

**MATERIAL SAFETY DATA SHEET****1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

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PRODUCT NAME	Red Iron Oxide Pigment
TRADE NAMES/SYNONYMS	Iron (II,III) oxide
PRODUCT CODE	R-130/R-103/R-103-MG
CHEMICAL CLASS	Inorganic metal oxides, iron oxide
CHEMICAL FORMULA	Fe <sub>2</sub> O <sub>3</sub>

**2- COMPOSITION AND INFORMATION ON INGREDIENTS**

Cas Number	EC (EINECS) Number	Chemical Name	Formula	% Iron Oxide
1309-37-1	215-168-2	Iron (III) oxide	Fe <sub>2</sub> O <sub>3</sub>	100

**3- HAZARDS IDENTIFICATION**

<b>HAZARD DESCRIPTION</b>	X <sub>i</sub> Irritant
<b>INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT</b>	R 36/37/38 Irritating to eyes, respiratory system and skin.

**4- FIRST AID**

<b>LIMITS OF EXPOSURE</b>	
<b>LONG TIME EXPOSURE</b>	<b>ACUTE, CHRONIC</b>
	<b>FIRST AID</b>
EYE CONTACT : Harmful.	Rinse opened eye for several minutes under running water. Then consult a doctor.
SKIN CONTACT : Harmful.	Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.
INGESTION : Harmful.	Call a physician.
INHALATION : Harmful.	If not breathing perform artificial respiration, if breathing give fresh oxygen. Remove to fresh air and call a physician.
TOXIC TYPE :	-
OTHER ADVISES :	

**5- FIRE FIGHTING MEASURES**

SUITABLE EXTINGUISHING AGENTS	CO <sub>2</sub> , extinguishing powder or water spray. Fight larger fires with water spray.
PROTECTIVE EQUIPMENT	Wear self-contained respirator. Wear fully protective impervious suit.

**6- ACCIDENTAL RELEASE MEASURES**

PERSON RELATED SAFETY PRECAUTIONS	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
MEASURES FOR ENVIRONMENTAL PROTECTION	Do not allow material to be released to the environment without proper governmental permits.
MEASURES FOR CLEANING / COLLECTING	Dispose the material according to item 13.
OTHER PROCEDURES	See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

**7- HANDLING AND STORAGE**

STORING and LOADING PRECAUTIONS	Keep away from eye and skin contact. Place in closed containers. Keep away from food. If contacted wash thoroughly.
HANDLING	Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Open and handle container with care.
OTHERS	Do not inhale and protect from flammable media.

**8- EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 0.5 m per second.

**Components with limit values that require monitoring at the workplace:**

OSHA PEL: 10 mg/m<sup>3</sup> (fume)

**Personal Protection**

EYES	Safety glasses or goggles. Eye-flushing stations.
SKIN	Rubber gloves and protective clothes, apron, impervious gloves.
INHALATION	Use suitable respirator when high concentrations are present.
LOCAL VENTILATION EXITS	Mechanical(General) local ventilation is enough according to the exposure limits.
OTHER PROTECTIVE EQUIPMENTS	<p>The usual precautionary measures for handling chemicals should be followed.</p> <p>Keep away from foodstuffs, beverages and feed.</p> <p>Remove all soiled and contaminated clothing immediately.</p> <p>Wash hands before breaks and at the end of work.</p> <p>Avoid contact with the eyes and skin.</p>

**9- PHYSICAL AND CHEMICAL PROPERTIES**

<b>FORM</b>	Powder, Crystal	<b>SOLUBILITY IN WATER</b>	Insoluble
<b>MELTING POINT</b>	1538°C	<b>COLOUR</b>	Red
<b>BOILING POINT</b>	N/A	<b>ODOR</b>	Odorless
<b>FREEZING POINT</b>	N/A	<b>MOLECULAR WEIGHT</b>	160,0
<b>BULK DENSITY ±15%</b>	750kg/m <sup>3</sup>	<b>EVAPORATION DENSITY</b>	N/A
<b>SPECIFIC GRAVITY</b>	4,9±0,1	<b>EVAPORATION RATE</b>	N/A
<b>OTHER DATA</b>		<b>pH</b>	5,0±1,0

**10- STABILITY AND REACTIVITY**

STABILITY	Stable under normal conditions
UNSTABILITY REASONS	Decomposes at 170°C.
POLIMERIZATION and ITS DANGERS	None.
UNSTABILITY CONDITIONS and MATERIALS	Acids Oxidizing agents.No dangerous reactions known.
DANGEROUS PRODUCTS OF DECOMPOSITION	Thermal decomposition products: Metal oxide fume.

**11- TOXICOLOGICAL INFORMATION**

Acute toxicity and primary irritant effect.

ON THE SKIN	Irritant to skin and mucous membranes.
ON THE EYE	Powder: irritant effect
SENSITIZATION	No sensitizing effects known.
SUBACUTE TO CHRONIC TOXICITY:	Iron compounds may cause vomiting, diarrhea, pink urine, black stool, and liver damage. May cause damage to the kidneys. Irritating to the respiratory tract, they may cause pulmonary fibrosis if dusts are inhaled.
ADDITIONAL TOXICOLOGICAL INFORMATION:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**12- ECOLOGICAL INFORMATION**

Do not allow material to be released to the environment without proper governmental permits.

**13- DISPOSAL INFORMATION**

Consult state, local or national regulations for proper disposal. Disposal must be made according to official regulations.

**14- TRANSPORT INFORMATION****PROPER SHIPPING NAME** : None.**HAZARD CLASS** : None.**Land transport ADR/RID (cross-border)****ADR/RID CLASS** : None.**Maritime transport IMDG:****IMDG CLASS** : None.

Not a dangerous good for transportation.

**15- REGULATIONS**

X<sub>i</sub> : Irritant

**EUROPEAN RISK and SAFETY CODES**

- R 36/37/38 Irritating to eyes, respiratory system and skin.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 37/39 Wear suitable gloves and eye/face protection.

**16- OTHER INFORMATION**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.