

MMP Industries Limited

B-24, MIDC, Hingna Road, Nagpur-440016
CIN : L32300MH1973PLC030813

Tel : (07104) 668000,
Email : sales@mmpil.com
Web : www.mmpil.com



MATERIAL SAFETY DATA SHEET

REV # : 3 (April - 2022)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Aluminium Powder Flake (Lamellar Aluminium)
Applications	Raw Material for Mining Explosives, Aluminium Phosphide, Pyrotechnic and Master Batches etc.
Supplier Name & Address	MMP INDUSTRIES LIMITED
	Regd. Office: 211 Shrimohini, 345 Kingsway, Nagpur – 440 001.
	Ph # 0712-2524645/2533585
	Corp office: B-24, MIDC,Hingna Road, Nagpur-440016 Ph #07104 668000 Email : sales@mmpil.com Website: www.mmpil.com

❖ GRADES

Powders for Explosives	Powders for Al. Phosphide	Pyro Powders	Powders for Leafing
♦ LDS	♦ Alphas – U	♦ F-136	♦ LP - 004
♦ SDS	♦ Alphas – S	♦ F-143	♦ LP - 008
		♦ F-152	♦ LP - 010
		♦ F-169	♦ LP - 012
		♦ 5-STAR	♦ LP - 020
			♦ LP - 025

For specification details : Please visit website www.mmpil.com

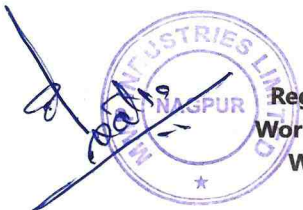
2. COMPOSITION/INFORMATION ON INGREDIENTS

NAME	CAS NO.	EINECS NO	COMPOSITION
Aluminium Powder	7429-90-5	231-072-3	100%
♦ Stearic Acid	57-11-4	200-313-4	0.6-3.0%

❖ ♦ Coated with Stearic Acid † Composition % denotes content of the additive in the final product.

3. HAZARDS IDENTIFICATION

3.1. Skin contact:	Irritation, dermatitis on prolonged contact.
3.2. Eye contact:	Irritation.
3.3. Inhalation:	NA
Explosion	
3.4. Dust cloud:	In presence of spark, dust cloud may result in explosion, as such, strictly avoid dust dispersal.
Fire	
3.5. Gas evolution:	Powders in presence of excessive moisture/ water may result in evolution of hydrogen gas, which can form explosive mixture with air & ignition source.



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Works : Village Maregaon, Post: Shahpur, Dist. Bhandara-441906, India. Tel : (07184) 282620
Works : D-15/2 & D-16, MIDC Umred, Dist. Nagpur - 441 203, India. Tel : 7066012324
Certified for: ISO 9001:2015, ISO 45001:2018, ISO 14001:2015

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4. FIRST AID MEASURES	
4.1. Skin Contact	Flush with soap & water.
4.2. Eye Contact	If overcome by vapors, remove immediately from exposure. If powder ingresses, flush eyes with ample water with eyelids held open.
4.3. Ingestion	Low toxicity risk. Do not induce vomiting.
4.4. Inhalation	Isolate the exposed person to fresh air & provide rest.
# After providing first aid treatment seeks medical attention.	
5. FIRE FIGHTING MEASURES	
Unusual Fire and Explosion Hazard	➤ DO NOT USE WATER.
	➤ Use Class "D" dry chemical extinguishing agent or other suitable extinguishing material such as dry sand.
	➤ Do not use class "A", "B" or "C" extinguishers or halogenated agents.
	➤ Aluminium particles will burn at a very high temperature as a mass of material. It shall be potentially explosive, if loosened and dispersed in air. Do not allow a dust cloud to be formed.
	➤ The material is potentially explosive when loosened and dispersed in air. Do not use vacuum cleaners.
Special Fire Fighting Procedure	➤ Fire fighters should wear self-contained breathing apparatus and protective clothing.
	➤ Gently cover the burning powder and form a ring around it with the extinguishing agents recommended.
	➤ Do not actually mix the extinguishing agents with the burning powder and do not disturb the powder until it cools to ambient temperature.
6. ACCIDENTAL RELEASE & MEASURES	
<ul style="list-style-type: none">➤ Avoid any source of ignition (open flames, heat/static discharges) during handling.➤ Do not smoke.➤ Product can release vapors that can form explosive mixtures with air. Avoid release of vapors.➤ Use protective personal protective equipment.➤ Dispose contaminated material as waste (Ref. Sr. no.13).	
7. HANDLING AND STORAGE	
<ul style="list-style-type: none">➤ Store away from open fire sources of ignition, heat & humidity.➤ Store at ambient temperature in a well-ventilated area with flame proof electrical fittings.➤ Store away from oxidizing agents/acids & alkalis or combustible materials.➤ Strictly avoid spark generating tools.➤ Keep containers tightly closed in cool & dry place.	



