

**Material Safety Data Sheet**  
**According to 91/155/EEC and ISO 11014-1**

1. Identical of substance:  
Company Name: Yuxing Pigment Co., Ltd  
Product Name: Iron Oxide Green  
Chemical characterization: synthetic iron oxide  $FE_2O_3 \cdot H_2O(\alpha-FeOOH)$ , C.I. Pigment yellow 42/blue 15:3  
CAS.NO: 51274-00-1, 147-14-8  
Einecs NO: 243-746-4
2. Hazardous ingredients:  
THIS PRODUCT CONTAINS NO HAZARDOUS INGREDIENTS
3. Physico and chemical properties:  
PHYSICAL FORM.....SOLID: POWER  
COLOR.....GREEN  
105°C VOLATILE .....1.0%MAX  
RESIDUES ON 325 MESH.....0.3%MAX  
RELATIVE TINTING STRENGTH.....100%
4. Fire and explosion data:  
FLASH POINT.....NOT APPLICABLE  
AUTO-IGNITION TEMPERATURE...NOT APPLICABLE  
EXTINGUISHING MEDIA..... MATERIAL IS NOT COMBUSTIBLE. USE EXTINGUISHING MEDIA SUITABLE FOR OTHER COMBUSTIBLE MATERIALS IN THE AREA.  
SPECIAL FIRE FIGHTING PROCEDURES: NONE
5. Human health data:  
ROUTES OF ENTRY: EYE CONTACT, SKIN CONTACT, INHALATION  
HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE  
ACUTE EFFECTS OF EXPOSURE..... ON THE BASIS OF ANIMAL TOXICITY DATA WE WOULD EXPECT THIS PRODUCT TO BE NON-IRRITATING TO THE EYES AND SKIN AND ESSENTIALLY NON-TOXIC BY INGESTION. HOWEVER, EXCESSIVE EXPOSURE TO AIRBORNE DUST: MAY REDUCE VISIBILITY AND /OR CAUSE IMPLEASANT DEPOSITS IN THE EYES, EARS AND NOSE. TO THE SKIN OR MUCOUS MEMBRANES CAN OCCUR BY DIRECT MECHANICAL ACTION OR BY RIGOROUS SKIN CLEANING NECESSARY FOR MEMBER OF DUST.  
CHRONIC EFFECTS OF EXPOSURE.....NO CHRONIC HEALTH EFFECTS ARE KNOWN FROM REPEATED EXPOSURE TO IRON OXIDE PIGMENTS.  
OTHER EFFECTS OF EXPOSURE..... PROLONGED INHALATION (6 TO 10 YEARS) OF IRON OXIDE FUME HAS BEEN REPORTED TO PRODUCE CHANGE IN LUNG RAYS OF EXPOSED INDIVIDUALS. THIS CONDITION, SIDEROSIS, IS CONSIDERED TO BE A BEGIN PHUEMOCONIOSIS THAT EXHIBIES NO ADVERSE HEALTH EFFECTS. SIDEROSIS HAS BEEN PRESENT. TO THE BEST OF OUR KNOELEDGE, THIS CONDITION HAS NOT BEEN OBSERVED AFTER PROLONGED EXPOSURE TO IRON OXIDE PIGMENTS.
6. Employee protection recommendations:  
EYES PROTECTION REQUIREMENTS.....SAFETY GLASS ARE RECOMMENDED  
SKIN PROTECTION REQUIREMENTS.....RUBBER,CLOTH,OR PLASTIC GLOVES ARE RECOMMENDED TO REDUCE SKIN CONTACT WHERE APPROPRIATE FOR JOB

CONDITIONS

RESPIRATOR REQUIREMENTS.....AMBIENT CONCENTRATIONS IN THE WORK AREA SHOULD BE MONITORED AND IF THE RECOMMENDED EXPOSURE LIMIT IS EXCEEDED, A NIOSH/MSHA APPROVED DUST RESPIRATOR SHOULD BE WORN.

VENTILATION REQUIREMENTS.....USE LOCAL VENTILATION TO MAINTAIN AIR LEVEL BELOW THE RECOMMENDED EXPOSURE LIMIT IF DUSTING IS A PROBLEM.

ADDITIONAL PROTECTIVE MEASURES....EYE WASH STATIONS AND WASHING FACILITIES SHOULD BE AVAILABLE. EMPLOYEES SHOULD WASH THEIR HANDS AND FACE BEFORE EATING, DRINKING OF USING TOBACCO PRODUCTS.

7. Spill and leak procedures:

SPILL AND LEAK PROCEDURES.....VACUUM OR SCOOP MATERIAL INTO AN APPROPRIATELY MARKED CONTAINER FOR RECLAMATION OR DISPOSAL. AVOID EXCESSIVE GENERATION OF DUST. IF DUST IS GENERATED, USE APPROPRIATE RESPIRATORY PROTECTION.

