



*****Section 1 – Identification*****

Product Identifier: Ferroniobium

Chemical Family: Alloy

Recommended Use: Source of niobium (alloying element) to strengthen high-strength-low-alloy steels

Restriction on Use:

Manufacturer Information

The David J. Joseph Company
300 Pike Street
Cincinnati, OH 45202

Non-Emergency Contact: Safety Department
Non-Emergency Phone: 513-419-6200
Emergency Contact: DJJ
Emergency Phone: 513-562-1699

*****Section 2 – Hazard(s) Identification**

Classification

Ferro niobium is not classified as hazardous/dangerous according to CLP/GHS and DSD/DPD criteria.

GHS Label Elements

Symbol(s)

N/A

Signal Word

N/A

Hazards Statement(s)

N/A

Precautionary Statements

None

*****Section 3 – Composition / Information on Ingredients*****

CAS	Component	Percent
7440-03-1	Niobium	65%
7439-89-6	Iron	30%
7440-21-3	Silicon	2.5%
7429-90-5	Aluminum	1.0%

*****Section 4 – First Aid Measures*******Inhalation**

Obtain first aid or medical assistance if needed.

Skin Contact

Wash contacted skin with water. Obtain first aid or medical assistance if needed.

Eye Contact

Flush with large amounts of water. Obtain first aid or medical assistance if needed.

Ingestion

Obtain first aid or medical assistance if needed.

*****Section 5 – Fire Fighting Measures*******Extinguishing Media**

Dry powder, sand or isolate fire and allow it to burn out in case of fire with ultra-fine dust.

Unsuitable Extinguishing Media

None identified.

Specific Hazards Arising from the Chemical

None identified.

Special Protective Equipment and Precautions for Firefighters

None identified.

*****Section 6 – Accidental Release Measures*******Personal Precautions, Protective Equipment and Emergency Procedures**

PFF1 protector may be required when handling fine-particles. Wear leather gloves and safety glasses to prevent metal cuts.

Methods and Materials for Containment and Cleaning Up

Normal clean up procedures.

*****Section 7 – Handling and Storage*******Precautions for Safe Handling**

Normal procedures for solids storage and handling. Wear safety glasses. Avoid dust generation. Wear leather gloves to prevent metal cuts.

Conditions for Safe Storage

Do not store close to acids and bases.

Incompatibilities

Acids and bases.

*****Section 8 – Exposure Controls / Personal Protection*******Exposure Limits**

Based on the preparation properties and exposure scenarios, no DNELs need to be derived and no PNECs are required.

**Appropriate Engineering controls**

Ensure ventilation in areas where dust generation is possible.

Individual Protection Measures**Eyes/Face Protection**

Safety glasses are recommended when there is a risk of eye injury.

Skin Protection

Leather gloves are recommended to avoid cuts and skin injuries.

Respiration

PFF 1 protector must be used when handling fine particles.

*****Section 9 – Physical and Chemical Properties*****

Appearance: Solid/silver grey

Physical state: Solid

Melting/freezing Point: 1530 C

Flash Point: N/A

UFL: N/A

Vapor Pressure: N/A

Specific Gravity: N/A

Auto Ignition: Shows no auto flammability

pH: N/A

Boiling Point: N/A

OSHA Flammability Class: non-flammable

LFL: N/A

Vapor Density: N/A

Solubility (H20): 0.001 mg/L at 20 C

*****Section 10 – Chemical Stability & Reactivity*******Reactivity**

Reacts with acids and bases.

Chemical Stability

Stable

Possibility of Hazardous Reaction

Prevent reaction with acids and bases.

Conditions to Avoid

Excessive ultra-fine dust exposed in air and contact with acids and bases.

Incompatible Materials

Acids and bases.

Hazardous Decomposition Products

Hydrogen may evolve with acids and bases.

*****Section 11 – Toxicological Information*******Toxicity**

Based on test results, Ferro Niobium is considered as a non-toxic material via any tested route (oral, dermal or inhalation).

Acute Oral Toxicity

OECD 423: LD50 > 5,000 mg/kg bw

Acute Dermal Toxicity

OECD 402: LD50 > 2,000 mg/kg bw

**Acute Inhalation Toxicity**

OECD 403: LC50 > 2,000 mg/kg bw

*****Section 12 – Ecological Information*******Ecotoxicity**

Ferro Niobium is judged not to be toxic to the environment. Due to its insolubility in water, the alloy is considered not to cause any toxic effect on aquatic species and is not bioavailable. Thus, there is no potential for bioaccumulation of FeNb.

*****Section 13 – Disposal Considerations*******Disposal Methods**

According to all solid waste labeling, shipping and disposal regulations, there are no special considerations about FeNb disposal.

*****Section 14 – Transportation Information*******US DOT Information**

Ferro Niobium is non-hazardous. There are no transportation regulations.

*****Section 15 – Regulatory Information*******U.S. Federal Regulations**

Ferro Niobium is non-hazardous. There are no further regulations or classifications.

*****Section 16 – Other Information*****

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

The data on this sheet applies only to products sold by corporate subsidiaries of The David J. Joseph Company and may not apply to products sold by others.