

Safety Data Sheet Steel Abrasive, Shot & Grit

Trade Name: Steel Shot, Steel Grit,
Grit Grades: G120, G80, G50, G40, G25, G18, G16, G14, G12
Shot Grades: S070, S110, S170, S230, S280, S330, S390, S460, S550, S660, S780
Original Issue Date: September 2012
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SECTION 1:

Identification of the substance/mixture and of the company/undertaking

1.1 Product Description: Steel Shot and Steel Grit
Product Identifier: SS and SGH (Hard), SGL (medium)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use: Blast cleaning abrasive, sawing of granite and similar hard stone using a frame saw, ballast.

The substance does not meet the criteria for classification as dangerous according to EC1272/2008. Therefore exposure assessment, risk characterisation and exposure scenarios for the identified uses through the life cycle is not required (REACH Regulations 1907/006, Annex 1 and ECHA Guidance on information requirements and chemical safety assessment part A)

1.3 Details of supplier of the safety data sheet

Hodge Clemco Ltd, Orgreave Drive, Sheffield S13 9NR, U.K.

Email address of person: sales@hodgeclemco.co.uk (Steve Robertson)

Emergency telephone number of the supplier

Telephone number: +44(0)114 254 8811
Hours of operation: Mon – Fri 08.30 – 1700

SECTION 2: Hazards Identification

2.1 Classification of substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (which replaces Directive 67/548/EC (DSD))

Classification: Not classified. Steel shot and steel grit does not meet the criteria for classification in accordance with the regulations EC1272/2008. No special conditions are therefore needed. Risk management measures due to the potential occurrence of hazardous dusts during use as an abrasive may be needed.

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 (which replaces Directive 67/548/EC (DSD))
None

2.3 Other hazards

The substance does not meet the criteria for a PBT or vPvB substance

2.3.1 Dust. Use of this material may generate dust so risk management measures may be needed. Blasting operatives should wear a CE marked or HSE approved blasting helmet. Ancillary workers should use a P2 dust respirator and safety goggles. Operatives should always wear appropriate gauntlets. Operatives should wear heavy-duty coveralls or a purpose designed blasters' suit.

2.3.2 Fire – explosion. Particles liable to produce a fire hazard are the following:

- Metal dust
- Plastic dust
- Dust produced when blasting metals coated with paint, rubber, etc.

2.3.3 Other risks:

- The projection of abrasives exposes the operator to possible skin and eye lesions if no protection is worn.
- Noise
- Risk of slips/falls due to the presence of abrasive on the floor

SECTION 3: Composition/information on ingredients

Steel shot and steel grit is an induction furnace melted cast steel. Substances with a concentration higher than 0.1% w/w are listed below:

Substance	Chemical Formula	CAS No	EC No	Typical Content
Iron	Fe	7439-89-6	231-096-4	95-97%
Carbon	C	7440-44-0	231-153-3	0.85-1.2%
Manganese	Mn	7439-96-5	231-105-1	0.35-1.2%
Silicon	Si	7440-21-3	231-130-8	0.4-1.5%
Silicium	Si	7440-21-3	231-130-8	≥ 0.4%
Nickel	Ni	7440-02-0	231-111-4	<0.2%
Copper	Cu	7440-50-8	231-159-6	<0.2%

All the chemical elements in chilled iron grit come in an alloyed form and not in a free form

SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

<i>Inhalation:</i>	Remove to fresh air. Get medical attention if symptoms occur.
<i>Skin:</i>	Substance is not a skin irritant and not a skin sensitiser. Wash with water and soap. Remove contaminated clothing and footwear, Get medical advice if symptoms occur.
<i>Eye:</i>	Substance is not an eye irritant. Use general measures if eye irritations occur. Do not rub eyes. Immediately wash with plenty of water. Check for and remove any contact lenses. If irritation persists, get medical attention.
<i>Ingestion:</i>	No danger known, wash mouth out if appropriate. Do not induce vomiting. Give water to drink.
<i>Advice to physician:</i>	No specific advice. Treat according to symptoms present.

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

The product may cause temporary mechanical irritation to the eyes, nose, throat and lungs.

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

Notes for the doctor. Treat symptomatically.

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media

The product is non-combustible. Use an extinguishing agent appropriate to the surrounding materials.

In the event of Class A fires (packaging); ABC powder, water, foam

In the event of Class D fires (metal fire); powders, CO₂

Avoid scattering fine particles close to an ignition source.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: None

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid breathing dust. Use appropriate personal protective equipment.

Vacuum or brush spilled material from floor to reduce the risk of falls/slips.

6.2 Environmental precautions

Make sure spills can be contained. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and clean-up

Ventilate the area thoroughly. Vacuum or sweep up material and place in a suitable container for re-cycling or disposal.

