



Iron Oxide System T

SD126

1. Identification of the Substance and company

Iron Oxide System T

1.2 Details of supplier

Company: Roy Hatfield Ltd, Fullerton Road, Rotherham, South Yorkshire, S60 1DH.

Telephone: +44 (0) 1709 820855

2. Composition

By-products arising from various gas cleaning processes associated with steelmaking are mixed, dewatered and graded to produce an iron oxide based mineral product. The physical form is a fine powder which, being damp, balls together to give a granular appearance.

Typical composition:

Substance name	CAS no	EINECS no	Amount present %	Classification of pure compound
Iron (as oxides) Iron (III) oxide Iron (II) oxide Iron (II/III) oxide	1309-37-1 1345-25-1 1317-69-1	215-168-2 215-721-8 215-277-5	65 - 80	
Calcium Dihydroxide (measured as oxide)	1305-62-0	215-137-3	5 . 10	CR34*
Silica (silicon dioxide)	7631-86-9	231-545-9	2 - 5	
Zinc oxide	1314-13-2	215-222-5	0.5 - 2.5	N R50/53*

* listed on Annex 1 to Directive 67/548/EEC

* self classified

3. Hazard Identification 10.02.13

Granular insoluble particulate dust, irritating to eyes, respiratory system and skin (Xi R36/37/38).

Harmful to aquatic organisms, may cause long term adverse effects in the aqueous environment (R52/53) due to the amount of zinc oxide present.

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4. First Aid Measures

- Skin contact :** Remove contaminated clothing and wash skin thoroughly with running water. Seek medical advice.
- Eye contact :** Wash the eye immediately with running water for at least ten minutes. Seek medical advice.
- Ingestion :** Rinse mouth, but give nothing to drink. Seek medical advice. Do not attempt to induce vomiting.
- Inhalation :** Remove to fresh air.
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5. Fire Fighting Measures

Although ferrous oxide is combustible under specific conditions, yielding ferric oxide, the other components are non-combustible.

In case of fire, use dry powder, foam or water extinguishers.

6. Accidental Release Measure

In the event of accidental contamination, immediately remove all contaminated clothing. Wear chemical resistant clothing, gloves and rubber boots when dealing with the accident.

Shovel up spills and place in a labeled, sealable container for subsequent safe disposal.

Significant spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environment Agency.

7. Handling and Storage

Handling

Suitable skin and eye protection should be worn to prevent contact. Adequate ventilation should be provided.

Storage

Keep in clearly labeled containers.

8. Exposure Controls/Personal Protection

Suitable protective clothing and eye protection should be worn to prevent skin and eye contact from the dust. Wear goggles/face mask and impervious gloves if possible.

To ensure the Workplace Exposure Limits are not exceeded when dust is generated, provide adequate ventilation. If exposure may exceed these limits, suitable and approved respiratory protective equipment should be provided for use by those at risk from inhalation of dust. Disposable respirators conforming to EN149 FFP3 may be used. Direction for use must be followed and wearers must have been face fit tested.

Current workplace exposure limits (EH40/2005 and 2006 and 2007 amendments) are given as

	Reference Period 8 Hour TWA	Reference Period (15 Min STEL)
Total dust		
Inhalable	10mg/m ³	
Respirable	4mg/m ³	
Calcium hydroxide	5mg/m ³	
Iron oxide fume	5mg/m ³	10mg/m ³
Amorphous silica		
Inhalable dust	6mg/m ³	
Respirable dust	2mg/m ³	

TWA Time Weighted Average

9. Physical and Chemical Properties

Insoluble particulate dust. Melting point for most components is very high (>1300°C).

Flash point >100°C.

Largely insoluble in water and organic solvents.

pH of a 1:1 mixture with water is 8.8

10. Stability and Reactivity

Stable.

Preparation will not polymerise

11. Toxicological information

Direct skin/eye contact of dust may produce signs of irritation due to the calcium hydroxide content.

None of the individual components are toxic.

Not expected to be a sensitiser.

Siderosis (a form of pneumoconiosis caused by the inhalation of iron compounds) may occur as a result of inhaling this dust frequently, at high concentrations, and over a long period of time.

12. Ecological Information

Zinc oxide is considered to be very toxic to aquatic organisms, and may cause long term adverse effects in the aquatic environment.

13. Disposal Considerations

When possible, arrange return to production plant. Otherwise disposal via correctly licensed incinerator. Treat as hazardous waste European Waste Catalogue code for this material is 10.02.13.

14. Transport Information

Not classified.

15. Regulatory Information

Classified according to Chemicals (Hazardous Information and Packaging) Regulations (2002):

Xi - Irritant (St Andrews cross with i)

N - Dangerous to the environment

R36/37/38 Irritating to eyes, respiratory system and skin.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 Wear suitable gloves.

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions.

This safety data sheet has been prepared to comply with the Chemicals (Hazardous Information and Packaging for Supply) Regulations 2002. It may assist in preparing COSHH assessments but is not a substitute for a COSHH assessment.

Hazardous Waste Regulations 2005 apply.

16. Other information

List of relevant R-phrases

R34	Causes burns.
R36/37/38	Irritating to eyes/respiratory tract/skin
R50	Very Toxic to aquatic organisms
R52	Harmful to aquatic organisms
R53	May cause long term adverse effects in the aquatic environment

The following were consulted in preparing this safety data sheet.

Approved Codes of Practice-

The compilation of Safety Data Sheets (Third edition)
Approved Classification and labeling guide (fifth edition)
Approved Supply List (eighth edition)
EH40:Occupational Exposure Limits (2005).

Other Material

European Chemical Substances Information System (ESIS)
ICSC (International Chemical Safety Cards . published on IPCS INCHEM website by the International Program on Chemical Safety and the Commission of the European Communities)
0208 (Zinc oxide), 0408 (Calcium hydroxide), 0793 (Ferrous Oxide), 1577 (Ferric Oxide)
Hunters Diseases of Occupations, ninth edition.
UNECE website for the UN Model Regulations on the transport of dangerous goods, fifteenth revised edition.

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