Material Safety Data Sheet

Prepared in accordance with ISO 11014-1/ANSI standard Z400.1-2004

Print Date Oct-17-2012 **Revision Date** Oct-17-2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product code **IN-ADE362**
Product name **Warm Red**
Product category ADE Series Epoxy Screen Ink

Manufacturer or supplier's details
UNITED STATES
The Hitt Companies, Inc.
3231 W. MacArthur Blvd.
Santa Ana, CA 92704
Tel: 1-714-979-1405
Tel: 1-800-969-6699
Fax: 1-714-979-1407

Emergency Telephone Number
USA: 1-800-969-6699
Outside USA: 1-714-979-1405

Website: www.HittMarking.com
MSDS Information: 1-714-979-1405 Ext. 102
MSDS Contact: Regulatory Compliance
email: Sales@HittMarking.com

2. HAZARDS IDENTIFICATION

This product is a preparation. Health hazard information is based on its components.

Appearance Colored liquid
Flammable Properties Combustible liquid and vapor.
Emergency Overview Irritant. May cause drowsiness and dizziness.

Eyes May cause eye irritation.
Skin May cause skin irritation and/or dermatitis.
Inhalation May cause irritation of respiratory tract. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Dipropylene Glycol Monomethyl Ether	34590-94-8	10 - 30
Diacetone alcohol	123-42-2	5 - 10
Propylene glycol monomethyl ether	107-98-2	5 - 10
2-Butoxyethanol	111-76-2	1 - 5

4. FIRST AID MEASURES

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

Skin Contact Wash off immediately with soap and plenty of water. Use a mild soap if available. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation develops, get medical attention.

Inhalation If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Flammable Properties Combustible liquid and vapor.

Suitable Extinguishing Media Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Keep away from fire, sparks and heated surfaces. Cool containers / tanks with water spray. Fire or intense heat may cause violent rupture of packages.

Specific Hazards Arising from the Chemical Thermal decomposition can lead to release of irritating gases and vapours. Burning produces obnoxious and toxic fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Remove all sources of ignition. Ventilate the area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Methods for Cleaning Up Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not use sparking tools.

Environmental Precautions Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. When using do not smoke. Do not take internally. Harmful or fatal if swallowed. Take notice of the directions of use on the label.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Ontario TWAEV	Mexico OEL (TWA)
Dipropylene Glycol Monomethyl Ether	TWA: 100 ppm STEL: 150 ppm Skin	TWA: 100 ppm TWA: 600 mg/m^3 STEL: 150 ppm STEL: 900 mg/m^3 Skin	600 ppm	TWA: 100 ppm STEL: 150 ppm Skin	TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 60 mg/m^3 STEL/LMPE-CT: 150 ppm STEL/LMPE-CT: 900 mg/m^3
Diacetone alcohol	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m^3	1800 ppm (10% LEL)	TWA: 50 ppm TWA: 240 mg/m^3 STEL: 75 ppm STEL: 360 mg/m^3	TWA/LMPE-PPT: 50 ppm TWA/LMPE-PPT: 240 mg/m^3 STEL/LMPE-CT: 75 ppm STEL/LMPE-CT: 360 mg/m^3
Propylene glycol monomethyl ether	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 360 mg/m^3 STEL: 150 ppm STEL: 540 mg/m^3		TWA: 100 ppm STEL: 150 ppm	

2-Butoxyethanol	TWA: 20 ppm	TWA: 25 ppm TWA: 120 mg/m^3 TWA: 50 ppm TWA: 240 mg/m^3 Skin	700 ppm	TWA: 20 ppm	TWA/LMPE-PPT: 26 ppm TWA/LMPE-PPT: 120 mg/m^3 STEL/LMPE-CT: 75 ppm STEL/LMPE-CT: 360 mg/m^3

Engineering Measures Use ventilation adequate to keep exposures below recommended exposure limits. See MSDS. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal Protective Equipment

Respiratory Protection Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Respirator with a vapour filter.

Eye Protection Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields. Goggles. Face-shield.

Skin Protection Wear protective gloves/clothing. Solvent-resistant apron and boots.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colored liquid	**Physical State**	Liquid
Odor	Characteristic	**Odor Threshold**	No information available
pH	No information available	**Autoignition Temperature**	No information available
Boiling point/Boiling Range	>149 °C / >300 °F	**Melting Point/Range**	No information available
Freezing Point/Range	No information available	**Solubility**	No information available
Evaporation Rate	No information available	**Partition Coefficient (n-octanol/water)**	No information available
Vapour Pressure	No information available	**Vapour Density**	Heavier than air
Flammability (solid, gas)	No information available		

Flammability Limits in Air

Upper No information available

Lower No information available

Flash Point	52 °C / 125 °F	**Photochemically Reactive**	No
Method	Setaflash closed cup		

Weight Per Gallon (lbs/gal)	9.14	**Specific Gravity**	1.1
VOC by weight % (less water)	36.32	**VOC by volume % (less water)**	37.2
VOC lbs/gal (less water)	3.32	**VOC grams/liter (less water)**	398.18

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.

