetrate the sewers, surface water, ground water and neighbouring areas.

6.3 Methods and material for containment and cleaning up

Hold with inert absorbent material (sand, vermiculite, diatomeous earth, Kieselguhr, etc.) to soak up leaked product. Collect the majority of the remaining material and deposit it in containers for disposal. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling.

Do not reuse empty vessels before they have been cleaned or reconditioned. Clear up industrial lines and vessels before working with ignition sources.
Before making operation of pouring off, assure yourself that inside the tank there aren't residuals of incompatible substances. In the matter of protective devices, consult section no.8

7.2 Conditions for safe storage, including any incompatibilities.

Covered, dry, and naturally ventilated area. Avoid placing materials on the floor. Keep away from food, feed and beverages. Keep away vessels from strong oxidizing agents. Powder must be kept dry. Do not stack more than 3 pallets high (drums) or 1 (big bags). The storage of the product in the stock-pilling area. Must avoid soil percolation of accidental spillages.
Avoid exposure to welding arc, hot welding slag, grinding sparks, open flames or embers, grinding wheel spark, high mechanical energy.

7.3 Specific end use(s).

Information not available.

8. Exposure controls/Personal protections

8.1 Exposure limit values:

TLV-TWA (ACGIH) - Fe :	10 mg/m^3
TLV (ACGIH) - Al :	1 mg/m^3 (respirable fraction)
OSHA PEL - Al :	15 mg/m^3 (total inhalable)
	5 mg/m^3 (respirable fraction)

VENTILATION: Work area must be sufficiently ventilated to keep concentration below the exposure

8.2 Exposure controls:

- **Engineering Controls:** use explosion-proof ventilation equipment. Use adequate ventilation to keep airborne concentrations low. Personal Protective Equipment
- **Eyes:** wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European standard EN166.
- **Skin:** Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure.
- **Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

9. Physical and Chemical properties

9.1 General information

Appearance: gray/silver powder
Physical state: Solid (Flakes)
Odour: Metallic

9.2 Important health, safety and environmental information

pH:	-
Melting point/freezing point:	980-1530 °C
Initial boiling point and boiling range:	not measured
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability (powder):	not flammable (test 33.2.1.4 perfomed)
Upper/lower flammability or explosive limits:	no data
Vapour pressure:	not applicable
Vapour density:	not applicable
Relative density:	5,3 g/cm3 (20 °C)
Solubility(ies):	insoluble
Partition coefficient:	n-octanol/water: not applicable
Auto-ignition temperature:	not measured
Decomposition temperature:	not applicable
Explosive properties:	not explosive
Oxidising properties:	not measured

9.3 Other information:

VOC (Directive 1999/13/EC) : 0
VOC (volatile carbon) : 0
The product may form explosible mixtures with air when dispersed.
Minimum Ignition Energy (MIE) test: 0.500-1.00 J (low sensitivity to electrostatic ignition).

10. Stability and reactivity

10.1 Reactivity

The product may react violently and exothermically on contact with strong oxidizing agents, strong acids or halogens.

10.2 Chemical stability

Chemically stable if used and stored according to specifications.

10.3 Possibility of hazardous reactions

None.

10.4 Conditions to avoid

Avoid incompatible substances or mixtures, dust formation, exposure to welding arc, hot welding slag, grinding sparks, open flames or embers, grinding wheel spark, high mechanical energy.

10.5 Incompatible materials

Oxidizing agents, strong acids or halogens.

10.6 Hazardous decomposition products

In the event of decomposition can be formed iron oxide and aluminum oxide.

11. Toxicological information

11.1 Information on toxicological effects

Routes of exposure:	Inhalation, ingestion and skin-contact.
Acute oral, dermal and inhalation toxicity:	Not classified
Dermal:	Not classified
Inhalation:	Not classified
Risk of exposure:	Not classified

Skin corrosion/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Repeated dose toxicity and STOT-RE:	Not classified
Mutagenicity:	Not classified
Carcinogenity:	Not classified
Reproductive toxicity:	Not classified

12. Ecological information

12.1 Toxicity:

Acute aquatic toxicity:	Not classified
Chronic freshwater toxicity:	Not classified
Chronic marine waters toxicity:	Not classified
Chronic freshwater sediment toxicity:	Not classified
Soil toxicity:	Not classified
12.2 Persistence and degradability:	Not applicable
12.3 Bioaccumulative potential:	Not applicable
12.4 Mobility in soil:	Not classified
12.5 Results of PBT and vPvB assessment:	Not classified
12.6 Other adverse effects:	None

13. Disposal considerations

13.1 Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorized waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1 Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

ICAO T.I./IATA:	not dangerous
IMDG Code:	not dangerous
ADR/RID/ADN:	not dangerous

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category: None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Contained substance: None

Substances in Candidate List (Art. 59 REACH): None.

Substances subject to authorization (Annex XIV REACH): None.

Healthcare controls: Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

The chemical safety assessment has been processed for the mixture and the substances it contains.

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet: none

Text of risk (R) phrases mentioned in section 2-3 of the sheet: none

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. The Merck Index. - 10th Edition
8. Handling Chemical Safety
9. Niosh - Registry of Toxic Effects of Chemical Substances
10. INRS - Fiche Toxicologique (toxicological sheet)
11. Patty - Industrial Hygiene and Toxicology
12. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

ABREVIATIONS:

DNEL: Derived No. Effect Level
EC10: Effective Concentration to 10% of the test organism
HC-5: The concentration without effect for 95% of the species= statistically derived environmental threshold values
LC10: Lethal concentration to 10% of the test organisms
LC50: Lethal concentration to 50% of the test organisms
LD50: Median lethal dose
NOEC: No observed effect concentration = highest concentration tested without effects
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No-Effect Concentration
REACH: EC regulation on Registration Evaluation Authorization of Chemicals
TDLo: Lowest published toxic dose
TLV-TWA: Threshold Limit Value- Time Weighted Average
vPvB: very Persistent very Bioaccumulative

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.