

**MATERIAL SAFETY DATA SHEET**

*Supersedes:* May 20, 2004  
*Date of Issue:* June 28, 2004

MSDS Nº: FEOX/US01

**SYNTHETIC IRON OXIDES**

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Company Identification:**

**Name:** NUBIOLA Inc.  
**Address:** 6369 Peachtree Street  
Norcross, GA 30071  
**Tel. Number:** 770-338-4990

**FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT:**

**In the continental U.S., call:** 770-277-4990  
**For additional non-emergency information, call:** 770-277-8819

**Product Name:** Synthetic Iron Oxides

**Synonyms:** Iron Oxide Yellow, Iron Oxide Red, Iron Oxide Black, Iron Oxide Brown (Blend)

**Chemical formula:**  $\text{FeO} \cdot (\text{OH})$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{FeO} \cdot \text{Fe}_2\text{O}_3$

**SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS**

<b><u>Chemical Name</u></b>	<b><u>Percent</u></b>	<b><u>CAS Number</u></b>	<b><u>RTECS Number</u></b>
Iron Oxide Yellow Pigment Yellow 42 C.I. 77492	100	51274-00-1	---
Iron Oxide Red Pigment Red 101 C.I. 77491	100	1309-37-1	---
Iron Oxide Black Pigment Black 11 C.I. 77499	100	1317-61-9	---

**SECTION 3 - HAZARDS IDENTIFICATION**

**A YELLOW TO BLACK SOLID THAT POSES LITTLE OR NO IMMEDIATE HAZARD.**

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**SECTION 3 – HAZARDS IDENTIFICATION (CONTINUED)**

**Potential Health Effects**

1. **Skin:** May cause slight irritation.
2. **Eyes:** May cause slight irritation.
3. **Inhalation:** Avoid breathing dust.
4. **Ingestion:** May be harmful if swallowed
5. **Chronic information:** n.a.

**SECTION 4 – FIRST AID MEASURES**

**SEEK IMMEDIATE MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE**

**Skin:** Immediately wash skin with plenty of soap and water for at least 15 minutes. Remove dirty clothes and shoes and thoroughly clean before reuse.

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention.

**Inhalation:** Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**Ingestion:** Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by a physician.

**Note to Physician:** Treat symptomatically and supportively.

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**SECTION 5 – FIRE FIGHTING MEASURES**

	Synthetic Iron Oxide
<b>Flammability Properties:</b>	<b><i>Non-combustible. Not considered to be a fire hazard.</i></b>
<b>Flash Point / Method:</b>	No information available.
<b>Flammability Limits (in air % by volume)</b>	No information available.
<b>LEL:</b>	No information available.
<b>UEL:</b>	No information available.
<b>Auto ignition Temperature:</b>	No information available.
<b>Hazardous Combustion Products:</b>	n.a.
<b>Extinguishing Media:</b>	Water, dry chemical foam, or alcohol-resistant foam.
<b>Firefight instructions:</b>	As in any fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

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#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**General Information:** Wear appropriate personal protective equipment as specified in Section 8.

**Spills / Leaks:** Take up and containerize any spills for reclamation or disposal. US CERCLA Regulations require reporting spills and releases to soil, water, and air in excess of reportable quantities.

#### SECTION 7 – HANDLING AND STORAGE PROCEDURES

**Handling:** Avoid breathing dust. Wash thoroughly after handling. Keep container tightly closed. Wear appropriate personal protective equipment as specified in Section 8.

**Storage:** Store in a tightly closed container in a cool, dry location away from incompatible substances.

#### SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Respiratory Protection:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements for European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Skin Protection:** Wear appropriate protective clothing and gloves to prevent skin exposure.

**Eye Protection:** Wear appropriate protective eyeglasses or chemical safety goggles to prevent eye exposure.

*To be continued*

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**SYNTHETIC IRON OXIDES****Exposure Limits****OSHA Final PEL's**

OSHA Standard, 8 hour TLV (Total Dust): 10 mg/m<sup>3</sup>

**SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES**

<b>Physical state</b>	Solid
<b>Appearance</b>	Yellow, Orange, Red, Brown or Black
<b>Odour</b>	Odourless
<b>Ph</b>	Not applicable
<b>Vapour Pressure (mm Hg)</b>	Not applicable
<b>Vapour Density (Air=1)</b>	Not applicable
<b>Solubility in Water</b>	Insoluble
<b>Specific Gravity/Density</b>	4.10 g/cm <sup>3</sup> (water = 1) (Yellow) 4.90 g/cm <sup>3</sup> (Red) 4.60 g/cm <sup>3</sup> (Black)

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**SECTION 10 – STABILITY AND REACTIVITY DATA**

**Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation, excess heat, combustible materials, and moisture.

**Incompatibility:** n.a.

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** None

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**SECTION 11 – TOXICOLOGICAL INFORMATION**

**LD<sub>50</sub> (oral)** > 10 g/kg (rats)

**Chronic / Carcinogenicity:** no human carcinogen

**Teratology:** no teratogenic

**Reproduction:** no toxic for reproduction

**Mutagenicity:** no mutagenic

**Other Studies:** no information available

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**SECTION 12 – ECOLOGICAL INFORMATION**

**Environmental Fate:** This material is not expected to biodegrade when released into the soil. This material is not expected to significantly bioaccumulate.

