

Material Safety Data Sheet (MSDS)

Complies with OSHA 29 CFR 1910.120

Kerox Pigments

Section I - Product Identification

| | | | |
|---|--|-----------------------|---------------------|
| Manufacturers/Distributors Name : Kerox Chemicals Pvt. Ltd. | Date Prepared : May 04, 1996 Last Update : June 08, 2004 | | |
| Address : Kerox Chemicals Pvt. Ltd. No. 95, Basavanapura, Bannerghatta Road Bangalore – 560 083, INDIA | Emergency Phone # : (+91-80) 2842-9532 / 9774 / 9775 Email : keroxoffice@kerox.org Web : www.kerox.org | | |
| Product (Trade) Name : Kerox™ Pigments | General Chemical Name : Polyester Pigment Concentrate | | |
| NFPA Classification : 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant | | | |
| Health : 0 | Fire : 1 | Reactivity : 0 | Other : None |

Section II - Ingredients and Identity Information

| Chemical / Common Name | %Weight | Exposure Limits | | CAS # |
|--|-----------|-----------------|-----------|------------|
| | | PEL (ppm) | TLV (ppm) | |
| Polyester Non-Styrenated Resin (Unsaturated) | 30 - 60 % | N/A | N/A | |
| Inorganic/Organic Pigment powder (Some end products are Lead and Chromium Free and some contain Lead and Chromium compounds) | 65 - 25 % | N/A | N/A | See Page 3 |
| Proprietary stabilizers & thickeners (non-hazardous) | 5 - 15 % | N/A | N/A | NA |

Section III - Physical Data

| | |
|---|--|
| Boiling Point (° C) N/A | Specific Gravity 1.4 - 1.9 |
| Vapor Density N/A (No appreciable vapor present) | % Volatility by Weight Negligible (Less than 1 %) |
| Evaporation Rate N/A | Odor N/A |

Section IV - Fire and Explosion Hazard Data

| | | |
|--|------------------|--|
| Flash Point (° C) : N/A | LEL : N/A | Flammability : The material is not flammable (known safe up to 250° C). |
| Extinguishing Media : Use carbon dioxide or dry chemical extinguishers for small fires, and foam for large fires. Water spray may be used for fire extinguishing. In general, any Class B fire extinguishing agent may be used. | | |
| Unusual Fire & Explosion Hazards : Material is combustible, but not flammable. Elevated temperatures (above 300°C) can cause rapid volatilization of the polyester resin, which may ignite if air/oxygen is present. Thermal polymerization is also possible. Avoid using open flames, such as from welding or cutting torches, on or near pigment containers. | | |
| Special Fire Fighting Procedures : Cool pigment containers with water spray. Emergency personnel, firefighters, and anyone who may be exposed to vapors or products of combustion, should wear a Self Contained Breathing Apparatus (SCBA). | | |

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Section V - Health Hazard Information

Permissible Exposure Limits:

The pigments contain dry powders dispersed in a polyester resin matrix. The OSHA PEL's listed in Section II refer to the dry pigment powders, when used in the dry form. The PEL's, therefore, strictly refer to the dry pigment as a 'nuisance dust'. In the dispersed form, the PEL's are much higher. The PEL for the polyester resin is much higher than that for the dry pigments, and are not listed here.

Potential Effects of Overexposure:

Eyes :

Prolonged exposure may cause irritation, redness, or tearing.

Skin :

Prolonged or repeated contact may result in slight skin irritation and dryness.

Inhalation :

Prolonged inhalation of volatile materials in the product may cause mucous membrane irritation and upper respiratory discomfort. It may also result in headaches and nausea.

Ingestion :

Ingestion of the product can result in gastrointestinal disturbances, pain and discomfort.

First Aid Guidelines : See a doctor promptly after first aid procedure is performed.

Skin :

If the product gets on the skin, thoroughly wash exposed area with soap and water. Remove contaminated clothing, and either discard or thoroughly launder before reuse.

Eyes :

Thoroughly wash the eyes in a running stream of water for a minimum of 15 minutes. Seek medical aid.

Inhalation :

Remove victim from the exposure area, to an open area with fresh air. If the person is unconscious, administer artificial respiration and/or oxygen. Seek professional medical help immediately.

Ingestion :

Seek professional medical help immediately. Do not induce vomiting, as this may be a breathing hazard.

Primary Routes of Entry :

Inhalation and / or skin absorption.

Section VI - Reactivity Data

Stability :

Stable

Hazardous Polymerization :

Will not occur.

Conditions to Avoid :

Excessive heat and prolonged exposure to direct sunlight. Store product in a cool place.

Incompatibility :

Strong oxidizing agents, acids, and peroxides (except in small quantities while curing).

Hazardous Decomposition Products :

Thermal decomposition may generate carbon monoxide, carbon dioxide, low molecular weight hydrocarbons, and / or organic acids.

Section VII - Spill or Leak Procedures

Response to Spills and Release :

Since the product is a thick paste it will flow very slowly. Taking care not to contact any material, gently turn the container upright, to prevent further product leakage. Move the container to a secondary contained area, or place it on top of a plastic sheet. Take a scooping knife or a shovel, and remove all the material from the contaminated area, and transfer to a disposal plastic bag. If the spill is on open ground, scoop all soil that shows visible traces of the colored product, and transfer to the disposal bag. If the spill is on a room floor, desk, or table, wipe final traces of visible colored pigment with a soap solution or isopropyl alcohol, and transfer the wipe cloth/paper to the disposal bag. If the spills are large, dike the entire area around the spill, so as to prevent any material transfer to water streams, systems, or sewers.

Waste Disposal Methods :

- Recycle and reuse, if possible.
- Covert the waste pigment to a solid product by mixing with resin and catalyzing, the same way as if it were being used as a raw material. The stabilized solid product, can be either used for practical purposes, or disposed off to an EPA approved facility.
- Incinerate product at an EPA approved incineration facility.
- Dispose to an EPA approved landfill, complying with the relevant Federal and State regulations, DOT regulations, and manifesting requirements.

Section VIII - Special Protection Information

Protective Garments : Wear plastic gloves, shoes, and an apron while handling the product.

Respiratory Protection : Use the product in a well ventilated area, requires no special respiratory protective equipment. However, a NIOSH approved half face respiratory protective equipment, may be used, and is recommended.

Ventilation : Use product in a well ventilated open area, and / or in an area with adequate mechanical (general and / or local exhaust) ventilation.

Eye protection : Wear chemical safety goggles.

Section X - Special Precautions

Under any circumstances do not bring the product in contact with skin, eyes, and / or inhale and / or ingest product. Store product in a cool, well ventilated area, and keep the containers always closed during storage. Do not keep the product near an open flame, or a source of heat.

CAS # : Lead and Chromium free pigments have the following CAS #'s: 12259-21-1, 1309-37-1, 1317-61-9, 1328-53-6, 1333-86-4, 13463-67-7, 164-14-8, 2425-85-6, 5567-15-7, 57455-37-5, 6358-30-1.

Lead and Chromium compounds based pigments have the following CAS #'s: 1344-37-2, 12656-85-8.

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