



U.S. Material Safety Data Sheet
 European Safety Data Sheet

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Product: HiDef™ ink		Page 1 of 4

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Section 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Identifier: HiDef™ Ink Jet Ink
 Manufacturer: **TRIDENT an ITW Company**
1114 Federal Road
Brookfield, CT 06804-1140

Telephone: +1 203-740-9333 Fax: +1 203-740-3527
 EMERGENCY: Call CHEMTREC United States 1-800-484-9300/ International 1-703-527-3887

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Description: A black liquid ink.

COMPONENT	CAS#	%[wt./wt.]	OSHA PEL	ACGIH TLV	DFG MAK	Symbol	R-Phrase
Oleic acid	112-80-1	30-40	N.E.*	N.E.	N.E.	Xi	R36/37/38
Fatty ester	Proprietary	50-60	N.E.	N.E.	N.E.	None	None
Azine compound	Proprietary	10-20	N.E.	N.E.	N.E..	None	None

* Not established.

Section 3: potential health effects. Section 11: available toxicity information. Section 15: regulatory information.

Section 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Irritating to eyes, skin and respiratory tract.

HAZARD RATING NFPA: Health 1 Flammability 1 Reactivity 0

POTENTIAL HEALTH AFFECTS

EYE CONTACT: This ink is a mild eye irritant.
SKIN CONTACT: This ink is a mild skin irritant..
INGESTION: This ink is not a serious ingestion hazard,
INHALATION: This ink is not a serious acute hazard however, it is irritating to mucus membranes and the upper respiratory system.
CHRONIC: May cause dermatitis after prolonged and repeated exposure.

Section 4: EMERGENCY AND FIRST AID MEASURES

EYE CONTACT: Immediately flush with water, remove contact lenses, flush with copious amounts of water for 15 minutes lifting eyelid to ensure thorough rinsing. Seek medical advice.
SKIN CONTACT: Immediately wash with soap and copious amounts of water. Remove and launder contaminated clothing.
INGESTION: Swallowing less than an ounce will not cause significant harm and does not require any emergency treatment. Nothing should be administered orally to a victim who is losing consciousness, unconscious or convulsing. Do not induce vomiting. For larger amounts, give 2-4 glasses of water to drink to a conscious patient. Seek medical advice.
INHALATION: Remove to fresh air. If breathing is difficult, give oxygen. If cough or other symptoms occur, seek medical attention.
 In any case of persistent irritation, seek medical advice.

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SECTION 5: FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD:
 >365° F(185°C) COC estimated

FLAMMABLE LIMITS: Not established

AUTOIGNITION TEMPERATURE:
 Not established.

EXTINGUISHING MEDIA: Dry chemical, Carbon Dioxide, regular foam.

SPECIAL FIRE FIGHTING PROCEDURES:
 Use self-contained breathing equipment to protect against potential toxic and irritating contaminants that may be present in decomposed products.

UNUSUAL FIRE & EXPLOSION HAZARDS:
 None known

HAZARDOUS DECOMPOSITION PRODUCTS:
 CO, CO₂ & oxides of Nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

GENERAL: Wear appropriate respiratory protection and protective clothing.

SPILL: Contain, collect and store in secure container for approved incineration in compliance with local, regional, and national regulations.

SECTION 7: HANDLING AND STORAGE

Keep away from children. Store in cool, dry [40-120°F (4-49°C)], dark, well-ventilated area in tightly closed containers.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

EXPOSURE LIMITS: None established for ink.

ENGINEERING CONTROLS (ventilation):
 Mechanical exhaust.

PERSONAL PROTECTION:

RESPIRATORY: Not required under normal operating conditions and with good mechanical exhaust.

SKIN PROTECTION: Chemical resistant gloves and protective clothing.

EYE PROTECTION: Safety glasses with shields or goggles.

OTHER: Need eyewash and safety shower nearby.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: black liquid with mild characteristic odor.