6.4 References to other sections

Section 1 for emergency contact information

Section 8 for information on personal protective equipment

Section 13 for Waste Disposal

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Chilled iron grit is not classified and no protective measures are needed for safe handling. Prevent formation of dust. Use only in well ventilated areas. Wear personal protective clothing. Wash hands and face before breaks and after work.

7.2 Conditions for safe storage including any incompatibilities

Keep dry. No other special requirements.

7.3 Specific end uses

Abrasive blast cleaning may fracture the product and generate dust. Ventilate work area in vicinity of operator.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters of relevance to industrial settings (occurrence of dusts, mists and fumes)

The user must know the exact nature of the dust produced during the industrial process for which the abrasive is used, and must take the necessary measures to protect his workers. A qualitative analysis is necessary for blasted parts that may contain any substance with an exposure limit. The concentrations of the substances contained in the abrasives that are subject to exposure limits (in particular average exposure limits under the relevant receiving country's environmental regulations).

8.2 Exposure controls for industrial settings

8.2.1. Appropriate Engineering Controls

Use process enclosures, local exhaust ventilation or other engineering controls to keep exposure to below any recommended or statutory limits. For storage and handling, general ventilation is adequate.

8.2.2 Personal Protective Equipment

Blasting operatives should wear a CE marked or HSE approved blasting helmet. Ancillary workers should use a P2 dust respirator and safety goggles. Operatives should always wear appropriate gauntlets. Operatives should wear heavy-duty coveralls or a purpose designed blasters' suit. Heavy duty boots with toe protection should be worn.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<i>Appearance:</i>	Solid, angular particles
<i>Colour;</i>	Grey
<i>Odour</i>	None
<i>Odour threshold:</i>	Not applicable
<i>pH:</i>	Not applicable
<i>Melting point:</i>	1500°C
<i>Flash Point:</i>	Not applicable
<i>Upper/lower flammability or explosive limits</i>	Not applicable
<i>Relative Density (ref water at 20°C)</i>	7kgs/dm ³
<i>Bulk density:</i>	3.5 – 5 kgs/dm ³
<i>Solubility:</i>	Insoluble in water
<i>Explosive properties:</i>	Non explosive
<i>Hardness:</i>	varies from minimum 41 Rockwell C

9.2 Other information

Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

Not applicable. See Section 9.

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

Iron oxide dust mixed with some metal dusts can produce an aluminothermic reaction.

10.4 Conditions to avoid

Avoid dust formations and contact with moisture where some aggregation could occur

10.5 Incompatible materials

Water

10.6 Hazardous decomposition products

The material does not decompose.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Known severe toxicity: None
Known local effects: None

SECTION 12 Ecological information

Lixiviation tests have been carried out on abrasive samples. The analytical results recorded do not show the presence of specific pollutants or toxins.

SECTION 13: Disposal considerations

The abrasive must be disposed of in accordance with national legislation (See Section 16) and local regulations. The material as supplied is classed as a non-hazardous inert solid waste. Spent abrasive used as a blasting medium must be disposed of under classification 12 01 16 (waste blasting material containing dangerous substances) or 12 01 17 (waste blasting material other than those mentioned in 12 01 16). The waste producer must determine if hazardous substances in the coating being removed are likely to cause the waste to be hazardous.

SECTION 14: Transport information

International regulations (ADR, IMDG, OACI): not concerned
Transport outside storage areas: protect against moisture
Weight: for pallets and drums: 750-1500 kg
For big bags: 1000, 1500 or 2000 kg.

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

The product known as chilled iron grit is subject to national and European laws in effect.

- According to existing European Regulations No 1999/45/CE and No 67/548/CEE, ferrous abrasives are not considered as dangerous preparations.
- According to European Regulation No 1907/2006/CE (REACH), ferrous abrasives are considered as articles.

The substances contained in ferrous abrasive (in the form of alloys), are not intended to be released intentionally under normal or reasonably foreseeable conditions of use.

In accordance with articles 3.3; 7.1; 7.2; 7.3; 33; 57; 59 and all related documents to the present regulation, and in order to exclude all possibility of human and environmental exposure to these substances under normal or reasonably foreseeable conditions of use including waste elimination, this safety data sheet is written up containing appropriate instructions. Consequently Hodge

Clemco Ltd considers that the substances contained in the ferrous abrasives are not subject to registration according to the existing REACH regulations.

SECTION 16: Other information

The information contained in this file is based on our level of knowledge to date. Consequently, any person or organisation wishing to make any comments should inform us. Moreover, the information provided is not exhaustive. The user must therefore be fully acquainted.

We would also like to point out that Hodge Clemco Ltd provides training courses for users. Please consult the website www.hodgeclemco.co.uk for further information.