



# SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**UVOC285**  
**UNIVERSAL DARK THINNER**  
**UV CURABALE SCREEN PRINTING INK**

North America:  
**NOR-COTE INTERNATIONAL, INC.**  
506 Lafayette Avenue  
Crawfordsville, Indiana 47933 USA  
Phone: 765-362-9180 (day phone)  
MSDS Issuer: EHS Department  
**Emergency Phone (United States):**  
**800-424-9300**  
**CHEMTREC**

Europe:  
**NOR-COTE INTERNATIONAL LTD.**  
Unit 8 Warrior Park  
Eagle Close  
Chandlers Ford Industrial Estate  
Eastleigh, Hampshire  
SO53 4NF England  
Tel: +44 (0) 23 80270542 (day phone)  
**Emergency Phone (Outside U.S.):**  
**703-527-3887 CHEMTREC**

Asia:  
**NOR-COTE INTERNATIONAL PTE. LTD.**  
Blk 4012 Ang Mo Kio Ave 10  
#05-08 Techplace 1  
Singapore 569628  
Tel: +65 6291-0898 (day phone)  
**Emergency Phone (Outside U.S.):**  
**703-527-3887 CHEMTREC**

## SECTION 2 HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Product is a liquid with mild acrylic odor that is unstable (reactive) upon depletion of inhibitor. Product causes eye and skin irritation and may cause allergic skin reaction.

**PRIMARY ROUTES OF ENTRY:** Eyes, Skin

### ACUTE HEALTH EFFECTS:

- **Skin Contact:** Moderate irritant to skin – symptoms include localized redness or rash, blistering and swelling of the affected area. Prolonged contact with this material may cause a more severe skin response. Repeated exposure may cause sensitization which is an allergic response of the skin.
- **Skin Absorption:** Exposure to this material can result in absorption through skin causing health hazard.
- **Eye Contact:** Moderate irritant to eye - symptoms include burning sensation, tearing, redness or swelling.
- **Inhalation:** No significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material. However, aerosols or vapors which may be generated at elevated processing temperatures may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath.
- **Ingestion:** No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of ingestion.

**CHRONIC HEALTH EFFECTS:** See Section 11

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** This material or its emissions may defat skin, cause contact dermatitis, or otherwise aggravate existing skin disease.

**HMIS ® RATING:** Health - 2 Flammability -1 Physical Hazard - 1 PPE - D

## SECTION 3 COMPOSITION

INGREDIENT	PERCENT BY WEIGHT	CAS#	EC#	Symbol	Risk Phrase
Trimethylolpropane Triacrylate (TMPTA)	12-14%	15625-89-5	239-701-3	Xi	R36/38, R43
1,6 Hexanediol Diacrylate	60-62%	13048-33-4	235-921-9	Xi	R36/38, R43
Photoinitiator	25%	Proprietary	Proprietary	None	None

## SECTION 4 FIRST AID MEASURES

**SKIN CONTACT:** Remove and isolate contaminated clothing and shoes. Remove excess material from skin with clean cloth. Flush skin with running lukewarm water. Wash affected areas using mild soap.

**EYE CONTACT:** Flush the eye and under lids with warm water for 15 minutes. Remove any contact lenses during the flushing. Get immediate medical attention if symptoms persist.

**INHALATION:** Move subject to fresh air and keep warm. If subject is not breathing, administer artificial respiration. If breathing is difficult, have qualified personnel administer oxygen and get medical attention.

**INGESTION:** If appreciable quantities are swallowed, seek immediate medical attention. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.



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## SECTION 5 FIRE FIGHTING MEASURES

**FLASHPOINT:** > 93C/200F      **METHOD:** PMCC  
**FLAMMABLE/EXPLOSIVE LIMITS (Volume % in air):** Not established  
**EXTINGUISHING METHOD:** Water fog, carbon dioxide (CO<sub>2</sub>), foam, water spray or dry chemical  
**AUTO-IGNITION TEMPERATURE:** Not established

**FIRE AND EXPLOSION HAZARDS:**

High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during runaway polymerization.

