

Security Data Sheet – 91/155/EU

Company name/Supplier: **LUXALLOYS**
Product Name **FERRO TITANIUM**

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Date: 01.01.2007
Finished on: 01.01.2007

1. Material Preparation and Firm Name

1.1 Substance identification:

Product name :Ferro titane

Product Type: Micro Alloying Alloys

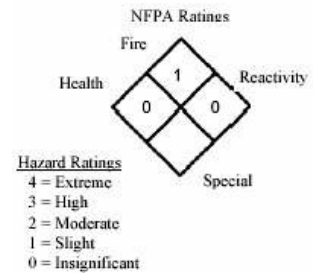
In normal use, these products are in a solid form to be added to a furnace of molten metal. Unlikely to create any health and safety problems when the material is added to a molten bath. The data included in this sheet is intended to cover all possible eventualities of both lump & powder form.

1.2 Details on the manufacturer / Supplier

Luxalloys SA
10B rue Jean Steichen
L-5868 Alzingen
Luxembourg

Contact persons:

M Konsbruck, Tel. +352 26 51 521
www.luxalloys.lu



2. Constitution / Details on the Components

Ingredients	CAS No.	Wt%
Titanium	7440-32-6	25-70
Aluminum	7429-90-5	4-8
Silicon	7440-21-3	1-3
Iron	7439-89-6	Balance

3. Possible Dangers

This section covers the hazardous nature of the material. CAS Number shown is representative for the ingredients listed. All ingredients listed may not be present in all sizes. The term 'hazardous' in 'Hazardous Materials' should be interpreted as a term required and defined in Hazards Communications Standards and does not necessarily imply the existence of any hazard. There is no health hazard from the product as supplied in the metal alloy form. Metallic dust and oxides may form on surface and become airborne during handling. Inhalation of this dust may cause irritation to the respiratory system. This product will not burn. However, moderate fire hazard in dust form.

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See above diagram

4. First Aid Steps

Inhalation	Acute effects are unlikely for this product when used normally in the form supplied. In the event of such an unlikely occurrence, remove casualty from the area of exposure. If conscious, make the casualty lie or sit down quietly. If breathing becomes rapid, place in sitting-up position and give oxygen if available. Obtain medical attention if symptoms persist. If unconscious, place casualty in the recovery position. Monitor pulse and breathing. If breathing has failed or is deemed inadequate, respiration must be assisted, preferably by mouth-to-mouth method.
Skin contact	It is always wise to minimize skin contact with industrial products. Normal hygiene rules apply.
Eye contact	If dust enters eye, wash eye thoroughly with copious quantities of running water. Obtain medical attention.
Ingestion	If normal hygiene rules are applied, any hazards associated with ingestion will be eliminated. In the unlikely event of a problem, do not induce vomiting. Give one pint/500mls of water to drink and seek immediate medical attention.

5. Fire Fighting Measures

Fire fighting measures	
Extinguishing Media	Use dry powder extinguisher
Exposure hazards	None Known
Equipment	Self-contained breathing apparatus

6. Steps on Accidental Escape

Accidental release measures	
Personal precautions	Avoid inhalation of and skin contact with any dust. Wear suitable respiratory protective equipment and gloves if exposure is considered to be likely.
Environmental precautions	Not applicable to product as supplied.
Decontamination procedures	Remove dust contamination by use of a suitable vacuum cleaner.
Emergency and first aid Procedures	Call for medical aid. Employ first aid techniques recommended. If BREATHING IS DIFFICULT give oxygen. IF NOT BREATHING, employ CPR (Cardiopulmonary Resuscitation) techniques.

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7. Handling and Storage

Fire fighting measures	
Handling precautions	Avoid contact with skin, eyes and clothing.
Storage conditions	Store in a dry location.

8. Limiting Explosion and Personal Protection Equipment

Occupational exposure limits (EC)			
Titanium & Oxides total			
inhalable dust	10		
respirable dust	5		
Aluminium & oxides			
total inhalable dust	10	-	1
respirable dust	5	-	1
Iron & Comps			
total inhalable dust	10	-	1
respirable dust	5	-	1
Total inhalable dust	10	-	-
respirable dust	5	-	-

OEL: Occupational exposure limit

TWA: Time weighted average

OES: Occupational exposure standard

ACGIH: American Conference of Governmental Industrial Hygienists

TEL: Threshold Limit Value

PEL: Permissible Exposure Limit

NIOSH: National Institute of Occupational Safety and Health

(Refer European Standard EN 149 for complete regulations)

Monitoring	Dependent upon the user's assessment of risks to health regarding the process(es) employed, it may be necessary to undertake a programme of exposure monitoring to demonstrate that the OEL is not normally exceeded.
Engineering control measures	Engineering control measures such as local exhaust ventilation (LEV) may be required to control dust and fume exposure. Such methods of control should take precedence over the use of respiratory equipment.

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Respiratory protection	If LEV is not used, a suitable dust mask fitted with an appropriate filter may be required. The type of dust mask and filter will be dependent upon dust concentrations.
Hand Protection	Use suitable gloves if skin contact with surface dust is considered likely.
Eye Protection	Not normally required. (Refer European Standard EN 166)
Skin Protection	Not normally required.

9. Physical and Chemical Properties

9.1 Appearance

Shape: blocs or powders
Colour: shiny grey and yellow
Odour: odourless

9.2 Security-relevant data

pH value: not applicable
Water solubles: Insoluble
Melting Point: 1000-1500°C
Density: relative density (raw density): 5– 7g/cm³

10. Stability and Reactivity

Conditions to avoid	The product should be kept dry to avoid the hazard of being in a wet or damp condition when added to molten aluminium.
Materials to avoid prevent	Avoid contact with water to oxidisation
Hazardous decomposition products	None Known

11. Toxicological Details

Health Effects	
Inhalation	Excessive and repeated exposure to oxide dust may cause irritation to the respiratory tract.
Ingestion.	Not considered to be likely for this product.
Skin contact	Repeated exposure to dust may cause irritation.
Eye contact	May cause irritation if dust enters the eye.
Acute toxicity	May cause irritation to the respiratory system.
Chronic toxicity	No chronic effects known.

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12. Ecological Details

The product is insoluble in water. The majority of any quantity released into water will ultimately be deposited in the sediment. Prolonged contact with soil or water following spillage or inappropriate disposal may lead to localized environmental contamination.

13. Disposal Information

Disposal of waste should be undertaken by a licensed contractor in accordance with appropriate national and local regulations.

14. Details on Transport

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
ADR/RID Class	Not regulated	Not regulated	-	-	-	-
IMDG Class	Not regulated	Not regulated	-	-	-	-
IATA-DGR Class	Not regulated	Not regulated	-	-	-	-

15. Regulations

Substance	Ferro Titanium
Safety Phrases	S 7/8 – Keep container close & dry. S 22 –Do not breathe dusts. S 23 – Do not breathe fumes. S 25 – Avoid contact with eyes. S 43 – Incase of fire don't use water use some dry extinguisher.

16. Other Information

The information contained within this data sheet is provided to assist customers in assessing the health and safety requirements associated with the use of the product. The information was obtained from sources which were believed to be reliable. The data sheet does not constitute an assessment of risk as required by Health & Safety Legislation. This data is offered in good faith as typical values. This is neither an expressed nor implied product specification. Recommended handling procedures and hygiene are believed to be accurate. However, these recommendations should be reviewed in the specific context of intended use.