

# Metal Powders - Coarse Iron

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

<b>Product Name:</b>	Metal Powders - Coarse Iron
<b>Chemical Name:</b>	
<b>Supplier:</b>	Jacobson Chemicals Ltd Unit 4 Newman Lane Industrial Estate Alton Hants GU34 2QR
<b>Telephone:</b>	01420 86934
<b>Fax:</b>	01420 549574
<b>E-mail:</b>	sales@jacobsonchemicals.co.uk

## 2. COMPOSITION

<b>Substance:</b>	Ferrous particulate material which may be labeled 'High Carbon Steel' or 'Chilled Iron Abrasive'.
<b>Substance Name:</b>	-
<b>EC Index No:</b>	-
<b>CAS Number:</b>	-
<b>EEC Number:</b>	-

<u>Constituents</u>	<u>Range</u>	<u>Haz Synt</u>	<u>Risk</u>
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The materials are essentially an alloy of iron with varying small amounts of alloying elements (e.g. carbon, manganese, silicon).

## 3. HAZARD IDENTIFICATION

The materials as supplied are non-hazardous but the products generated by blast cleaning or surface preparation using ferrous abrasives may consist of dusts which may be toxic, carcinogenic, or in some other way hazardous. Users of ferrous abrasives are, therefore, reminded of their duties under the Control of Substances Hazardous to Health Regulations "to make a suitable and sufficient assessment" of the risks of using the materials in the equipment and under the conditions which appertain in their works. Such an analysis may also be required if the material is used for non-blasting applications.

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## 4. FIRST AID MEASURES

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<b>Immediate medical attention:</b>	Yes
<b>Professional assistance from physician required?</b>	Yes
<b>Inhalation:</b>	The materials are too coarse to be inhaled but dusts produced by the use of the material are respirable and could cause irreversible lung damage.
<b>Skin Contact:</b>	Wash with soap and water. If any symptoms persist seek medical advice.
<b>Eye Contact:</b>	Wash out with copious quantities of clean, cold water, gently prising open the eyelids to ensure efficient washing. If irritation persists, seek medical attention.
<b>Ingestion:</b>	The material is non-toxic but if any material is taken in the mouth, wash out with water, do not swallow.

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## 5. FIRE-FIGHTING MEASURES

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The materials themselves are non-flammable but the fine metallic dust produced as a result of their breakdown or removed from metallic components during cleaning or surface treatment can present both fire and explosion hazards. Fires should be extinguished using dry sand or dry chemical extinguishers.

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions:</b>	Wearing suitable dust nuisance respiratory protection may be advisable
<b>Methods of Cleaning:</b>	Clean up spillage by sweeping or vacuuming, taking care not to generate dust. Place in labeled closed containers for re-use or disposal through an authorized route.

Information contained in this document is the result of careful tests carried out objectively. It has been produced to aid the Buyer, but without implying any commitment on our part. The Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended purpose. Since we cannot control the application, process, or use of these products, we cannot accept responsibility therefore.

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## 7. HANDLING & STORAGE

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<b>Handling:</b>	Material is supplied in packs varying in weight from 25kgs to 2000kgs, proper training in Manual Handling techniques and Mechanical Handling systems is advisable. Use local exhaust ventilation and filtration plant to control dusts, operatives should wear respiratory protection when removing collected dust from LEV equipment or when replacing bags or repairing dust contaminated items of plant, see note on PPE below.
<b>Storage:</b>	When material is stored in racks or stacked, care should be taken to ensure stability. To preserve quality store under dry conditions, the material will oxidize in the presence of high humidity or damp conditions.

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## 8. EXPOSURE CONTROLS

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<b>Take measures to prevent:</b>	Inhalation of dust.
<b>Exposure control limits, and source:</b>	In most cases the key to the restriction of exposure is the control of dust. Suitable precautions are set out in HSE Guidance Note EH.44 Dust - General Principles of Protection. No Occupational Exposure Standards (OES) exist for iron or steel (ferrous metals) but the dust generated as Total Inhalable has an OES of 10 mg/m <sup>3</sup> 8hr Time Weighted Average. (TWA). Total Respirable dust has an OES of 4mg/m <sup>3</sup> 8hr TWA.
<b>Industrial Hygiene:</b>	A good standard of industrial hygiene should be observed. To prevent ingestion, personnel should be instructed to wash before consuming food, consumption of food and smoking should be prohibited in areas where material is stored or handled. Overalls should be provided which are frequently laundered, alternatively, disposable overalls should be used. After finishing work, personnel should take a shower.
<b>Personal Protective Equipment:</b>	Suitable gloves and goggles should be used to protect the eyes and skin together with dust masks to prevent inhalation of dust in areas where dust cannot be adequately controlled by local exhaust ventilation plant or when cleaning, servicing or maintaining LEV and dust collection equipment. It is advised that all operations involving handling of the material, abraded objects or the resultant products of the utilization of the material require the wearing of suitable hand protection.

