



PARMADAR

Voluntary product information
in accordance with regulation (EG) Nr. 1907/2006 (REACH, Appendix II)

1. PRODUCT AND COMPANY DETAILS

1.1 Product identifier

Tradename: FERROSAD cast steel shot to EN ISO 11124-4

1.2 Application

Blast cleaning, deburring, surface profiling and roughening
There is no information on any uses advised against.

1.3 Manufacturer / Supplier

Company	Metalltechnik Schmidt GmbH & Co. KG
Street	Schulstraße 41
Place	D-70794 Filderstadt
Phone	+49 (0) 711 / 77 99 07 - 0
Fax	+49 (0) 711 / 77 99 07 99
Website	www.ferrosad.com

1.4 Emergency telephone number

Quality Assurance +49 (0) 711 / 77 99 07 – 24 (during office hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to European Union ((EC) regulation No. 1272/2008) the product as supplied is not classified as dangerous. The product as supplied has no harmful effects on human health and poses no issues to the environment.

2.2 Label elements

Not applicable.

2.3 Other hazards

Not known. When used in blast equipment, health risks (poisoning) from dusts and vapours can occur. These are caused by breakdown of the blasting media and material removed from the item being blasted. For this purpose, the usual precautionary measures should be taken, such as the use of suitable filter systems or the observance of the accident prevention regulations (German UVV) „Blasting Work“ (DGUV-R 100-500, Chapter 2.24) or similar. Furthermore the dust generated during blasting contains, among other things, metal dust, plastic and paint particles from the blasted parts, which can present a risk of fire and explosion. The legal limits for dusts and vapors should be observed. Additional issues can arise from inadequate shielding of the blast machines in the form of eye and skin injuries, falls through spilt material and hearing damage due to the noise from the blasting process.




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3. COMPOSITION / CHEMICAL ANALYSIS

3.1 Substances

This product is a composition of the items listed below which are not contained in a free state but in alloy form. The product contains no free components in concentrations classed as a hazardous substance according to regulation (EC) No 1272/2008.

Main ingredients	Hazard pictogram(s)	Weight-%	Hazard Statement(s)	CAS	EINECS
Iron	--	>98	--	7439-89-6	231-096-4
Carbon	--	ca. 0,10	--	7440-44-0	231-153-3
Manganese		0,80 – 1,15	H228	7439-96-5	231-105-1
Silicon	--	ca. 0,15	--	7440-21-3	231-130-8

4. FIRST AID MEASURES

4.1. Description of first aid measures

After inhalation	Ample supply of fresh air. If symptoms persist seek medical attention.
After eye contact	Flush with clean running water, do not rub. Seek medical assistance for the removal of the particles from the eye.
After skin contact	No action required.
After swallowing	Non-toxic, not relevant.

It is the responsibility of each user to take proper precautions when using the product.

4.2 Most important effects and symptoms, both acute and delayed

Not known.

4.3 Indication of any immediate medical attention and special treatment needed

None.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

As supplied the product is non-flammable. Extinguishing measures are to suit the environment.



PARMADAR

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5.2 Special hazards arising from the substance or mixture

Dust produced during blasting can cause a fire and explosion hazard. To avoid dust fires isolate from ignition sources, e.g. grinding sparks, electrostatic discharge, carelessly discarded cigarette butts, etc.

5.3 Advice for firefighters

Please note the accident prevention regulations (German UVV) "Blasting Work" (DGUV-R 100-500, Chapter 2.24) or similar. For dust filter fires special powders should be used (only with fine dust). To extinguish dry fires, water, foam, ABC powder are suitable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.
Personal protective equipment: see point 8.

6.2 Special hazards arising from the substance in case of fire

No special dangers known.

6.3 Methods for clearing up spillage

Pick up with a vacuum cleaner or magnetic cleaner (such as MTS-3000) for disposal or further use.

6.4. Reference to other sections

None.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice for safe handling	Dust from the blasting operation should be extracted directly at the point of origin. Use explosion-proof systems, equipment, extraction systems, devices, etc. Wear suitable protective clothing, gloves and eye / face protection.
Instructions for handling Big Bags	When lifting bulk bags, necessary safety measures must be observed.
Information about fire and explosion protection	As supplied, the product is not explosive; however the accumulation of fine dust from the blast operation leads to the risk of dust explosion. Avoid dust build up. Keep away from sources of ignition - No smoking.



