

Product: AlphaMark Ink
Date: February 2, 2009
Replaces Version Date: January 2, 2003
Page: 1 of 4
Rev A
Noted Date For Compliance

U.S. MATERIAL SAFETY DATA SHEET

EUROPEAN SAFETY DATA SHEET

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: AlphaMark Ink
SUPPLIER: Loveshaw, an ITW Company
2206 Easton Turnpike, Box 83
South Canaan, PA 18459
TELEPHONE: 570-937-4921 FAX: 570-937-3229
EMERGENCY: Call CHEMTREC Unites States: 1-800-424-9300 International: 202-483-7616

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

DESCRIPTION: A black fatty ester based liquid ink with fatty acid co-solvent.

| COMPONENT | CAS# | %[wt./wt.] | OSHA ACGIH DFG | | | Symbol | R-Phrase |
|----------------|-------------|------------|----------------|------|------|--------|-----------|
| | | | PEL | TLV | MAK | | |
| Oleic acid | 112-80-1 | 50-60 | N.E.* | N.E. | N.E. | Xi | R36/37/38 |
| Fatty ester | Proprietary | 30-40 | 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: 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. May cause redness and burning.
Skin Contact This ink is a mild skin irritant. May cause redness, swelling, pain.
Ingestion This ink is not a serious ingestion hazard, however, ingestion can cause irritation to the mucus membranes.
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.

Product: AlphaMark Ink
Page: 2 of 4
Rev A

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, and regular foam.
SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing equipment to protect against potential toxic and irritating contaminated that may be present in decomposed products.
UNUSUAL FIRE & EXPLOSION HAZARDS: None known
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂ and 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 AND 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 COC (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 @25sec: 49 cps approx

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.

Product: AlphaMark Ink
Page: 3 of 4
Rev A

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: This ink has not been tested for acute toxicity.

| | | |
|---------------------------|---|--------------------------|
| COMPONENTS: Fatty ester | Oleic acid | Azine compound |
| LD50 (oral, rat) > 16g/kg | LD50 (oral, rat) 74g/kg | LD50 (oral, rat) > 5g/kg |
| | LD50 (ivn, rat) 2.4mg/kg | |
| | LD50 (ipr, mus) 282mg/kg | |
| | LD50 (oral, male albino rat) >21.5ml/kg | |
| | LD50 (ivn, mus) 230mg/kg | |

SUBCHRONIC EFFECTS: This ink has not been tested for mutagenic effects.

CHRONIC EFFECTS/CARCINOGENICITY:

Components listed as carcinogens by regulatory agencies:

OSHA – none listed IARC – none listed NTP – none listed

MUTAGENICITY: This ink was not tested for mutagenic effects.

REPRODUCTIVE EFFECTS: This ink has not been tested 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

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 ODS’s used in the manufacture of this product.

This ink has not been tested for heavy metals covered under the various CONEG laws. However, raw materials used to make the ink does not contain mercury, lead, cadmium or hexavalent chromium and none are added during manufacture.

TSCA (Toxic Substances Control Act): 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 Amendment of 1990:-----None

STATE REGULATIONS

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

Product: AlphaMark Ink
Page: 4 of 4
Rev A

SECTION 15: REGULATORY INFORMATION (NOT MEANT TO BE ALL INCLUSIVE), CONTINUED

CANADA

DSL/nods: q 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

The information and recommendations contained in this document are based on 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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