

MATERIAL SAFETY DATA SHEET

For Chemicals, Coatings and related materials
"Essentially similar" to form OSHA-20

MANUFACTURER

NAME:	UNITED COLOR MANUFACTURING, INC.	EMERGENCY TELEPHONE NUMBERS:
ADDRESS:	660 Newtown-Yardley Road Newtown PA 18940	MEDICAL OR CHEMTREC (24 HRS) TRANSPORTATION: (800)424-9300 INFORMATION: (215)860-2165

SECTION I - PRODUCT INFORMATION

PRODUCT NAME: UNISOL® Liquid Red B	<u>H M I S HAZARD CODES</u>
DESCRIPTION: Red Dye Concentrate	Health: 2 (Moderate)
CLASS: Liquid	Flammability: 3 (Serious)
	Reactivity: 0 (Minimal)
	Personal Protective Equipment: B

SECTION IIA - HAZARDOUS INGREDIENTS

INGREDIENT MATERIAL DESCRIPTION	PERCENT* BY WEIGHT	C.A.S. REGISTRY NO.	VAPOR PRESSURE LEL mmHg @ 68 F
**Dimethylbenzenes	27.0	1330-20-7	N/A 5.1
**Ethylbenzenes	5.0	100-41-4	N/A N/A

* These figures are typical properties, they do not constitute a specification.

**Spillages of dye containing these materials may be notifiable under SARA Title 3, Section 313. For details, see SECTION IX of this MSDS.

SECTION IIB - NON HAZARDOUS INGREDIENTS

INGREDIENT MATERIAL DESCRIPTION	PERCENT* BY WEIGHT	C.A.S. REGISTRY NO.	VAPOR PRESSURE LEL mmHg @ 68 F
C.I. Solvent Red 164**	68.0	See Below	N/A N/A

* These figures are typical properties, they do not constitute a specification.

** 2-Naphthalenol (Phenylazo) Phenyl Azo Alkyl Derivatives. TSCA Accession #35371.

SECTION III - PHYSICAL DATA

BOILING RANGE: 279-302 F	FREEZING POINT: < -20 F
VAPOR PRESSURE: 5.1mm @ 68 F	VAPOR DENSITY: Heavier than air
SPECIFIC GRAVITY: 1.0	H ₂ O SOLUBILITY: Insoluble
EVAPORATION RATE: Slower (relative to n-butyl acetate)	% VOLATILE BY VOLUME: 32
N-OCTANOL/WATER PARTITION COEFFICIENT: Log P _{ow} expected to be greater than 4	
APPEARANCE AND ODOR: Dark Red Aromatic Liquid	

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT: >83.0 F	EXPLOSIVE LIMITS:	<u>LEL</u>	<u>UEL(% V IN AIR)</u>
METHOD USED: TAG		1.0%	6.6%

FLAMMABILITY CLASSIFICATION:

OSHA: Flammable liquid-Class 1B
 DOT: Flammable liquid

EXTINGUISHING MEDIA:

Alcohol Foam, Carbon Dioxide(CO₂), Dry Chemical. Water Spray: May be used for controlling fumes, protecting exposed material or on overheated containers. Be sure water does not spread fire.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear NIOSH-MSHA approved self-contained breathing apparatus. Wear impervious clothing. Use water spray to cool and protect exposed material or overheated containers. Take care not to spread fire with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Solvent vapors are an explosion hazard. Keep material away from all sources of ignition: extreme heat, open flame and any situation which may produce static or electric discharge, sparks or sparks resulting from frictional contact. Closed containers may explode from vapor pressure increases when exposed to extreme heat. Cool overheated containers with water spray, but do not spread the fire with cooling water. Vapors may travel great distances and ignite and flashback to source. See Section VIII for possible hazardous decomposition materials.

SECTION V - TOXICOLOGICAL INFORMATION
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DEFINITIONS:

N/A - Not Available and/or Not Applicable
 Tag - Tag Closed Cup (TCC)
 PEL - Units of mg/cubic meter
 (*) - SARA Section 313 listed. IF CHEMICAL SYMBOL * IN () MATERIAL IS A COMPOUND. Example: (*Cu) - report as copper compound.

SECTION V - TOXICOLOGICAL INFORMATION Cont...
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NOTE: Please refer to the end of Section IX for Regulatory Information pertaining to the determination for the listing of ingredients, CAS numbers, percentages and other information.

INGREDIENT MATERIAL DESCRIPTION	TLV (twa)		LD50 (g/kg)		LC50 (ppm)
	PEL	mg/m ³	(rat) ORAL	(rabbit) DERMAL	(rat) INHAL.
Colorant	N/A	N/A	N/A	N/A	N/A
Dimethylbenzenes (Xylene)*	100	100	4.3	3.16	5,000
Ethylbenzenes*	N/A	N/A	N/A	N/A	N/A

SECTION VI - HEALTH HAZARD DATA
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EFFECTS OF OVEREXPOSURE:

PRIMARY ROUTE(S) OF EXPOSURE/ENTRY: Eye contact, skin contact, inhalation, ingestion.

EYES	Vapors may irritate the eyes. Liquid is irritating and potentially damaging to the eyes.
SKIN	Liquid may irritate and dry the skin. Prolonged contact may lead to burns and blisters and may aggravate dermatitis.
INHALATION	Vapors may irritate the respiratory tract. May lead to headache, dizziness, nausea, vomiting and unconsciousness. High vapor concentrations are anesthetic and may have other central nervous system effects including death.
INGESTION	May lead to headache, dizziness, nausea and abdominal pain.

ECOLOGICAL INFORMATION Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

MOBILITY	Liquid under most environmental conditions. Floats on water. If it enters soil, it will absorb to soil particles and will not be mobile.
DEGRADABILITY	Not established
BIOACCUMULATION	Has the potential to bioaccumulate
ECOTOXICITY	Not established. Insoluble in water.