WASTE DISPOSAL METHOD.....MATERIAL WHICH CANNOT BE RECYCLED INTO YOUR PROCESS SHOULD BE LANDFILLED IN ACCORDANCE WITH FEDERAL STATE AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

8. Special precautions and storage data

STORAGE TEMPERATURE (MIN/MAX) : AMBIENT/AMBIENT

SHELF LIFE.....UNLIMITED

SPECIAL SENSITIVITY..... NONE KNOWN

HANDLING STORAGE PRECAUTIONS.....STORE DRY AT AMBIENT TEMPERATURE AWAY FROM FOOD AND BEVERAGE. AVOID BREATHING DUST. AVOID CONTACT WITH EYES AND SKIN. WASH THOROUGHLY AFTER HANDLING.

THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, EXCEPT THAT IT IS ACCURATE TO THE BEST KNOWLEDGE OF YIXING YUXING PIGMENT FACTORY. THE DATE ON THIS SHEET REFERS ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN. YIXING CITY YUXING PIGMENT FACTORY ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE UPON THESE DATA.

9. Physical and chemical properties

Form: powder

Color: red

Odor: odorless

Change in physical state

Thermal Decomposition:

Flash point: not flammable

Flammable properties: The product is not flammable under standardized conditions.

Explosion risks: The product is not explosive.

Specific Gravity: Greater than 1.

Viscosity: Not applicable.

Vapour pressure: Not applicable.

		Value/Area	Unit	Method
Density:	(20°C)	4.1	g/cm <sup>3</sup>	DIN/ISO 787

Solubility in water:	(20°C)	<0.5	%	DIN/ISO 787
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PH-Value: (at 100 g/l H <sub>2</sub> O)	(20°C)	ca.3.5-7		DIN/ISO 787
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**10. Stability and reactivity**

Hazardous Polymerization: Will not occur.  
Stability: Stable Material.  
Incompatibilities: None known.  
Instability conditions: None known.  
Decomposition temperature: Greater than 120°C.  
Decomposition products: None known.

**11. Toxicological Information**

Acute Toxicity:  
LD50/oral/rat: Not tested.  
LD50/inhal/rat: Not tested.  
Sensitizing: None expected.  
Primary skin irritation/rabbit: No data available.  
Because of experiences with the product mentioned, there are no recognizable hazards for human beings, if it is correctly used and applied.

**12. Ecological informations**

Mobility: No data available.  
Degradability: No data available.  
Accumulation: No data available.  
Short and long term effects on:  
Ecotoxicity: No data available.  
Other adverse effects: No data available.

**13. Disposal considerations**

Product:  
Material which can not be re-used should be disposed in according with federal, state and local environmental control regulations at an authorized site by an approved contractor. This product when discarded as sold is not a RCRA hazardous waste. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40CFR 261.20-24)  
Waste Code No.:  
Check re-use as alternative.  
Contaminated packages and containers:  
Emptied, but contaminated packages and containers may be recycled.  
Waste Code No.: 18715 (Germany)

**14. Transport information**

International:		
Land transport:	ADR/RID/GGVS/GGVE:	Not Regulated
Sea transport:	IMDG/GGV See UN-No.:	Not Regulated
Air transport:	ICAO/IATA UN/ID-No.:	Not Regulated
U.S.	D.O.T. Classification:	Not Regulated
CANADA	Transport of dangerous goods:	Not Regulated

DOT Shipping Name: None  
Technical Shipping Name: Inorganic Oxide

DOT Hazardous Classification: Non-Regulated. This product is not classed as a dangerous substance under the classification, Packaging and Labeling of Dangerous Goods Act.

DOT Hazard Class: Non-Regulated.

DOT Identification Number: None

DOT Labels required: None

DOT Placards required: None. No specific transportation precautions required.

UN Class: None

UN/NA Number: None

#### 15. Regulatory information

Labeling according to EEC Directives: Not regulated.

SARA

SARA 312:

Health: Immediate (Acute):	No*	Fire:	None
Delayed (Chronic):	No**	Reactivity:	None
Sudden release of pressure:	None		

Not an acute hazard, however may cause irritation due to abrasiveness.

These products are not classified as Carcinogens by the National Toxicology Program, the International Agency for Research on Cancer or the Occupational Safety and Health Administration. We do not know of any chronic health effect from these products. The finished pigment is a fine powder and may increase the risk of respiratory and skin disorders aggravated by dust.

The product is not a substance subject to mandatory marking in accordance with the EEC Directive 67/548/EEC or amendments.

Water risk class: WGK 0 (Self-assessment, acc. to § 7a 19,19a-1 of German Water Utilization Act (WHG).

#### 16. Further information:

HMIS Codes: H=0,F=0,R=0,P=0 (0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe)

Vertical markings at left margin denote alterations of previous issue.

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Department issuing this data sheet: Product safety department