

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

FINOFILL Filling Granulate

REF 21507

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Lead-free. For the fixation of models during deep-drawing.

1.3. Details of the supplier of the safety data sheet

Company name:	FINO GmbH	
Street:	Mangelsfeld 18	
Place:	D-97708 Bad Bocklet	
Telephone:	+49-97 08-90 94 20	Telefax: +49-97 08-90 94 21
e-mail:	info@fino.com	Internet: www.fino.com
Contact person:	Joachim Mahlmeister	Telephone: +49-97 08-90 94 20
e-mail:	info@fino.com	
Responsible Department:	This number can only be reached during our office hours, Monday to Friday from 8 a.m. to 5 p.m.	

<u>1.4. Emergency telephone number:</u>	+49-89-1 92 40
	POISON CENTER München
	24 hour(s) 7 day(s)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

There is no requirement for the product to be specially labelled according to EC directives or the corresponding national laws.

2.2. Label elements**GB CLP Regulation****Precautionary statements**

P260 Do not breathe dust.

Additional advice on labelling

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.3. Other hazards

Observe common precautions for the handling of powdery materials. Results of PBT and vPvB assessment not applicable.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**Physical state solid Ferro metallic granulate grained from liquid melted iron and refined in different grain sizes.
Steel wire grain.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7440-47-3	Chromium			18-20 %
	231-157-5			
7440-02-0	nickel			8-10,5 %
	231-111-4	028-002-00-7		
	Carc. 2, Skin Sens. 1, STOT RE 1; H351 H317 H372			
7440-21-3	Silicon			2 %
	231-130-8			
	Flam. Sol. 2, Eye Irrit. 2; H228 H319			
7439-96-5	Manganese			1 %
	231-105-1			
	Flam. Sol. 2, Eye Irrit. 2; H228 H319			
7440-44-0	Carbon			< 0,2 %
	231-153-3			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7440-02-0	231-111-4	nickel	8-10,5 %
		oral: LD50 = > 9000 mg/kg	
7440-21-3	231-130-8	Silicon	2 %
		oral: LD50 = 3160 mg/kg	
7439-96-5	231-105-1	Manganese	1 %
		oral: LD50 = 9000 mg/kg	

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

Possibility of injuries only in connection with application in blasting units and devices. Observe operating instructions of the unit e.g. occupational regulations!

After inhalation

Provide fresh air.
Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.
Seek medical attention if problems persist.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

not relevant

4.2. Most important symptoms and effects, both acute and delayed

ferrous metal dust and particles Irritant

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water, Extinguishing powder, Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

in delivery state not flammable

In case of fire may be liberated: Metal oxide smoke, toxic

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Avoid: Inhalation of dust/particles

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Wear suitable protective clothing.

Avoid contact with eyes.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up**Other information**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Wear suitable protective clothing.

Clear contaminated areas thoroughly.

Dust should be exhausted directly at the point of origin.

ferrous metal dust and particles Dust should be exhausted directly at the point of origin.

Advice on general occupational hygiene

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and after work.

When using do not eat or drink.

Avoid contact with eyes.

Provide eye shower and label its location conspicuously

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Store in a dry place.

Hints on joint storage

No special requirements.

Further information on storage conditions

No special precautionary measures.

Storage class

Betriebssicherheitsverordnung (BetrSichV) ---

7.3. Specific end use(s)

Lead-free. For the fixation of models during deep-drawing.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7440-47-3	Chromium	-	0.5		TWA (8 h)	WEL
7440-44-0	Graphite, inhalable dust	-	10		TWA (8 h)	WEL
7439-96-5	Manganese (inhalable fraction)	-	0.2		TWA (8 h)	WEL
-	Nickel and its inorganic compounds (except nickel tetracarbonyl): nickel and water-insoluble nickel compounds (as Ni)	-	0.5		TWA (8 h)	WEL
7440-21-3	Silicon, inhalable dust	-	10		TWA (8 h)	WEL

Additional advice on limit values

Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2. Exposure controls

Appropriate engineering controls

Pertinent directives for the operation of blasting units must be observed.
Use personal protection equipment.

Individual protection measures, such as personal protective equipment
Eye/face protection

Wear eye/face protection.

Hand protection

Hand protection is not required.

Skin protection

Wear suitable protective clothing.

