

BACHARACH, INC.
MSDS NO: 4099-1464
MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet has been prepared to comply with the EC Directive,
Canadian WHMIS and OSHA Hazard Communication Regulations.

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SECTION 1: IDENTIFICATION

PRODUCT NAME: FLAME PHOTOMETRY DILUENT
STEROX CONCENTRATED DILUENT

PRODUCT NUMBER: 4051-0150 MSDS NUMBER: 4099-1464 REVISION NUMBER: 6

MSDS DATE OF PREPARATION/REVISION: 03-12-97

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SECTION 2: COMPOSITION

COMPONENT	CAS#	PERCENTAGE	EXPOSURE LIMITS
Water	7732-18-5	99	None Established
Ethoxylated Dodecyl Mercaptan	9004-83-5	1	None Established
Ethylene Oxide	75-21-8	<2 ppm	1 ppm PEL-TWA 1 ppm TLV-TWA, A2 5 ppm PEL-Ceiling
1,4-Dioxane	123-91-1	<2 ppm	100 ppm PEL-TWA skin 25 ppm TLV-TWA skin

Note: The Permissible Exposure Limits (PEL) reported above are the pre-1989 limits that were reinstated by OSHA June 30, 1993 following a decision by the 11th Circuit Court of Appeals. These PELs are those now being enforced by Federal OSHA. Be aware that more restrictive exposure limits may be enforced by some states, agencies or other authorities. The enforced PEL may not be adequate to ensure worker safety, so Bacharach, Inc. recommends that the lowest recommended exposure limit always be observed as reasonable worker protection.

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SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Clear, colorless liquid with a slightly unpleasant odor. May cause eye and skin irritation.

ACUTE HEALTH HAZARDS:

EYE CONTACT: May cause moderate to severe irritation.

SKIN CONTACT: May cause mild reversible irritation.

INHALATION: Inhalation of mists could cause irritation.

INGESTION: May cause kidney damage and moderate decreases in hemoglobin and red blood cell count.

CHRONIC HEALTH EFFECTS: Ethylene oxide and 1,4-dioxane are present in this material at extremely low levels (less than 2 ppm) and overexposure is not expected to occur under foreseeable circumstances. Small amounts may collect in the headspace of containers. Chronic overexposure to ethylene oxide may cause adverse reproductive effects. Ethylene oxide and 1,4-dioxane are suspected carcinogens.

CARCINOGEN STATUS: 1,4 dioxane and ethylene oxide are listed by IARC or NTP as suspected carcinogens.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

SEE SECTION 11 - TOXICOLOGICAL INFORMATION FOR ADDITIONAL DATA

SECTION 4: FIRST AID

EYE CONTACT: Flush thoroughly with copious amounts of running water for 15 minutes, lifting the lids occasionally. Get immediate medical attention.

SKIN CONTACT: Wash well with soap and water. Remove contaminated clothing and launder before re-use. Get medical attention if irritation develops.

INHALATION: Remove victim to fresh air and give artificial respiration if needed. Get medical attention.

INGESTION: Never give anything by mouth to or induce vomiting with an unconscious person. Induce vomiting immediately as directed by medical personnel. Get immediate medical attention.

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SECTION 5: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not Combustible TEST METHOD: N/A
AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: Use any media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear NIOSH approved positive pressure self contained breathing apparatus and full protective clothing for all fires involving chemicals.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen sulfide, oxides of carbon and sulfur.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Contain spill, cover with inert absorbent or mop up and collect. Wash residual with water. Prevent wash water from entering waterways. Report spill as required.

SECTION 7: HANDLING AND STORAGE

WORK PRACTICES: Prevent contact with the eyes. Avoid contact with the skin & clothing. Avoid breathing vapor. Ethylene oxide may collect in the headspace of container. Concentrations are expected to be below all exposure limits, however, good ventilation recommended

SPECIAL PRECAUTIONS: None

STORAGE: Store in a well ventilated area, away from oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Good general room ventilation is usually adequate.