FLASH POINT: >365°F C.O.C.(Est.)	AUTOIGNITION TEMP: N/E
FLAMMABLE LIMITS: N/E	FREEZING/MELTING POINT: <10 (est.)
VAPOR PRESSURE: < 0.1(est)	EVAPORATION RATE: (n-butyl acetate = 1) negligible
SPECIFIC GRAVITY: 0.96 approx.	VAPOR DENSITY: 4.6(est)
SOLUBILITY: slight	BOILING POINT: > 365°F (185°C).
pH: 5.6 approx	PERCENT VOLATILES: <90 est.
VISCOSITY: approx. 49cps@ 25°C	

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SECTION 10: STABILITY & REACTIVITY

STABILITY: Stable HAZARDOUS POLYMERIZATION: Will not occur
 CONDITIONS TO AVOID: Excessive heat or light.
 INCOMPATIBILITY: Strong oxidizing agents and strong alkalis.
 HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:
 Oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: This ink has not been tested for acute toxicity
 COMPONENTS: *Fatty ester* LD50 (Oral, rat)>16g/kg *oleic acid* LD50 (oral, rat)74g/kg *Azine compound* LD50 (oral, rat)>5g/kg
 LD50 (ivn, rat)2.4 mg/kg
 LD50 (ipr, mus)282 mg/kg
 LD50(oral, male albino Rat)>21.5 ml/kg
 LD50 (ivn, mus)230 mg/kg
 SUBCHRONIC EFFECTS: No data
 CHRONIC EFFECTS/CARCINOGENICITY:
 COMPONENTS LISTED AS CARCINOGENS BY REGULATORY AGENCIES:
 OSHA: NONE LISTED IARC: NONE LISTED NTP: NONE LISTED.
 MUTAGENICITY: Not tested for mutagenic effects.
 REPRODUCTIVE EFFECTS: Not test for reproductive effects.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data.
 CHEMICAL FATE INFORMATION: No data.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of according to appropriate local, regional and national laws or regulations. Do not reuse "Empty containers". Incineration in an approved facility with after burner and scrubber is recommended.

SECTION 14: TRANSPORT INFORMATION

GROUND TRANSPORT: Not regulated.
 AIR TRANSPORT: Not regulated.
 OCEAN TRANSPORT: Not regulated.

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SECTION 15: REGULATORY INFORMATION(Not meant to be all inclusive)

UNITED STATES

This product does not contain any ozone depleting substances (ODS), nor were any ODSs used in the manufacture of this product.

Raw materials used to make the ink do not contain mercury, lead, cadmium or hexavalent chromium and none are added during manufacture.

TSCA All components are listed on the TSCA inventory.

SARA (Superfund Amendments Reauthorization Act) Title III 1986

Section 311 & 312 and 40CFR355: Chemicals present in this product which require emergency planning based on TPQ (Threshold Planning Quantities) and RQs (Reportable Quantities):

-----none

Section 313 and 40CFR372: Chemicals present that could require submission of annual reports of release of toxic chemicals:

-----none

CAAA - Components of this ink listed in the Clean Air Act Amendment of 1990.....none

STATE REGULATIONS:

California Proposition 65: Components present in this product known by the state of California to cause cancer..... **less than 0.1% aniline**

California Proposition 65: Components present in this product known by the state of California to cause birth defects, or other reproductive harm:-----**none**.

California SCMQAD: As defined by this law, the concentration of VOCs in this ink is estimated to be < 95 %.

Massachusetts 105CMR670 Right to Know Substance List (MSL): Components which could require reporting under this statute are:-----**none**

New Jersey Registration #TRDTINTL-978009

CANADA

DSL /nDSL

All components are listed.

WHMIS Rating

D2B

EUROPEAN UNION

EINECS Status:

All components are in compliance with European Inventory requirements.

CLASSIFICATION:

This product is classified as an irritant based on criteria found in EU Directives 67/548 and 88/379. [Xi; R36/37/38 S23, S51]

SECTION 16: OTHER INFORMATION

REVISION SUMMARY: Revised format to include Europe and Canada, January, 1996. This SDS is written in compliance with Directive 93/112 EC.
 Revised August, 1997; new information in Sections 1, 2,3,4,9, 11&15.
 Revised June 7, 1998 to include Canadian WHMIS rating in section 15.
 Revised September 9, 1998: revised information in sections 2 & 15.
 Revised October, 1998 to correct information from Sections 3,5, & 9
 Revised January, 1999. Changes in Sections 1,2,3,4,5,&15.
 Revised April, 1999: corrections to section 2.
 Revised July 12, 2000; correction to Section 15
 Revised May 1, 2007: Changes to section 1,2,3, 4,11 &15

This information and recommendations contained in this document are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to this information.

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