

Material Safety D

Ferro Cerium Edition

Identification of the Chemical:

Identification of the substance

Ferro Cerium

Trade Name:

FireSteel

2. Composition and Information on Ingredients:

Composition	%	CAS·No.	EINECS No:
Mischmetal			
Rare Earth Metal	min.77 %		
Iron	abt. 20%	7439-86-6	2310964
Magnesium	2%	7439-95-4	2311046
Rare Earth Meta!			
Distribution:			
Cerium	50%	7440-45-1	2311549
LanthanuJTI	20-25 %	7439-91-0	2310990
Neodymium	15-20 %	7440-00-8	2311093
Praseodymium	5-10 %	7440-10-0	2311203

3. Hazards Identification:

Risks of burning off fine material or explosions after raising the dust

4. First Aid Measures:

Special instructions:

Solid material has no health hazards

Inhalation:

Inhalation of powder or dust may cause irritation of respiration tract.

If symptoms of pulmonary, remove involved persons from exposure area immediately to fresh air and seek medical assistance.

Skin:

May cause irritation due to abrasive of the material.

Splashes in eyes:

May cause irritation due to abrasive of the material.

Ingestion:

No adverse effects expected under normal industrial usage.

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5. Fire Fighting Measures:

Suitable extinguishing media: Dry sand or salt (NaCl), Class D dry-powder extinguisher.
Do not use: water, CO₂-extinguisher and halogenated agents.
All exposed surfaces cover with sand or metal extinguisher-powder.
Material should not be mixed until the material has been allowed to cool!

6. Accidental Release Measures:

Remove all sources of ignition. Avoid development of dust, pick up with shovels, fill in sealed containers. Avoid contact of material with water and acids. Rubbing product with metallic objects may cause sparking of fire.

7. Handling and Storage:

Material should be stored in a clean, dry area. Finely divided particles may be burnable or explosive. Keep away from ignition sources and oxidising agents. Containers should be closed. When working with powdered material, use local explosion proof exhaust systems to keep dust away.

8. Exposure Controls / Personal Protection:

Technical measures for exposure control: not applicable

Limit values for workplace air: not applicable

Personal protective equipment:

Respiratory protection: normally not necessary, avoid inhalation of dust

Hand protection: protective gloves recommended

Eye protection: protective glasses recommended

Special instruction for protection and hygiene: not necessary

9. Physical and Chemical Properties:

Physical state:	solid cylindrical pieces
Colour:	metallic dark-grey or in different colours
Odour:	odourless
pH:	none
Information on changes in the physical state:	
Melting point:	abt. 700° C
Boiling point:	abt. 1.100° C
Flashpoint:	none 500° C
Auto flammability (solid material)	195-280° C
(fine material)	
Oxidizing properties	none
Explosive limits:	not evaluated
Vapour pressure:	not relevant
Relative density:	6,5 g/cm ³
Solubility:	insoluble
a) water solubility:	insoluble
b) fat solubility:	insoluble
Partition coefficient n-octanol/water:	N/A
Viscosity:	N/A

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10. Stability and Reactivity:

Lumpy material is stable against corrosion.

Fine material may ignite during handling.

The material forms hydrogen when in contact with water or acids.

Hazardous decomposition products: none known.

11. Toxicological Information:

Toxicological data of the metal are not known.

LD50-value of decomposition products (formation of oxides) : > 1.000 mg/kg p.o rat

(Pr, Nd) and >5.000 mg/kg p.o rat (Ce, La) ex. Toxicology and applied pharmacology, 5,750

12. Ecological Information:

The insolubility in water respectively the transformation to insoluble hydrates leads to separation at every filtration and sedimentation step.

13. Disposal Consideration:

Unused material: if possible reuse

Waste disposal method: for recycling contact supplier or manufacturer

14. Transport Information:

No dangerous good!

15. Regulatory Information:

Information on the warning label: none

R phrases: none

S phrases: none

National regulation: Other countries: observe national regulations

16. Other Information:

Material Safety Data Sheet according EEC directive 91/155/BWG