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## 9. PHYSICAL & CHEMICAL PROPERTIES

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<b>Appearance:</b>	Metallic, particulate, free flowing
<b>Odour:</b>	No odour or taste.
<b>Colour:</b>	Grey
<b>Flash Point:</b>	Non flammable
<b>Boiling Point:</b>	3,000°C approx.
<b>Melting Point:</b>	1,300/1,500°C depending on composition.
<b>Bulk Density:</b>	4,500Kg/Cu.M.
<b>Vapour Pressure:</b>	Solid
<b>Solubility:</b>	Insoluble in water but will corrode (rust).
<b>PH:</b>	Insoluble in water
<b>Ignition Temperature:</b>	Non flammable *
<b>Explosion Limits:</b>	Non flammable *
<b>Other Information:</b>	See notes on flammability of dusts produced in use.

- \* Finely divided particles do not behave in the same manner as larger masses so it should be assumed that ferrous material of particle sizes less than 0.5mm can engage in exothermic oxidation.

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## 10. STABILITY & REACTIVITY

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For all practical purposes the material can be considered to be inert but dusts produced by their use can be extremely reactive and should not be mixed with any other materials unless there is evidence of their compatibility.

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## 11. TOXICOLOGICAL INFORMATION

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There are no reported acute toxicological effects of the material but dusts produced by their breakdown in use will be an irritant to lung tissue and will contain material characteristic of the materials being abraded and could be extremely toxic or carcinogenic.

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## 12. ECOLOGICAL INFORMATION

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<b>Possible effects:</b>	In the quantities usually supplied the materials are unlikely to cause environmental damage if handled, used and disposed of in the approved manner. However in large concentrations it may have an effect of ecotoxicity in aquatic organisms, plants and terrestrial animals.
<b>Behaviour:</b>	As above
<b>Environmental fate:</b>	As above

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## 13. DISPOSAL CONSIDERATIONS

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**Likely residues / waste products:**  
**Safe handling of and residues/waste products:**

The material can be disposed of as inert waste in accordance with the Environment Protection Act 1990, Waste Management, The Duty of Care, Code of Practice. During disposal it should be damped to prevent dust dispersal and, if disposed of as land fill it should be immediately covered.

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## 14. TRANSPORT INFORMATION

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**Special carriage precautions in carriage:**

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**Classification data:**

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**UN Number:**

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**Proper Shipping Name:**

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**IMO - Sea:**

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**ICAO - Air:**

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**ADR - Road:**

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**Transport Category:**

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**Limited Quantity Size:**

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**Additional Data:**

The material is not listed in the Chemicals (Hazard Information and Packaging) Regulations - 1993 Approved Carriage List as hazardous for transportation by road.

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## 15. REGULATORY INFORMATION

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**Supply label information:**

None

**Hazard Symbol:**

N/a

**Risk Phrases:**

N/a

**Safety Phrases:**

N/a

**Worker Exposure Limits:**

UK, EH.40/99 does not give any Occupational Exposure Standards for iron or steel (ferrous metals). (Refer to Exposure Control above). In use the dusts will be characteristic of the materials being abraded and this should be the guide for assessing and assigning Worker Exposure Limits.

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**16. OTHER INFORMATION**

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- a) **Training needs:** For further information contact our office.
- b) **Recommended uses and restrictions:**
- c) **Further references:**
- d) **Key data sources:** Manufacturers Data  
Data Sheets Directive (91/155/EEC) amended (93/11/EC) Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 Chip 2. Health and Safety at Work Act 1974. HSWA. Article 27 Dangerous Substances Directive (67/548/EEC) 7<sup>th</sup> amendment (92/32/EEC). Article 10 Dangerous Preparations Directive (88/379/EEC).

The data contained in this Safety Data Sheet has been supplied as required, by the Chemicals (Hazard Identification and Packaging) Regulations 1994, as amended, for the purposes of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided.

Please ensure that it is passed to the appropriate person in your company, who is capable of acting on the information.

**NOTE:**

This data sheet does not constitute a user's assessment of workplace risk as required by HSW Act, COSHH, Management of Health and Safety at Work regulations, or other Health & Safety at Work regulations.