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7.2 Conditions for safe storage, including any hazards

Store in dry place
Storage class (VCI): 13

7.3. Specific end use(s)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Measures to monitor and limit exposure in the workplace	General dust limit according to TRGS 900: Occupational exposure limits (Germany) 1,25 mg/m ³ Respirable dust 10 mg/m ³ Inhalable dust
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8.2 Limitation and monitoring of exposure

Technical protective measures and the application of suitable working procedures take precedence over the use of personal protective equipment.

Eye Protection	Tightly fitting safety goggles
Hand Protection	Not required, skin care cream is recommended
Foot Protection	Safety shoes recommended
Body Protection	Normal work clothes recommended
Breathing Protection	Dust mask of type FFP2 recommended
Ear Protection	Not relevant

General safety measures: Avoid contact with skin, eyes and mucous membrane



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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Ball shaped, solid
Colour	Silver-grey, metallic, shiny
Odour	None
Melting Point	~1500°C
Boiling Point	no data available
Flash Point	n/a
Ignition Temperature	n/a
Lower Explosive Limit	n/a
Upper Explosive Limit	n/a
Self-inflammability	n/a
Fire promoting properties	n/a
Steam Pressure at 20 °C:	no data available
pH value	non-soluble in water
Specific Weight:	7,85 g/cm ³
Bulk Weight	~ 4,5 g/cm ³ (depending on the grain size)
Solubility in water	non-soluble
Fat-solubility	n/a
Dynamic viscosity	no data available
Specific resistance	0,14 – 0,18 Ω mm ² /m
Specific low-melting	205 kJ/kg
Thermal conductivity	48 – 58 W/mK

9. PHYSICAL AND CHEMICAL PROPERTIES

10.1 Reactivity

See chapter 10.3.

10.2 Chemical stability

The product is under normal conditions chemically stable.



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10.3 Possibility of hazardous reactions

Hazardous reactions cannot be excluded if in contact with: acids, alkalis and oxidizing agents.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

No data available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The substance is not classified as toxic, neither with single or repeated exposure.

11.2 Further information

Quantitative data on the toxicity of the substance are not available. Dangerous properties cannot be ruled out, but are not expected when used properly. The usual precautionary measures when handling chemicals should be observed.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

Proper handling will not cause any environmental problems.

General note: not hazardous to water according to administrative regulations for substances hazardous to water (VwVwS).



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13. DISPOSAL CONSIDERATIONS

As supplied	Unused shot can be recycled as metal scrap.
Residual wastes	There are no uniform provisions on the disposal of residual waste in EU Member States. The German recycling law (Kreislaufwirtschaftsgesetz-KrWG) regulates the disposal or recycling of waste. Each user must obtain information about recycling or disposal from the authorities or waste disposal companies of the individual states responsible for him.
Packaging	The packaging is fully recyclable.

13. DISPOSAL CONSIDERATIONS**14.1 UN-Number**

Not dangerous goods in terms of transport regulations.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class (es)

Not applicable.

14.4 Packing Group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

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

Label	None
H-Statement(s)	H 228 (flammable substance)
Operating safety regulation	Not applicable
Hazardous incident regulation	Not applicable
Technical instructions for keeping the air clean (German TA-Luft)	5.2.1



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Storage class (VCI) 13
Water hazard class Not hazardous to water

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

15. REGULATORY INFORMATION

This product contains no asbestos.

All the above corresponds to the most up to date information at the time. The information describes the product with regard to safety-relevant data and safety requirements. They do not constitute an assurance of product characteristics within the meaning of the statutory warranty. All the above information refers to the unused product. The use of the product may result in changes in the physical-chemical properties. The above information regarding composition, hazards, first aid, fire-fighting, measures for release, handling and storage, exposure control and personal protection equipment, physical and chemical properties, stability and reactivity, toxicology, ecology, disposal, transport and regulations apply only to the unused product and are not transferable to the blasting material waste. It is the responsibility of the user to familiarize himself with this.