



MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT IDENTIFICATION

Product identifier: S.P.I.F. II

Product Number: 1090, 1092 & 1094

Product use: Ink remover for screen printing textiles.

Manufacturer's name and address: Refer to supplier

Supplier name and address:

ALBATROSS USA INC./EXPERT WORLDWIDE

36-41 36th Street
Long Island City, New York
United States
11106
718-392-6272

5439 San Fernando Road West
Los Angeles, California
United States
90039
818-543-5850

Emergency Telephone #: Chemtrec (Day or Night) 800-424-9300
(For Chemical Emergency: Spill, Leak, Fire, Exposure or Accident)

This MSDS complies with 29CFR 19190.1200 (Hazard Communication Standard) and WHMIS regulations.
IMPORTANT: Read this MSDS before handling and disposing of this product. Pass this information on to employees, customers, and users of this product.

SECTION 2 — CHEMICAL COMPOSITION/HAZARDOUS INGREDIENTS

Ingredients	CAS #	% (weight)	OSHA	OTHER	LC ₅₀ (rat,inh) (mg/m ³ /4hr)	LD ₅₀ (mg/kg)	
			PEL (ppm)	TLV (ppm)		rat, oral	dermal, rabbit
Synthetic isoparaffinic hydrocarbons	64741-66-8	10 - 30	N/Av	281 (Exxon)	>20,000	>5000	>3160
n-propyl bromide	106-94-5	40 - 70	N/Av	*	50,291ppm / 30 min.	4260	N/Av
1,2-Epoxybutane	106-88-7	0.1 – 1.0	N/Av	None Est.	6300	1180	1760

*Not established by OSHA. Independent sources recommend a TLV of 100 ppm. The E.P.A. recommends that use of nPB adhere to an acceptable exposure limit of 25 ppm over an eight-hour time weighted average.

Chemical Family: Halogenated Hydrocarbon Blend

CAS No.: Mixture

SECTION 3 — HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, central nervous system

Signs and symptoms of short-term (acute) exposure:

Inhalation: Breathing vapours or mists may be harmful. Inhalation may cause irritation to the nose, throat, and respiratory system. Symptoms of overexposure may include headache, nausea, vomiting, dizziness, loss of co-ordination, coughing, and shortness of breath (CNS depression). In confined or poorly ventilated areas where the vapour concentration is very high, vapours can rapidly accumulate and cause unconsciousness and death.

- Skin contact:** Skin contact may cause mild irritation. Symptoms may include slight swelling and redness. Direct skin contact may result in absorption, but absorption does not occur quickly and symptoms of toxicity are not anticipated under normal conditions of use.
- Eye contact:** Direct eye contact may cause moderate irritation. Symptoms may include stinging, tearing, redness and swelling.
- Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation and symptoms such as nausea, vomiting, headaches, and dizziness (CNS depression). This product presents an aspiration hazard.

Effects of long-term (chronic) exposure: Prolonged or repeated skin exposure may cause moderate irritation, redness, burning, drying and cracking of the skin (dermatitis). Prolonged overexposure may cause liver and kidney damage, and blood system effects.

Other important hazards: This product may be aspirated into the lungs after ingestion resulting in life-threatening lung damage.

SECTION 4 — FIRST AID MEASURES

- Inhalation:** Immediately remove person to fresh air. If breathing stops, provide rescue breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Obtain medical attention immediately.
- Skin contact:** Wash skin with mild soap and running water, while removing contaminated clothing. If irritation persists, obtain medical attention. Launder clothing before re-use.
- Eye contact:** For exposure to vapours, remove person to fresh air. If irritation or redness develops, flush eyes with water and obtain medical attention. For direct eye contact, flush eyes with running water for at least 15 minutes. Obtain medical attention.
- Ingestion:** If swallowed, DO NOT induce vomiting. Obtain medical attention immediately. This material is a potential aspiration hazard. If person is drowsy or unconscious, place on left side with head down. Never give anything by mouth to an unconscious person.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: This material is a combustible liquid. It may be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Vapours are heavier than air and collect in low-lying areas. Vapours can travel to a source of ignition and flash back causing an explosion and fire. May create vapour/air explosion hazard indoors, outdoors, or in sewers. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flash point (Method): >200° F

Lower flammable limit (% by volume): Not Determined

Upper flammable limit (% by volume): Not Determined

Explosion data:

Sensitivity to mechanical impact: No

Sensitivity to static discharge: May be sensitive to static discharge.

Oxidizing properties: No

Auto-ignition temperature: 700°-900° F **Note:** Actual Autoignition Temperature (AIT) can be affected by the concentration of vapors and oxygen, vapour/air contact time, pressure, volume, catalytic impurities, etc. Process conditions should be analyzed to determine if the AIT's may be higher or lower.

Suitable extinguishing media: Use dry chemical, carbon dioxide, universal type foam.

Special fire-fighting procedures/equipment: Firefighters should wear proper protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray may be useful in minimizing or dispersing vapours, and cooling equipment and containers exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products: Carbon monoxide, carbon dioxide, hydrogen bromide gas.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release.

Environmental precautions: Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. Dike far ahead of the spill for later recovery or disposal.

Spill response/Cleanup: Eliminate all sources of ignition and remove any hot metal surfaces. Ventilate area of release. Stop leak if you can do so without risk. Use water spray to reduce vapours. Contain and absorb with non-combustible absorbent material, then place absorbent material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity: 1,2-Epoxybutane (RQ 100 lbs.)