LC<sub>50</sub> (fish) >10000 mg/kg

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**SECTION 13 – DISPOSAL CONSIDERATIONS**

Dispose of containers and contents in accordance with all local, state, and Federal requirements.

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#### SECTION 14 – TRANSPORTATION INFORMATION

##### D.O.T

**Proper Shipping Name:** Not applicable.

**Hazard Class/I.D. No./Packing Group:** Not applicable.

**Label:** Not applicable.

**Additional Information:** Not applicable.

##### I.M.O./I.M.D.G.

**Proper Shipping Name:** Not applicable.

**Hazard Class/I.D. No./Packing Group:** Not applicable.

**Label:** Not applicable.

**Additional Information:** Not applicable.

##### I.C.A.O./I.A.T.A.

**Proper Shipping Name:** Not applicable.

**Hazard Class/I. D. No. /Packing Group:** Not applicable.

**Label:** Not applicable.

**Additional Information:** Not applicable.

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## SECTION 15 – REGULATORY INFORMATION

### U.S. FEDERAL REGULATIONS

**TSCA Section 8 (b):** CAS showing in Section 2 listed on TSCA inventory.

**SARA title III Section 302 Extremely Hazardous Substances (EHS):** Since Iron Oxides are not EHS and no Threshold Planning Quantity is established, its presence in quantities at or above TPQ does not require any Emergency Planning Notification under 40 CFR Part 355.

**SARA title III Section 304 CERCLA Hazardous Substances:** Releases in quantities equal to or above their Reportable Quantity are not subject to any Emergency Notification, as no reportable quantity is established under 40 CFR Part 302.

**SARA title III Sections 311 / 312:** No reporting (Tier I or Tier II) shall be submitted by the facility under 40 CFR Part 370.

### Physical Hazards

Fire: None  
Sudden Release of Pressure: None  
Reactivity: None

### Health Hazards

Immediate (Acute): None  
Delayed (Chronic): None

**SARA title III Section 313 Toxic Chemicals:** No reporting for routine annual toxic chemicals release shall be submitted under 40 CFR Part 372.

***To be continued***

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**SYNTHETIC IRON OXIDES****FDA**

Iron Oxides are cleared in 21 CFR:

- Part 178 under §178.3297 (Colorants for Polymers)
- Part 177 under § 177.2600 (Colorants in Rubber Articles intended for repeated Use)

**State Regulations**

Iron Oxides do not appear on the following state Right to Know lists:

California Proposition 65  
New Jersey RTK Hazardous Substance List  
Pennsylvania Hazardous Substances List  
Florida Toxic Substance List  
Massachusetts Hazardous Substance List  
Michigan Critical Materials Register  
Minnesota Hazardous Substance List

**Others**

Canadian Environmental Protection Act Domestic Substances List (**DSL**)  
Australian Inventory of Chemical Substances (**AICS**)  
**CONEG**-Developed Model Toxics in Packaging Legislation

**European Directives**

Directive 94/62/EEC: EU Directive on Packaging and Packaging Waste;  
comparable to US CONEG Legislation  
Resolution AP 89 (I): use of colorants in plastic materials and articles that may  
come into contact with foodstuffs.  
Directive 2004/73/EC (last amendment of Dir. 67/548/EEC): Iron Oxides are not  
listed in Annex I (Dangerous Substances)

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#### SECTION 16 – OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, neither Nubiola, Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The possibility exists that the EU will not recognize this MSDS due to the fact that several components of the MSDS are reflective of ANSI Z-400.1-1998. Although ILO (International Labour Organization) has adopted ANSI Z-400.1-1998, ultimate disposition lies with the competent authority.

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MSDS Request Department  
Phone: 352-323-3500  
Fax: 352-323-0005

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To:

Company :

Fax Number : 1(817)6053156

Phone Number :

From: FRAN.BAILEY

Fax Number :

Phone Number :

Time Sent : 12/21/2006 11:51AM

Pages : 23

Description : F. Bailey (MSDS Request #20061221-186344) - 1.2

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#### MESSAGES:

You will find the requested MSDS sheets attached as PDF documents. Adobe

Acrobat Reader is required to view them.

