

MATERIAL SAFETY DATA SHEET

SUBSTANCE: - MAGNETITE Fe_3O_4

Supplier Details			
Supplier Name		Emergency Telephone	+919823033705 +917798777721
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Person Responsible for updating MSDS	Manager Environment & Occupational Hygiene	URL	www.phoenixamalgams.com

1. Product Information

IRON OXIDE [MAGNETITE]	EC Number : 215-169-8
CAS No : 1309-38-2	REACH Registration Number : Exempt

2. Data Composition

Name	IRON OXIDE [Magnetite]
Chemical Formula	Fe_3O_4
Density	4.80 – 5.1

3. Physical & Chemical Properties

Boiling point	NA	Vapor pressure	1mm HG 20°C
Appearance	Black powder	Evaporation Rate	NA
Odour	Odourless	Incompatibility	None
Chemical properties	Stable Substances	% by weight	100%
Solubility in water	Insoluble	Melting point	2550 - 2900 F
Molecular Weight	231.53	pH	6-8 [in aqueous suspension]

4. Stability & Reactivity

Reactivity	No Specific Reactivity Hazards associated with this product.
Chemical stability	Stable under normal temperature conditions.
Possibility of hazardous reactions	Not relevant
Conditions to avoid	No specific conditions are likely to result in a hazardous situation.
Incompatible materials Materials to avoid	No specific or groups of materials are likely to react to produce a hazardous situation.
Hazardous decomposition products	None under normal circumstances.
Hazardous polymerization	Will not occur.

5. Hazardous Identification

Emergency Overview	Black powder may irritate respiratory tract.
Route (s) of Entry	Inhalation and ingestion.
Acute Exposure	Not expected to be irritating to eyes and skin and essentially non-toxic by ingestion.
Chronic Exposure	Prolonged, frequent and excessive exposure may result in siderosis (accumulation of iron within the lungs).
Carcinogenicity (NTP) (IARC) (OSHA)	No
Eye	Dust may irritate eyes through mechanical action.
Skin contact	May irritate through mechanical action.
Inhalation	May be irritating to the nose, throat and respiratory tract.
Ingestion	None Expected
Sign and symptoms	Irritation of nose, throat and respiratory tract which may result in sneezing, coughing and running nose.
Carcinogenicity	This product is not listed as carcinogens by NTP, IARC, OSHA or ACGIH as magnetic.
Agency's	Osha : Occupational Safety & Health Administration; TSCA Toxic Substances Control Act ; CERCLA : Comprehensive Environmental Response Compensation and Liability Act, NTP National Toxicology Program; IARC : Internation Agency for Research on Cancer; ACGIH : American Conference of Government Industrial Hygienist; RCRA : Resource Conservation and Recovery Act.

6. First Aid Measures

Eye contact	Check for and remove any contact lenses. Immediate flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.
Skin contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.
Serious Skin contact	Wash with a disinfectant soap and cover the contaminated skin with an anti- bacterial cream. Seek medical attention.
Inhalation	Allow the victim to rest in a well- ventilated area. Seek medical attention.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention.
Ingestion	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.
Serious Ingestion	Not Available

7. Fire measurers & explosion data

Flammability of the product	Non- Flammable
Auto-Ignition Temperature	Not Applicable. Flash points : Not applicable
Flammable limits	Not applicable
Products of Combustion	Not available
Fire hazardous in presence of Various substances	Not applicable
Explosion Hazards in presence of various Substances	Not Applicable
Risks of explosion of the product in presence of mechanical impact	Not available
Risks of explosion of the product in presence of static discharge	Not available
Fire Fighting media and Instructions	Not applicable. Special Remarks on fire Hazards not available
Special Remarks on explosion Hazards	Not available

8. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large spill	Stop leak. Prevent entry into sewers, basements or confined areas. Call for assistance on disposal.
Personal precaution, productive equipment and emergency procedures	Follow precaution for safe handling described in this safety data sheet.
Environmental precaution	The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.
Methods and material for containment and cleaning up	Avoid dust formation. Remove spillage with vacuum cleaner. If not possible collect spillage with shovel, broom or the like. Transfer to a container for disposal.
Reference to other sections	For personal protection see section 6 & for waste disposal see section 13.

9. Handling & Storage

Work Practices and Hygienic Practices :	Avoid contact with eyes and ingestion. Make sure that work areas have some form of ventilation or fresh air available.
Storage and handling Practices	Store and handle in accordance with all current regulation and standards, store outside or in a detached building. Avoid crating dust, contact with eye, skin and clothing.

10. Exposure Control / Personal Protection

Exposure Limits/Guidelines

Chemical Name	CAS#	ACGIH TWA	OSHA TWA	SWA	NIOSH
Magnetite,	1309-38-2	5mg/m3	6mg/m3	Not Listed	5mg/m3
Ventilation and Engineering Controls	Use with adequate ventilation to ensure exposure levels are maintained below exposure limits. Use local exhaust ventilation to control airborne dust. Ensure eyewash stations are available near where this material is used.				
Respiratory Protection	A NIOSH approved air purifying respirator with approved cartridge or canister may be appropriate under extreme circumstances where airborne concentrations are expected to exceed exposure limits.				
Eye Protection	Wear appropriate splash resistant safety glasses.				
Hand Protection	Wear appropriate chemical resistant gloves.				
Body Protection	Wear appropriate chemical resistant clothing.				

11. Toxicological Information

Routes of entry	Absorbed through skin. Dermal contact, Eye contact, Inhalation, Ingestion.
Toxicity to animals	Not Available
RAT LD 50	☉ 5000 mg/kg
LC 50	Not considered to be a carcinogen by ACGIH,IARC,NTP,OSHA,MSHA,CA Prop65
Chronic Effects on Humans	Not Available
Other Toxic effects on Humans	Not Available
Special remarks on Toxicity to animals	Not Available
Special remarks on Chronic effects on humans	Not Available
Special remarks on other Toxic effects on Humans	Not Available

12. Ecological Data

Ecotoxicity	Not regarded as dangerous for the environment. No harmful effects on human, and is not toxic to fauna and flora. Non-harmful to the marine environment.
BOD5 and COD :	Not available
Products of Biodegradation	Not available
Toxicity of the products of Biodegradation	Not Available
Special remarks on products of Biodegradation	Not Available

13. Disposal consideration

Waste disposal	Waste must be disposal of in accordance with local environment control regulations & the local authorities.
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14. Transport

DOT Classification	Not classed as Hazardous
Road Transport ADR/RID and GGVS/GGVE	Not classed as Hazardous UN-No: None / None Regulated
Sea Transport IMDG/GGV See	UN-No: None / None Regulated
Air Transport TCAO/IATA	UN-No: None / None Regulated

15. Regulatory Information

Risk Phrase R36/R 37/R38	Irritating to eyes, respiratory system and skin.
Safety phrase S26	In case of contact with eyes, rinse immediately with plenty of water.
Regulatory information	According to OSHA 29 CFR 1910.1200 Iron Oxide is Not "Extremely Hazardous or Toxic". Values are given for permissible exposure limits and threshold values for dusting and fumes. There are no toxic chemicals under SARA title iii section 313. This product is listed on TSCA inventory. This product has no reportable quantities (RQ) under CERCLA. It is not considered a hazardous waste under CERCLA or RCRA. This product is not listed on the Hazardous materials HM 181. Iron oxide does not appear on the Hazardous Substances List.

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purpose. In no event shall the author be liable for any claims, losses, or damages of any Special, indirect incidental, consequential or exemplary damages, howsoever arising, even if the author has been advised of the possibility of such damages.

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