Respiratory protection

Not applicable, e.g. according to the operation instructions of the blasting unit. It is nevertheless recommended to wear FFP2 masks voluntarily.

Environmental exposure controls

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state: solid: granulate
Colour: metallic
Odour: odourless

Test method
Changes in the physical state

Melting point/freezing point: ~ 1.345 - 1.530 °C

Boiling point or initial boiling point and boiling range:

Not known.

Softening point:

not applicable

Flash point:

Not known.

Flammability

Solid/liquid:

not determined

Explosive properties

not explosive.

Lower explosion limits:

Upper explosion limits:

Auto-ignition temperature:

400 °C DIN 51794

Self-ignition temperature

Solid:

Product is not selfigniting.

Decomposition temperature:

not determined

pH-Value:

7-9

Viscosity / dynamic:

Water solubility:

practically insoluble

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

Not known.

Density (at 20 °C):

7,85 g/cm³

Bulk density:

Not known.

Relative vapour density:

not determined

9.2. Other information
Information with regard to physical hazard classes

Sustaining combustion:

No data available

Oxidizing properties

Not oxidising.

Other safety characteristics

Solvent content:

Organic solvents: -, - %

Maximum VOC content: - % not determined

Solid content:

Not known. %

Evaporation rate:

not determined

Further Information
SECTION 10: Stability and reactivity
10.1. Reactivity

Whether additional risks may arise from the material through dangerous reactions or decomposition processes has to be tested.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Whether additional risks may arise from the material through dangerous reactions or decomposition processes has to be tested.

10.4. Conditions to avoid

Humidity, Water

10.5. Incompatible materials

alkalines

10.6. Hazardous decomposition products

No information.

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in GB CLP Regulation
Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7440-02-0	nickel				
	oral	LD50 > 9000 mg/kg			
7440-21-3	Silicon				
	oral	LD50 3160 mg/kg	Ratte:		
7439-96-5	Manganese				
	oral	LD50 9000 mg/kg	Ratte	ECHA	

Irritation and corrosivity

Based on available data, the classification criteria are not met.
Inhalation of dust may cause irritation of the respiratory system.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

If used pertinently toxic effect are not to expect.

Practical experience

Hazardous properties for unused blasting material are not known.

11.2. Information on other hazards
Other information

MAK-values for lung-affecting fine dust must not be exceeded for worn blasting materials, which were contaminated with hazardous substances during blasting processes. This has to be proofed by the operator of the blasting installation.

SECTION 12: Ecological information
12.1. Toxicity

Unused as well as used blasting material should not be spilled on soil or other surfaces.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7440-47-3	Chromium					
	Acute fish toxicity	LC50 mg/l	40,5	96 h		
	Acute algae toxicity	ErC50 mg/l	8,75	72 h		
7440-02-0	nickel					
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Danio rerio	
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	

12.2. Persistence and degradability

No classification known.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

Respective data are not available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Avoid release to the environment. Refer to special instructions/Safety data sheets.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Unused new blasting material can be recycled as metal scrap.

Used blasting material must be examined for pollutants from the blasting process according to the Ordinance on Hazardous Materials.

List of Wastes Code - residues/unused products

170405 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES); metals (including their alloys); iron and steel

Contaminated packaging

Non-contaminated packages may be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 0000

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 0000

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)
14.1. UN number or ID number:

UN 0000

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number or ID number:

UN 0000

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

14.6. Special precautions for user

No special measures are necessary.

14.7. Maritime transport in bulk according to IMO instruments

No special precautionary measures.

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 27, Entry 40, Entry 65, Entry 75

2004/42/EC (VOC):

no classification

Information according to 2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

Additional information:

0

Additional information

According to EC directives or the corresponding national regulations the product does not have to be labelled.

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

National regulatory information

Employment restrictions:

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

- - non-hazardous to water

Additional information

No further data.

Betriebssicherheitsverordnung (BetrSichV) ---

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information
Changes

* Data changed compared with the previous version.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
 Carc. 2: Carcinogenicity, Hazard Category 2

Relevant H and EUH statements (number and full text)

H228 Flammable solid.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H351 Suspected of causing cancer.
 H372 Causes damage to organs through prolonged or repeated exposure.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Refined steel	PW	0	14, 15	0	4	13	2	16

LCS: Life cycle stages

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

TF: Technical functions

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)