ATTN: MELANIE

<<I:\m9\WD 40 CO\12838.PDF>> <<I:\m9\MACCO  
ADHESIVES\MACCOLN901.pdf>>

<<I:\M9\GE SEALANTS AND ADHESIVES\GE22764.PDF>>

<<I:\m9\MAPEI CORP\10725.pdf>

> <<I:\m9\MAPEI CORP\336.pdf>>

# LOKWELD®

## 600

### FLAMMABLE BRUSH OR ROLLER GRADE CONTACT ADHESIVE

**LOKWELD® 600** is a professional-quality contact adhesive that has been adjusted to meet the requirements of the Consumer Products Safety Commission (CPSC); that is, it has a flash point of more than 20° F. LW 600 has been approved by the U.S. Navy for use on shipboard under the provisions of Federal Specification MMM-A-130. LW 600 provides a consumer or professional answer for bonding such surfaces as decorative laminate, wood, leather and many other materials.

#### PRODUCT DESCRIPTION

LW 600 is a polychloroprene synthetic rubber phenolic resin blend with a solvent system of toluene, MEK and lactol. Solids content is a nominal 21% by weight.

#### AVAILABILITY

LW 600 is available in quart, gallon, five-gallon and 55-gallon containers.

#### STORAGE

Store the adhesive at room temperature. It is a good idea to keep the containers at least a foot away from outside walls, and up off of concrete floors. Set the containers on a pallet, or on something which will elevate the container enough so that air can circulate between the container and the floor. If the container sits on a concrete floor or is in contact with an outside wall, the floor or wall can become a heat sink and act to make the contents colder than the air in the storage area. LOKWELD contact adhesives never need stirring.

**SHELF LIFE:** The shelf life of LW 600 is one year from the date of manufacture.

#### DIRECTIONS FOR USE

1. Use only after careful consideration of the warnings and first aid instructions given.  
2. This, or any contact adhesive, should never be stored in containers made of copper, nor pumped through copper pipe, or through fluid systems made of copper. No contact adhesive should be applied to copper, or to any product or surface containing copper. Exposure of the adhesive polymers to copper, and some of its alloys, can damage the adhesive's ability to bond, and result in delamination.

3. Some vinyls contain plasticizers which can, over time, soften and dissolve the bond. When in doubt, conduct tests on the product to be bonded.

4. LOKWELD Contact Adhesive gives best results when adhesive and parts to be assembled are at 65°F or above.

5. Good bonds depend upon clean, dry surfaces. Remove all paint, dirt, grease, moisture and foreign matter.

6. Application and drying must be in an approved booth, or in an area provided with positive ventilation to exhaust the solvent vapor.

7. Use a good quality roller cover. Your LOKWELD distributor carries a LOKWELD stippled nappe roller which has proven itself to be effective for many fabricators.

8. Roll or brush a uniform coat of LW 600 onto both surfaces to be bonded. Cover 100% of the surface with at least 3.0 dry grams of adhesive per square foot. Porous surfaces require two coats. The adhesive film should be shiny when dry and ready to bond. Always double coat edges.

9. Allow the adhesive to dry completely before bonding — about 15 to 20 minutes. When dry and ready to bond, the adhesive will be tacky, but when pressed firmly with your finger tips, should not leg or transfer to the finger. If the two surfaces don't grab immediately when brought into contact, they have dried too long. They can be reactivated by applying another thin coat of adhesive over each surface.

10. Position the parts carefully, because no adjustment is possible after the adhesive makes contact. Complete the bond within one hour (under normal conditions) after the adhesive is dry.

11. Apply uniform pressure over 100%

of the area to be bonded. A pinch roller works best, but a three-inch rubber "J" roller diligently used will provide acceptable pressure (at least 30 psi).

12. You may trim or rout immediately. Use LOKWELD 100 Flammable Solvent to clean equipment and to remove adhesive residue from finished products. Thinning LOKWELD 600 with LOKWELD 100 Solvent or other solvents is not recommended, since the resulting mixture could lower performance and jeopardize the bond strength of the adhesive.

**COVERAGE:** One gallon is sufficient to cover about 222 square feet of area, or to bond 111 square feet of HPDL (at a coverage rate of three dry grams of adhesive per square foot on each surface) to 111 square feet of substrate.

#### SAFETY PRECAUTIONS

Prevent buildup of vapors — open all windows and doors, and use only with good ventilation. Keep away from heat, sparks, and open flame. Do not smoke, extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors, and other sources of ignition during use and until all vapors are gone. Avoid prolonged contact with skin or repeated breathing of vapors. Close container tightly after use. Store in a cool, well-ventilated area.

**HEALTH HAZARD DATA/TARGET ORGAN EFFECTS:** Harmful or fatal if swallowed. If swallowed, do not induce vomiting. Call physician immediately. Vapor harmful. Inhalation of vapors may cause central nervous system depression with



## FOR PROFESSIONAL OR CONSUMER USE

LOKWELD® 600