MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY /UNDERTAKING

Product name: Iron silicide Other Names: Dense Medium Ferrosilicon
Product use: Metallurgical
Supplier: Imexsar Pty Ltd
Tel: +27 (0)10 597 7507 Fax: +27 (0)86 665 6843
Physical address:
Block B Unit 16, Willowbrook Office Park, Van Hoof Street,
Ruimsig, 1724, Johannesburg, South Africa
Email:technical@imexsar.com
Emergency telephone number +27 (0)79 692 8229 (not 24 hours)

2. HAZARD IDENTIFICATION

This substance is not classified as dangerous according to directive 67/548 as amended and adapted

Physical/Chemical hazards	- Not classified as dangerous
Human Health Hazards	- Not classified as dangerous
Environmental hazards	- Not classified as dangerous.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name
Ferrosilicon - reaction mass of iron and iron disilicide and iron silicide and silicon
CAS Number
12022-95-6
EC Number
912-631-7
IUPAC name
Reaction mass of 12022-95-6 and 12022-99-0 and 7439-89-6 and 7440-21-3

4. FIRST AID MEASURES

Eye contact
Immediately flood the eye with plenty of water for at least 10minutes, holding the eye open. Avoid contaminating unaffected eye. Obtain medical attention if soreness or redness persists.
Skin
Wash skin with soap and running water. Obtain medical attention if soreness or redness persists.
Inhalation
Remove from exposure. Obtain medical attention if symptoms appear.
Ingestion
Do not induce vomiting. Keep warm and at rest. Obtain medical attention if symptoms appear. Obtain medical attention if large quantities have been ingested.
Advice to physicians
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media
Not combustible. Select extinguishing media according to surrounding materials
Special exposure hazards
None.
Protection for fire-fighters No special measures required. Select protection for fire-fighters according to surrounding material.

Other hazards
Under depleted oxygen conditions, a small amount of hydrogen will evolve if product is stored wetted or in slurry form with water for prolonged periods

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear appropriate protective clothing. Avoid creating a dust cloud.
Environmental precautions
No special measures required.
Methods for clean-up
Sweep up into suitable containers for re-use, recovery or disposal. Avoid creating a dust cloud. If wet, do not re-pack with dry material and do not place in a closed or sealed container.

7. HANDLING AND STORAGE

Handling
Avoid creating dust. Avoid inhaling dust. Keep container closed when not in use.
Storage
Storage area should be dry and well ventilated. Store in original containers. Suitable storage materials: polypropylene bags.
Under depleted oxygen conditions, a small amount of hydrogen will evolve if product is stored in slurry form with water for prolonged periods. Equipment like magnetic separators, pumps or transfer pipes that may contain residual substance must be well ventilated before any maintenance work is carried out, especially maintenance involving hot work.

8. EXPOSURE CONTROLS

Occupational exposure limits
Nuisance dust – TWA (8hr) =10mg/m3
Occupational exposure controls
Use of the basic principles of Industrial Hygiene will enable this material to be used safely. Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and on the potential for exposure. If engineering controls and work practices are not effective in preventing or controlling exposure, then suitable personal equipment, which is known to perform satisfactorily, should be used.
Respiratory protection
Mask should have a filtration efficiency of 95% minimum against PM10s. FFP2 masks recommended and should be replaced regularly.
Eye protection Safety spectacles or chemical goggles
Skin protection – hands Leather or other general purpose gloves.
Skin protection - body Normal work wear. Overalls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Metallic grey fine particles
Odour: None
Melting point: 1260 degC
Flash point: Not applicable, inorganic substance
Flammability: Not flammable
Explosive properties: Not explosive
Oxidising properties: Not oxidising
Vapour pressure: Not applicable, melting point >300 degC
Relative density: 6 – 7
Granulometry: PM10 content: <3%. PM20 content: 3-10%
Water solubility: Negligible
Partition co-efficient: (octanol/water) Not applicable, inorganic substance
Other properties: magnetic susceptibility Can be magnetized
Other properties: Phosphorous controlled phosphorus below 0,15%

10. STABILITY AND REACTIVITY

Conditions to avoid
Storage under wet or damp conditions
Materials to avoid
Strong acids
Hazardous decomposition products
Stable under normal conditions. Under depleted oxygen conditions, a small amount of hydrogen will evolve if product is stored in slurry form with water for prolonged periods. If exposed to water the material can harden and cause corrosion of metals. Corrosion inhibitors can be used to minimise this effect.

11. TOXICOLOGICAL INFORMATION

Toxicokinetic, metabolism and distribution
The product is expected to be poorly absorbed.
Acute effects (acute toxicity and irritation/Corrosivity)
The product is expected to have a low order of acute toxicity by all routes of exposure. The product is not expected to be irritant to the skin. The product may cause transient eye irritation.
Sensitisation
No known reports of skin sensitisation.
Repeat dose toxicity/Carcinogenicity
No component of this product at levels greater than 0.1% is identified as a carcinogen by the International Agency for Research on Cancer (IARC) or the European Commission (EC).
Mutagenicity
No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
Reproductive toxicity
No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.
No component of this product at levels greater than 0.1% isclassified by established regulatory criteria as a teratogenic or embryotoxic.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Based on its low water solubility, this product is expected to be practically non-toxic to aquatic species.
Mobility
If released to water the product will sink slowly. The product is insoluble in water. The product is not absorbed on to soil or sediments.
Persistence and degradability
The product is inorganic and not subject to biodegradation
Bioaccumulative potential
The product is expected to have a low bioaccumulation potential

13. DISPOSAL CONSIDERATIONS

Substance disposal
Dispose of in accordance with all applicable local and national regulations. Recycling or landfill is the recommended method of disposal.
Container disposal
Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate.
Labels should not be removed from containers until they have been cleaned. Do not incinerate closed containers.
Containers containing wet or damp material should not be closed or sealed.

14. TRANSPORT INFORMATION

Regulatory information UN number Proper shipping name Class Packaging group

ADR/RID classification ----------	Not classified ----------
IMDG classification	Not classified
IATA classification	Not classified

15. REGULATORY INFORMATION

Hazard symbol: None
Indication of danger: None
Risk phrases: None
Safety phrases: None
Other
This datasheet was compiled from datasheets previously compiled in accordance to EU directives1999/45/EC, 67/548 as amended and adapted and the parts of EU regulation 1907/2006 in force at the date of issue. REACH Pre-Registration No: 05-2116391803-39-0000
US regulatory:
TSCA: Listed under CAS number 12022-95-6
RCRA: not classified as a hazardous material under RCRA or its regulations 40 CFR 261
CERLA: not classified as a hazardous material under CERLA regulations 40 CFR 302
SARA: Not an extremely hazardous material under section 302 and not a toxic chemical subject to the requirements of 313.

16. OTHER INFORMATION

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