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: Use in a well ventilated area. Avoid inhalation of vapours. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. This material can be ignited by ignition sources, heat, sparks, and flame. Eliminate all ignition sources. Bond and ground containers, hoses and piping when transferring liquid. Use caution when opening cap. Keep container tightly closed when not in use.

Storage requirements: Store in a cool, dry, well-ventilated area away from all sources of ignition and incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials: This product forms combustible and/or explosive mixtures with air and/or oxygen. This product is incompatible with strong acids or bases, oxidizing agents, selected amines, alkali metals, anhydrides, chlorine, ethylene oxide, hydrogen peroxide, and organometallic contaminants.

Special packaging materials: Not available.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use general or local exhaust ventilation to meet TLV requirements. Where explosive mixtures are present, use electrical systems that are safe for use.

Respiratory protection: Respiratory protection is required if the airborne concentration exceeds the TLV. NIOSH-approved respirators, gas masks, or a self-contained breathing apparatus are recommended depending on the airborne concentration levels.

Protective gloves: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.

Eye protection: Safety goggles to prevent direct contact, irritation, or injury.

Other protective equipment: Uniform, and eyewash station.

Permissible exposure levels: See Section 2.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical form, colour and odour: Clear, colourless liquid, very mild solvent odour.

Odour threshold: Not Available.

pH: Not Available.

Boiling Point : Greater than 158°F (Estimated)

Specific gravity (@68°F / 20°C): 1.2343

Melting/freezing point: Less than -76° F
Vapour pressure: 124mm Hg @ 20°C (calculated)
Vapour density (Air=1): 4.24 (Estimated)
Evaporation rate (nBuOAC=1): 4.1 (Estimated)

Coefficient of oil/water distribution: Not Available.
Solubility in water (%): Negligible
Volatile organic compounds (VOC's): 1134 g/L
Percent Volatile by Weight: 100

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed. This product forms combustible and/or explosive mixtures with air and/or oxygen. Hazardous polymerization will not occur.

Conditions to avoid: Static discharge, friction, heat, open flame, other sources of ignition, direct sunlight and air.

Materials to avoid: Incompatible materials (see Section 7).

Hazardous decomposition products: Carbon monoxide, carbon dioxide. May release formaldehyde and ethylene glycol in acidic conditions.

SECTION 11 — TOXICOLOGICAL INFORMATION

LD₅₀: See Section 2

LC₅₀: See Section 2

Routes of exposure: Skin contact, eye contact, absorption, inhalation, and ingestion.

Toxicological data: There is no available data for the product itself, only for the ingredients.

Teratogenicity, mutagenicity, other reproductive effects: None known.

Sensitization to material: None known.

Synergistic materials: Not Available.

Conditions aggravated by exposure: Pre-existing skin disorders, lung (asthma-like) disorders, and liver and kidney disorders.

SECTION 12 — ECOLOGICAL INFORMATION

Environmental effects: The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

Important environmental characteristics: N/Av

Aquatic toxicity: There is no data available on the product itself.

SECTION 13 — WASTE DISPOSAL

Handling for disposal: Handle waste according to recommendations in Section 7.

Methods of disposal: Containers should be disposed of in accordance with all applicable federal, provincial, state, and local regulations.

SECTION 14 — TRANSPORTATION INFORMATION

Transportation of Dangerous Goods (TDG) information:

Shipping description: Not Regulated.

49 CFR information:

Shipping description: Compound, Cleaning Liquid (Flash point >141°F)
DOT Hazard Class: Not regulated.

International Dangerous Goods information:

ICAO / IATA: Not Regulated.

SECTION 15 — REGULATORY INFORMATION

WHMIS information: B3 (Combustible liquid), D2A (Carcinogenicity), D2B (Eye irritant, Chronic health effector)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

CEPA information: All ingredients are listed on the DSL/NDSL.

TSCA information: All components are in full compliance with the TSCA inventory.

SARA

Section 302, 304: None

Section 311, 312: Acute

Section 313 Toxic Chemical: Yes

1,2 Epoxybutane (CAS #106-88-7) 0.1 – 1.0% (wt.)

RCRA: For disposal of unused material check with local, state and federal environmental agencies.

HMIS: Health 1

Flammability 1

Reactivity 0

Personal Protection X

California Proposition 65: This product contains n-propyl bromide which is known to the state of California to cause reproductive toxicity.

SECTION 16 — OTHER INFORMATION

Legend: N/Av – Not Applicable

OSHA – Occupational Safety and Health Act

TLV – Threshold Limit Value

DSL – Domestic Substances List

ICAO – International Civil Aviation Organisation

CEPA – Canadian Environmental Protection Act

IARC – International Agency for Research on Cancer

NIOSH – National Institute for Occupational Safety and Health

ACGIH – American Conference of Governmental Industrial Hygienists

EPA – United States Environmental Protection Agency

DOT – United States Department of Transportation

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act (EPA)

TDG – Canadian Transportation of Dangerous Goods Act and Regulations

N/Av – Not Available

Inh – Inhalation

TSCA – Toxic Substances Control Act

NDSL – Non-Domestic Substances List

CFR – United States Code of Federal Regulations

AIHA – American Industrial Hygiene Association

References: ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2001.

International Agency for Research on Cancer Monographs, Supplement 7, 1988.

Canadian Centre for Occupational Health and Safety. CHEMINFO / RTECS database (2001-3)

Material Safety Data Sheets from manufacturer.

Prepared by: Albatross USA Inc.

Telephone number: 718-392-6272

Preparation Date: March 5, 2004

Revision Date: February 28, 2005

NOTICE:

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.