**SPECIAL FIREFIGHTING PROCEDURES:**

Evacuate area of all non-emergency personnel. Fire fighters must wear full emergency equipment with self-contained breathing apparatus. At elevated temperatures hazardous polymerization may occur causing container rupture and in extreme cases, explosion. Fight fires from upwind and cool intact containers with water spray or stream at maximum range.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

Spilled or released material may polymerize and release heat/gases. Remove all sources of ignition and ventilate area. Avoid skin and eye contact. Use respiratory protection. Dike and cover large spills. Absorb with inert materials such as dry clay or sand and place in closed container for disposal as solid waste in accordance with all applicable regulations.

## SECTION 7 HANDLING AND STORAGE

**HANDLING:** Avoid any unnecessary contact. Use protective clothing specified in Section 8.

**STORAGE:** Store away from heat and sunlight to prevent spontaneous polymerization. Store at temperatures greater than product's freezing point and below 38C/100F. Store in tightly closed containers in a properly vented storage area away from heat, sparks, open flame, strong oxidizers, radiation, and other initiators. Prevent contamination by foreign materials and moisture contact. Use only non-sparking tools and limit storage time.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE LIMITS:** A PEL or TLV has not been established.

Component	Exposure Limit
TMPTA	AIHA WEEL: 1mg/m <sup>3</sup> skin
HDODA	AIHA WEEL: 1mg/m <sup>3</sup> skin, DSEN

**ENGINEERING/VENTILATION CONTROLS:** If handling results in aerosol or vapor generation, local exhaust ventilation is recommended.

**HAND PROTECTION:** Use nitrile, butyl or other gloves that are resistant to chemicals in Section 2. Replace immediately if punctured or torn or when a change of appearance (color, elasticity, shape) occurs. A minimum of 0.45mm thick gloves for long duration exposure (up to 4 hours) or mechanical handling activities; single use, disposable gloves for short duration exposures not exceeding 30 minutes or where splashes are likely, are recommended.

**EYE PROTECTION:** Use splash-proof safety goggles or safety glasses that are ANSI approved to prevent eye contact. Eyewash availability is also recommended.

**SKIN PROTECTION:** Protective or disposable outer clothing is recommended to cover where skin contact is likely. Emergency shower availability is also recommended.

**RESPIRATORY PROTECTION:** Respiratory protection may be necessary depending on conditions of use. If this material is handled at elevated temperature or under mist forming conditions, NIOSH/MSHA approved respiratory protection equipment should be used.

**OTHER WORK PRACTICES:** Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE, ODOR & PHYSICAL STATE:** Clear liquid with mild acrylic odor.

**BOILING POINT (°F):** Not available

**FREEZING POINT:** Not established

**SPECIFIC GRAVITY:** Not established



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**EVAPORATION RATE:** Not available  
**VAPOR PRESSURE (mm Hg):** Not established  
**VAPOR SP GR:** greater than 1  
**SOLUBILITY IN WATER:** Negligible  
**VOLATILE CHARACTERISTICS:** Negligible  
**pH:** 6.8-7.2  
**DENSITY:** 3.918 kg/gallon

## SECTION 10 REACTIVITY / STABILITY HAZARD DATA

**STABILITY:** This material is stable under recommended storage and handling conditions.

**CONDITIONS AND MATERIALS TO AVOID:** High temperatures, localized heat sources (i.e. drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing; Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

**HAZARDOUS POLYMERIZATION:** Under certain conditions (excess temperatures and contamination) hazardous polymerization may occur. Avoid high temperature and contamination with foreign materials.

## SECTION 11 TOXICOLOGICAL INFORMATION

Not toxicological determination has been made for the mixture.

### TMPTA Toxicological Data:

**Oral LD50 (rat):** >5,000 mg/kg, non-toxic

**Dermal LD50 (rabbit):** 5,170 mg/kg, non-toxic

**Inhalation LC50 (rat):** 6 h, non-toxic, no mortalities after inhalation exposure

**Eye irritation (rabbit):** Moderately irritating

**Skin irritation (rabbit):** Moderately irritating to skin

**Skin sensitization (guinea pig):** Produced no dermal sensitization.

**Skin sensitization (human experience):** Predictive patch testing on human volunteers did not produce dermal sensitization.

