



MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer's Name: Lancer Group International
311 Saulteaux Crescent
Winnipeg, Manitoba,
Canada R3J 3C7

Emergency Telephone Number: (204) 889-7422

Trade Name: Aquafix

Codes: AF

Chemical Family: Polyfunctional Aziridine

Product Use: Self-curing additive for water-based ink

WHMIS Classification: Class D-2A, Very Toxic; Class D-2B, Toxic

24 Hour Emergency Number: (613) 996-6666 CANUTEC
(Use in case of a dangerous goods emergency.)

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	Percentage (w/w)	TLV (ppm)	CAS#
Polyfunctional Aziridine	99.7	Not listed	064265-57-2
n,n-Dimethyl ethanolamine	0.3	Not listed	000108-01-0
Propyleneimine	<0.5 ppm	2 ppm (skin) ACGIH	000075-55-8

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview: Pale yellow liquid with mild amine odor, respiratory irritant, eye corrosive, corrosive to the gastrointestinal tract, moderate skin irritant, respiratory sensitizer, skin sensitizer

Potential Health Hazards

Eye: This product contains component/s which is eye corrosive based on animal studies

Skin: This product contains component/s which is moderate skin irritant based on animal studies. This product is likely to induce skin sensitization in humans. A component in this product is a known animal skin sensitizer.

Inhalation: Vapors and/or aerosols of this material will probably irritate mucous membranes, eyes, nose and respiratory passages. This material may induce respiratory allergy/sensitization. Symptoms include cough, tightness in chest, and/or asthmatic wheezing.

Ingestion: In humans, irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion of this material. Injury may be severe and cause death.

SECTION 4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with large quantities of running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used at this time. Continue the flushing for an additional 15 minutes if a physician is not immediately available.

Skin Contact: Wash skin with plenty of soap and water. If redness, itching or burning sensation develops, get medical attention.

Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is labored, give oxygen. Consult medical personnel.

Ingestion: Do not induce vomiting. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

SECTION 5. FIRE FIGHTING MEASURES

Flammability Properties

Flash Point (Closed Cup), °C: > 93

Hazardous Combustion Products: Oxide of Carbon and Nitrogen

Explosion Limits: No data

Explosion Data: No data

Extinguishing Media: Water fog, Foam, CO₂, Dry Chemical, Halogenated agents. Water may be used to cool closed containers to prevent pressure build-up.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus with full-face piece and protective clothing.

Unusual Fire and Explosion Hazards: Heat / impurities may increase temperature, build pressure or rupture closed containers, spreading fire and increasing the risk of burns/injuries.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Procedure if Material is Spilled or Released: Wear skin, eye, and respiratory protection during clean up. Contain spill. Soak up material with absorbent and shovel into a chemical waste container. Decontaminate area with 1% acetic acid solution or one part white vinegar to four parts water.

SECTION 7. HANDLING AND STORAGE

Handling: Open containers in well-ventilated areas to avoid exposure to residual propyleneimine that may have collected in the headspace. Avoid breathing vapors or aerosols. Prevent skin and eye contact. A sensitized individual should not be exposed to the product that caused sensitization.

Storage: Keep the container tightly closed in a cool, dry, well-ventilated area, away from heat, sources of ignition, direct sunlight, and acidic materials, anhydrides and strong oxidizers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Use permitted ventilation adequate to maintain safe levels. Provide general dilution or local exhaust ventilation to remove solid airborne particles of overspray during spray application and to remove decomposition products during welding or flame cutting on surfaces coated with this product.

Personal Protective Equipment (PPE)

Clothing: Take all precautions to prevent skin contact. Use gloves, arm covers and apron determined to be impervious under conditions of use. Additional protection, such as full body suit and boots may be required depending on conditions. Remove contaminated clothing and wash before re-wearing. Wash separately from other laundry. Neoresins employees use neoprene or nitrile gloves during manufacturing and packing of this product.

Eye Protection: Chemical tight goggles and full face shield

Respiration Protection: If needed, use NIOSH respirator for organic vapors, mists and fumes. Any person who may be exposed to this material in the form of an aerosol or mist from spray operations shall, at a minimum, wear a NIOSH approved, category 21C respirator, excluding single use or disposable types, in accordance with 30 CFR 11.130 Subpart K. The respirator shall be equipped with high efficiency particulate filters for maximum protection, unless an air-supplied respirator is selected. Use of this respirator shall be according to OSHA regulations at 29 CFR 1910-134 and 30 CFR 11, respectively. If a full-face type respirator is selected and worn, the chemical safety goggles requirement is waived during spray operations.

Others: Eyewash station and safety shower in work area

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Pale yellow liquid with mild amine odor

Boiling Range, °C: no data

Vapor Pressure (mm Hg @ 20°C): no data

Vapor Density (Air = 1): no data

Specific Gravity (Water = 1): 1.07

Solubility in water: Dispersable

Percent Volatile by volume: 1

pH: No data

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions. Unstable at elevated temperatures and pressures, or may react with water or acids with some release of energy, but not violent

Incompatibility (materials to avoid): acidic materials, anhydrides and strong oxidizers

Conditions of Reactivity: Avoid contamination with acidic materials, heat, direct sunlight, UV radiation, strong oxidizing conditions and freezing conditions

Hazardous Decomposition: Oxides of carbon and nitrogen

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity Data: The oral toxicity is between 500 and 5000 mg/kg. Relative to other materials, this material is classified as slightly toxic by ingestion.

Regulated carcinogen: This product contains no components present at concentration equal to or greater than 0.1% listed by IARC, OSHA, NTO or ACGIH as carcinogen

Mutagenicity: Positive mutagenicity activity has been reported on the aziridine compounds

SECTION 12. ECOLOGICAL INFORMATION

There is no known published data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Discarded product is not a hazardous waste under RCRA, but may be regulated by other jurisdictions. Incinerate in approved facility. Do not incinerate in closed containers. Dilute with clean, low viscosity fuel. Untreated material should not be released to the environment.

Container disposal: Empty container retains potentially hazardous residue. Observe all hazard precautions. It may contain corrosive material. Do not distribute, make available, furnish or reuse empty containers except from container and puncture or otherwise destroy empty containers before disposal.

SECTION 14. TRANSPORT INFORMATION

Canadian TDG Shipping Description: Not regulated

US DOT Classification: Not regulated

SECTION 15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of these products are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of these products are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available

SECTION 16. OTHER INFORMATION

DISCLAIMER: All information presented herein is given in good faith and is based on sources and tests are considered to be reliable but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product as well as to determine the suitability of this product for a specific purpose. We can make no warranty as to the results to be obtained in using the product. Therefore the user must assume all risk.

MSDS Prepared by: Discovery/Lancer Group

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