SECTION VII - EMERGENCY AND FIRST AID PROCEDURES

- EYE CONTACT:** Immediately flush with large amounts of water for 10-15 minutes. **SEEK PROMPT MEDICAL ATTENTION !!!**
- SKIN CONTACT:** Promptly remove all contaminated clothing, shower if necessary. Remove from skin with proprietary water less hand cleaner or cold cream. Discard contaminated clothing and shoes.
- INHALATION:** If dizzy, drowsy or overcome, remove to fresh air. If breathing has stopped, apply artificial respiration. **GET MEDICAL ATTENTION AS SOON AS POSSIBLE !!!**
- INGESTION:** **DO NOT INDUCE VOMITING!! GET MEDICAL ATTENTION IMMEDIATELY!!**

SECTION VIII - REACTIVITY DATA

- STABILITY:** Stable
- CONDITIONS TO AVOID:** Extreme heat, open flames or sparks
- INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizing agents, strong reducing agents, Acids
- HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of Carbon, Oxides of Nitrogen
- HAZARDOUS POLYMERIZATION:** Will not occur
- POLYMERIZATION CONDITIONS TO AVOID:** Material not known to polymerize

SECTION IX - REGULATORY INFORMATION

This MSDS is in compliance with the OSHA Hazard Communication Standard 29CFR1910.1200. This MSDS has also been prepared to be in compliance with the Commonwealth of Pennsylvania's Right-to-Know regulations for chemical manufacturers and should satisfy many other state Right-to-Know laws.

The chemical ingredient reporting rules for Pennsylvania are more detailed than OSHA regulations and this MSDS lists the common chemical name and CAS number in Section II for:

Specifically hazardous ingredient	>0.01%	(OSHA is >0.1%)
Hazardous ingredient	>1.0%	(OSHA is the same)
Nonhazardous ingredient	>3.0%	(OSHA does not regulate)

SECTION IX - REGULATORY INFORMATION Cont...
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PROPRIETARY entered in the CAS number column declares that the exact identity of the ingredient(s) listed is proprietary information to United Color Manufacturing, Inc. and/or to our suppliers. Percentages of ingredients are approximate values for the purpose of hazard and SARA determination by the product's uses and are not necessarily exact specifications.

TSCA INVENTORY STATUS: All ingredients in this product appear on the TSCA inventory.
 EC CLASSIFICATION: Classified as flammable liquid under EC criteria as per DOT Regulations in SECTION IV.
 EINECS: All components in compliance.
 California Proposition 65: Contains ethyl benzene. Recognized by State of California as a carcinogen.

TRANSPORTATION:
 DOT Shipping Description:
 Xylenes Solution
 Hazard Class 3, UN1307, III

IATA/IMDG: As above

DSL: All Components registered. Under WHMIS: Class B, Division 2 – Flammable Liquid
 CERCLA: If this product is accidentally spilled, the incident maybe subject to the provisions of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and must be reported to the National Response Center by calling 800-424-8802. This product contains Xylenes.

SARA TITLE III: Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories: Delayed Health. This information may be subject to the provisions of the Community Right-To-Know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met. This product contains the following Section 313 Reportable Ingredients:

<u>Component</u>	<u>CAS NO.</u>	<u>Maximum %</u>	<u>Threshold Spillage (LBS)</u>
Xylene & Ethylbenzenes	1330-20-7	34.0	294

SECTION X - SPILL OR LEAK PROCEDURES

STEPS FOR MATERIAL SPILLAGE: Remove all sources of ignition (flame, hot surfaces and any producers of electrical, static or frictional sparks). Wear appropriate protective clothing (See Section XI). Ventilate area and try to contain spill by diking with sand or other absorbent material. Collect spill for disposal be scooping up liquids (if a large spill) and absorbing with sand or other approved absorbent materials and dispose of in accordance with local, state and federal regulations.

WASTE DISPOSAL METHODS: Dispose of in accordance with local, state and federal regulations.

SECTION XI - SPECIAL PROTECTION INFORMATION

- RESPIRATORY PROTECTION:** OSHA/NIOSH approved self-contained breathing apparatus or vapor cartridge respirator. (Must be worn if PEL & TLV levels are exceeded)
- VENTILATION:** Provide adequate cross air ventilation to keep dust and/or vapor levels below the PEL & TLV values. (See: Section V)
- PROTECTIVE GLOVES:** Impervious gloves (rubber or neoprene) to avoid direct skin contact.
- EYE PROTECTION:** Splash proof safety goggles
- OTHER PROTECTIVE EQUIPMENT:** Eyewash station, emergency shower.

SECTION XII - SPECIAL PRECAUTIONS**HANDLING AND SPECIAL PRECAUTIONS:**

- Overheating may cause container to rupture. Use explosion-proof electrical equipment.
- Container must be kept closed and ventilation provided to prevent vapor concentration buildup.
- Store in a cool, dry place. Do not breathe vapor or get liquid in eyes or on skin or clothing.
- Keep away from heat or sources of ignition.

OTHER PRECAUTIONS:

- Check all containers for leaks. Wear protective clothing as in Section XI. Avoid prolonged breathing of vapors or contact with skin. Ensure that all equipment is grounded to prevent static discharge. Containers of this material may be hazardous when emptied due to solid or vapor residue. All hazard precautions given in this data sheet must be observed for empty containers.

SECTION XIII - CONTACT INFORMATION

- TECHNICAL CONTACT PERSON:** Dr. Michael P. Hinton
- TECHNICAL CONTACT NUMBER:** Telephone 215-860-2165
Fax 215-860-8560