Under normal usage conditions these inks should pose no significant health hazard. However, no long history of safe use, as yet, has been determined. Consequently, Nazdar recommends that the following precautions be observed while emphasizing the role of plant supervision and management in enforcing these suggestions.

1) Operators must wear impervious gloves and protective glasses when working directly with UV inks. Operators working in the vicinity of UV inks, but not necessarily involved directly, should also wear protective glasses. Make sure secondary staff, such as janitors, are fully aware of hazards in handling UV waste material.

2) Printing equipment operators are recommended to wear impervious aprons and footwear in addition to gloves and protective glasses. The most likely times for bodily contact with UV inks are:
   a) When mixing UV inks.
   b) When thinning UV inks with UV diluent.
   c) When applying or pouring UV ink onto the press.
   d) While cleaning screens, equipment and utensils.

3) If an individual comes into contact with a UV curable product, follow these rules:
   a) Immediately flush eyes with copious amounts of cool water. Seek immediate medical attention. A Material Safety Data Sheet should be made available to the physician. Report incident to plant manager with minimum delay.
   b) Immediately wash skin with copious amounts of cool water. Use soap and water or other skin cleansing compounds to remove ink.
   c) NEVER try to remove UV ink from the skin by using solvent or thinner. Such action is likely to increase the possibility of undesirable effects.
   d) The presence or consumption of food, beverages or smoking materials should be banned from the work environment. Operators should wash their hands thoroughly prior to eating, drinking or smoking to eliminate accidental ingestion of UV curable material.

4) Garments and protective clothing, soiled with even small amounts of UV materials, should be discarded or laundered or dry cleaned in hot water and detergent, separately from other garments. Impervious aprons and boots may be wiped clean with small amounts of alcohol or ester based organic solvent cleaners (see manufacturer’s specific recommendations) in a well-ventilated area, away from sources of combustion/ignition. Badly contaminated or soiled articles should be disposed of safely.

5) Housekeeping should emphasize the necessity of cleaning up spills, cleaning of utensils such as measuring equipment, knives, stirrers and so on.

6) UV inks and materials should be used and stored in well-ventilated areas. UV inks should be stored in sealed plastic containers NEVER subject a UV ink to exposure of high temperatures or bright light. Any damaged or leaking container should be discarded in compliance with all federal, state and local regulations for hazardous waste disposal.

7) Ensure that the UV curing processor is in good condition, and in accordance with the manufacturer’s recommendations. Especially pay attention to cooling systems and electrical isolation equipment, light shields and ventilation equipment. Never expose a container of UV curable material to light emitted by the UV curing machine.

8) Ensure that plant operators are fully conversant with and trained in the use of the equipment and UV inks.

9) Make sure that all containers of UV ink have always at least 10% air space above the ink surface. Presence of air in UV inks extends their shelf-life.
10) Protect UV inks from any contaminants.
   a) Keep containers tightly closed.
   b) Avoid contamination with any chemical not specified for use with UV curables by Nazdar. Especially beware of strong acids and metals, and their salts.
   c) Protect UV ink from contamination by solvent inks.

11) Disposal of unusable UV curable inks and waste material contaminated with UV curable inks must comply with any local, state and federal regulations.

While every endeavor is made to verify the completeness and accuracy of this information, final safety in use rests on the user.

Nazdar Ink Technologies Offices
Nazdar Ink Technologies – World Headquarters
8501 Hedge Lane Terrace
Shawnee, KS 66227-3290 USA
Tel: +1 913-422-1888
Fax: +1 913-422-2296
E-mail: NazdarOrders@nazdar.com
Technical Support E-mail: InkAnswers@Nazdar.com

Nazdar LTD – Ink Technologies Division
Nazdar House
Battersea Road
Heaton Mersey Industrial Estate
Stockport, Cheshire SK4 3EA
United Kingdom
Tel: +44 161 442 2111
Fax: +44 161 442 2001
E-mail: NazdarOrders@nazdar.com
Technical Support E-mail: InkAnswers@Nazdar.com