**Repeat Dose Toxicity (rabbit):** dermal, 2 weeks, causes skin burns

**Developmental Toxicity (rat):** Diet, no treatment-related effects were observed.

**Carcinogenicity (mouse):** Dermal, no tumors

**Mutagenicity:** Both positive and negative responses observed in standard tests for genetic changes.

### HDODA Toxicological Data:

**Oral LD50 (rat):** >2000 mg/kg

**Dermal LD50 (rabbit):** >2000 mg/kg

**Mutagenicity:** Mouse lymphoma test and Ames test positive

**Carcinogenicity:** No increased incidence of skin and visceral tumors

Not fetotoxic or teratogenic when administered orally to mice at a maternally toxic dose

## SECTION 12 ECOLOGICAL INFORMATION

No ecological determination has been made for the mixture.

### TMPTA Environmental Toxicity:

Invertebrates 48h, LC50 Water flea (Daphnia magna) 10.4 mg/l

Fish 96h, LC50 Fish 3.1 mg/l

Algae EC50 Algae 1.1 mg/l

### TMPTA Environmental Fate:

Partitioning coefficient (octanol/water) 724

Bioconcentration factor (BCF) 31.94

## SECTION 13 DISPOSAL CONSIDERATIONS

Non-contaminated, properly inhibited product is not a RCRA hazardous waste. It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Dispose of this product in accordance with all applicable laws and regulations. His product should not be dumped, spilled, rinsed or washed into sewers or public waterways.



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## SECTION 14 TRANSPORTATION INFORMATION

Transport this product in accordance with all applicable laws and regulations. This product, as supplied, is not regulated nor classified as a hazardous material/dangerous good by United States Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), or the Canadian Transportation of Dangerous Goods Act (TDG).

## SECTION 15 REGULATORY INFORMATION

This Material Safety Data Sheet has been formatted to the best of our ability in accordance with American National Standards Institute (ANSI), European Communities (EC), and contains hazard criteria and all information required by the Canadian Controlled Products Regulation (CPR).

**Global Inventory Status:** All Components of this product are currently in compliance with the following inventories: US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, and Chinese.

### Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III:

**Section 302 – Extremely Hazardous Substances (EHS):** This product is not regulated as an EHS.

**Section 304 - CERCLA:** This product is not regulated for emergency release notification.

**Section 311/312 – Hazard Communication Standard (HCS):** Immediate, delayed and reactive hazard.

**Section 313 – Toxic Chemical List (TCL):** This product contains the following components that are regulated under the Toxic Chemical Release Reporting requirements 40 CFR 372: None

## SECTION 16 OTHER INFORMATION

**HMIS® ratings** are a registered trade and service mark of the National Paint and Coatings Association with the following scale:

* = Chronic health effect	PPE Index
4 = Severe Hazard	A = Safety Glasses
3 = Serious Hazard	B = Safety Glasses and Gloves
2 = Moderate Hazard	C = Safety Glasses, Gloves and Protective Apron
1 = Slight Hazard	D = Face Shield, Gloves and Protective Apron
0 = Minimal Hazard	E = Safety Glasses, Gloves and Respirator

### EU Risk Phrases

R21 = Harmful in contact with skin

R22 = Harmful if swallowed

R36/37/38 = Irritating to eyes, respiratory system and skin.

R43 = May cause sensitization by skin contact.

R50: Very toxic to aquatic organisms

R51: Toxic to aquatic organisms

R52: Harmful to aquatic organisms

R53: May cause long-term adverse effects in the aquatic environment

### Definitions

TWA – Time Weighted Average

TLV – Threshold Limit Value

STEL – Short Term Exposure Limit

CAS# - Chemical Abstract Service Number

NTP – National Toxicology Program

PEL – Permissible Exposure Limit

IARC - International Agency for Research on Cancer

ANSI – American National Standards Institute

AIHA – American Industrial Hygiene Association

WEEL – Workplace Environmental Exposure Level

Supersedes: June-26-2007

**Disclaimer:** To the best of our knowledge, the product information contained herein is based upon data believed to be reliable, however Nor-Cote makes no warranty and disclaims any liability whatsoever for its accuracy or completeness. Since the actual use of the product is beyond our control, no guarantee expressed or implied, is made by Nor-Cote as to the effects of such uses nor does Nor-Cote assume liability arising out of the use of this product by others. It remains the responsibility of the user to ensure that the use of the product herein is in accordance with all applicable laws and regulations.