RESPIRATORY PROTECTION: None should be needed under normal conditions and ambient temperatures. If misted wear a NIOSH approved mist respirator. For fire wear approved supplied air respirator.

GLOVES: Impervious such as rubber or neoprene.

EYE PROTECTION: Chemical safety goggles recommended.

OTHER PROTECTIVE EQUIPMENT: Protective apron or lab coat if contact is likely to keep personal clothing clean.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless liquid, slightly unpleasant odor, foams when shaken. No data available.

pH: Neutral SPECIFIC GRAVITY: Approx. 1
BOILING POINT: Approx. 100 C VAPOR PRESSURE: Not available
MELTING POINT: Approx. 0 C VAPOR DENSITY: >1
SOLUBILITY IN WATER: Complete PERCENT VOLATILE: 100%
COEFFICIENT WATER/OIL: Not available

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Avoid excessive heat.

INCOMPATIBILITY: Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce carbon monoxide, carbon dioxide, hydrogen sulfide and oxides of sulfur.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: N/A

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA: No data available.

IRRITANCY DATA: This product may cause severe eye irritation.

SENSITIZATION: This material has not been tested as a whole. None of the components have been reported to cause sensitization in animals or humans.

REPRODUCTIVE TOXICITY: This material has not been tested as a whole. Ethylene oxide and 1,4 dioxane have been reported to cause reproductive toxicity in animals or humans.

TERATOGENICITY: This material has not been tested as a whole. Ethylene oxide and 1,4 dioxane have been reported to cause teratogenic effects in animals or humans.

MUTAGENICITY: This product has not been tested as a whole. Ethylene oxide and 1,4 dioxane have been found to be mutagenic.

SYNERGISTIC EFFECTS: There are no chemicals known to cause any additive adverse health effects.

N/D=Not Determined

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N/A=Not Applicable

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SECTION 12: ECOLOGICAL INFORMATION

The ecological effects of this product have not been evaluated.

SECTION 13: DISPOSAL

Dispose in accordance with all local, state and federal regulations.

RCRA HAZARDOUS WASTE CODES: None

SECTION 14: TRANSPORTATION DATA

US DOT SHIPPING NAME: NOT REGULATED
DOT LABELS REQUIRED: N/A
EMERGENCY RESPONSE GUIDE NUMBER: N/A

IATA SHIPPING NAME: NOT REGULATED
IATA LABELS REQUIRED: N/A

SECTION 15: OTHER REGULATORY INFORMATION

SARA 311/312: Hazard Categories for SARA Section 311/312 Reporting:
Acute health, chronic health.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313 (40 CFR 372):
None above de minimus concentration

CERCLA SECTION 103 REPORTABLE QUANTITY: None

CALIFORNIA PROPOSITION 65: This product contains the following substances known to the State of California to cause Cancer and/or Reproductive Harm: Ethylene oxide, 1,4 Dioxane.

US TOXIC SUBSTANCES CONTROL ACT: All of the components of this product are listed on the EPA TSCA Inventory.

EUROPEAN INVENTORY OF COMMERCIAL CHEMICAL SUBSTANCES: All of the components of this product are listed on the EINECS Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the components of this product are listed on the Canadian Domestic Substances List.

CANADIAN WHMIS CLASSIFICATION: Class D - Division 2B (Toxic Material Causing Other Chronic Effects)

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EUROPEAN COMMUNITY LABELING CLASSIFICATION: N/A

EUROPEAN COMMUNITY RISK AND SAFETY PHRASES: N/A
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SECTION 16: OTHER INFORMATION

NFPA HAZARD RATING: HEALTH: 1 FIRE: 0 REACTIVITY: 0

DATE OF LATEST MSDS REVISION: 03-12-97

REVISION SUMMARY: Review and update, no changes.
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The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Bacharach, Inc., it is the users obligation to assure safe use of this product.