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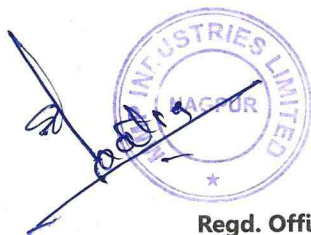
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls

Respiratory Protection	Use speciality respirators suited to filter fine dusts.
Eye protection	Use safety goggles to avoid the risk of aluminium powder contact with eye.
Skin Contact	Use protective clothings/impervious gloves. Use skin protection cream.
Clothing	Use pure cotton clothing to prevent static charge build-up.

9. PHYSICAL AND CHEMICAL PROPERTIES

Characteristics/Item	Al. Powder Flake (Lamellar Aluminium)	Stearic Acid
Atomic Weight	26.97	N/A
Physical state	Solid	Solid
Appearance	Silvery Grey powder	Free flowing Waxy Flakes
Odour	Coated powders have fatty acid odour	
pH at 27 *C	N/A	N/A
Vapour Density	Heavier than Air	N/A
Evaporation Rate	Slower than butyl acetate	N/A
Melting Point	660*C	58-62*C
Boiling Point	2467*C	361*C
Flash Point	N/A	N/A
Auto-ignition Temperature	N/A	N/A
Auto-flammability	Not Flammatory	N/A
Relative Density (gm/cc ³)	2.70	0.84
Bulk Density (gm/cc ³)	0.14 to 0.24 (As per type)	N/A
Solubility in water	Insoluble	Insoluble
Oxidizing Properties	N/A	Incompatible with oxidizers & reducing agents
Explosive Property	Product is non-hazardous however, it forms an explosive dust/air mixture	Can heat spontaneously
Explosion Limit	LEL 30 g/m ³	N/A



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10. STABILITY AND REACTIVITY	
Stability	Stable at room temperature.
Reactivity	a. Reacts with acids, alkalis and oxidizing agents.
	b. Prolonged contact with water can cause a reaction thereby releasing hydrogen gas.
11. TOXICOLOGICAL INFORMATION	
Acute Toxicity	Data not available
Chronic Toxicity	Data not available
Irritation	None
12. ECOLOGICAL INFORMATION	
Mobility/Degradability	Will convert to Aluminium Oxide during prolonged contact with water. Inform local authority in case of dispersal of powders in water course or sewer system.
Eco-toxicity	Not an eco-toxic material.
13. DISPOSAL CONSIDERATIONS	
Waste	a. Dispose in line with regional or national regulations.
	b. Avoid product entering water courses/sewer systems as there is a chance for Hydrogen gas evolution.
14. TRANSPORT INFORMATION	
Transport over sea IMDG class	4.1
Packaging group	II
Correct technical name	Aluminium Powder Flake (Lamellar Aluminium)
UN No.	1309
IIEm No.	F-G, S-G



MMP INDUSTRIES LTD.
Formerly Known as Maharashtra Metal Powders Ltd.


[Signature]
Authorised Signatory

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15. REGULATORY INFORMATION	
Label	
UN classification	4.1 Flammable solids
Risk	
Risk Phrase	10, 15
	R-10- Flammable
	R-15-Contact with water liberates extremely flammable Hydrogen gas
Safety	
Safety Phrase	7/8, 43.6
	S-7/8- Keep container tightly closed and dry
	S-43.6- In case of fire use sand NEVER use water
16. OTHER INFORMATION	
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability, whatsoever, for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.	
16 A REFERENCES	
1.	Aluminium Association's Bulletin TR.2
	"Recommendations for storage and handling of Aluminium Powders & Paste".
2.	National Fire Protection Association's NFPA -484
	"Standard for combustible metals."