Conditions to Avoid Heat, flames and sparks.

Incompatible Products Strong acids. Strong bases. Strong oxidizing agents. Reducing agents.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapours. Carbon dioxide (CO2). Carbon monoxide.

Possibility of Hazardous Reactions None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dipropylene Glycol Monomethyl Ether	5230 mg/kg (Rat)	9500 mg/kg (Rabbit)	
Diacetone alcohol	4 g/kg (Rat)	13500 mg/kg (Rabbit)	
Propylene glycol monomethyl ether	5200 mg/kg (Rat)	13000 mg/kg (Rabbit)	54.6 mg/L (Rat) 4 h >24 mg/L (Rat) 1 h
2-Butoxyethanol	470 mg/kg (Rat)	2270 mg/kg (Rat) 220 mg/kg (Rabbit)	2.21 mg/L (Rat) 4 h 450 ppm (Rat) 4 h

Chronic Toxicity

Component	ACGIH	IARC	NTP	OSHA
2-Butoxyethanol	A3			

ACGIH: (American Conference of Governmental Industrial Hygienists) *A3 - Animal Carcinogen*

Sensitisation No information available
Mutagenic Effects No information available
Reproductive Effects No information available
Developmental hazard No information available
Teratogenicity No information available
Chronic Effects Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system.
Target Organ Effects Blood, Central nervous system, Eyes, Hematopoietic System, Kidney, Liver, Respiratory system, Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

We have no quantitative data concerning the ecological effects of this product. Should not be released into the environment.

Component	Algae	Fish	Water Flea
Dipropylene Glycol Monomethyl Ether		96h LC50 Pimephales promelas: >10000 mg/L [static]	48h LC50 Daphnia magna: 1919 mg/L
Diacetone alcohol		96h LC50 Lepomis macrochirus: 420 mg/L 96h LC50 Lepomis macrochirus: 420 mg/L [static]	24h EC50 Daphnia magna: 8750 mg/L
Propylene glycol monomethyl ether		96h LC50 Leuciscus idus: 4600 - 10000 mg/L [static] 96h LC50 Pimephales promelas: 20.8 g/L [static]	48h EC50 Daphnia magna: 23300 mg/L
2-Butoxyethanol		96h LC50 Lepomis macrochirus: 1490 mg/L [static] 96h LC50 Lepomis macrochirus: 2950 mg/L	24h EC50 Daphnia magna: 1698 - 1940 mg/L 48h EC50 Daphnia magna: >1000 mg/L

Persistence and Degradability No information available
Bioaccumulation No information available
Mobility in Environmental Media No information available

Component	log Pow
Dipropylene Glycol Monomethyl Ether	-0.064
Diacetone alcohol	1.03
Propylene glycol monomethyl ether	-0.437
2-Butoxyethanol	0.81

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of contents/container in accordance with local regulation.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

UN1210, Printing Ink, 3, III
In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language Part 1.33].

ICAO/IATA

UN1210, Printing Ink, 3, III

IMDG/IMO

UN1210, Printing Ink, 3, III

15. REGULATORY INFORMATION

International Inventories

Listed on TSCA. For further information, please contact: Manufacturer, importer, supplier

U.S. Federal Regulations

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
2-Butoxyethanol	111-76-2	1 - 5	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

U.S. State Regulations

Component	Massachusetts Right To Know	Minnesota Right To Know	New Jersey Right To Know	Pennsylvania Right To Know
Dipropylene Glycol Monomethyl Ether	X	X	X	X
Diacetone alcohol	X	X	X	X
Propylene glycol monomethyl ether	X	X	X	X
2-Butoxyethanol	X	X	X	X

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

Component	WHMIS Classifications of Components
Dipropylene Glycol Monomethyl Ether	B3
Diacetone alcohol	B3,D2B
Propylene glycol monomethyl ether	B2
2-Butoxyethanol	B3,D1A,D2B

Component	NPRI - National Pollutant Release Inventory
Dipropylene Glycol Monomethyl Ether	Part 4 Substance
Diacetone alcohol	Part 4 Substance

Propylene glycol monomethyl ether	Part 4 Substance
2-Butoxyethanol	Part 4 Substance Part 1, Group 1 Substance Part 5, Individual Substance

Regulation (EC) No. 1907/2006 (REACH), Article 57

This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57)

HMIS:	**Health**	**Flammability**	**Reactivity**	**PPE**
	1 *	2	0	X

16. OTHER INFORMATION

Revision Date Oct-17-2012

Revision Note New MSDS format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of MSDS