N3480 -02
Effective: 03/09/92

Nile Blue A (Sulfate)

J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

Product Name: Nile Blue A (Sulfate)
Common Synonyms: 5-Amino-4-(diethylamino)benzo[alphenazoxonium Hydrogen Sulfate
Chemical Family: Dyes, Stains, and Indicators
Formula: C_{20}H_{20}N_{3}O\cdot HS O_{4}
Formula Wt.: 415.47
CAS No.: 2381-85-3
NIOSH/RTECS No.: DJ1931000
Product Use: Laboratory Reagent
Product Codes: R775

PRECAUTIONARY LABELING

U.S. Precautionary Labeling

WARNING!
HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. CAUSES IRRITATION. There is insufficient data in the published literature to assign complete numerical SAF-T-DATA* ratings and laboratory protective equipment for this product. Special precautions must be used in storage, use and handling. Protective equipment for laboratory bench use should be chosen using professional judgment based on the size and type of reaction or test to be conducted and the available ventilation, with overriding consideration to minimize contact with the chemical. Avoid contact with eyes, skin, clothing. Keep in tightly closed container. Wash thoroughly after handling.

International Labeling

Avoid contact with eyes. After contact with skin, wash immediately with plenty of water. Keep container tightly closed.

SECTION II - COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Weight %</th>
<th>OSHA/PEL</th>
<th>ACGIH/TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nile Blue A (Sulfate)</td>
<td>2381-85-3</td>
<td>90-100</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

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SECTION III - PHYSICAL DATA

Boiling Point: N/A
Melting Point: 298°C (568°F) (at 760 mm Hg)
Specific Gravity: N/A (H₂O=1)
Solubility(H₂O): Appreciable (>10%)

Vapor Pressure (mmHg): N/A
Vapor Density (air=1): N/A
Evaporation Rate: N/A
% Volatiles by Volume: 0 (21°C)

pH: N/A
Odor Threshold (ppm): N/A
Coefficient Water/Oil Distribution: N/A
Appearance & Odor: Dark green to blue powder, Odorless.

Physical State: Solid

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed Cup): N/A
Autoignition Temperature: N/A
Flammable Limits: Upper - N/A Lower - N/A

Fire Extinguishing Media
Use extinguishing media appropriate for surrounding fire.

Special Fire-Fighting Procedures
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

Unusual Fire & Explosion Hazards
None identified.

Toxic Gases Produced
oxides of nitrogen, oxides of sulfur, carbon monoxide, carbon dioxide

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

Explosion Data-Sensitivity to Mechanical Impact
None identified.

Explosion Data-Sensitivity to Static Discharge
None identified.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value (TLV/TWA): Not Established
Short-Term Exposure Limit (STEL): Not Established
Permissible Exposure Limit (PEL): Not Established

Toxicity of Components

No information is available
Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No

Carcinogenicity
None identified.

Reproductive Effects
None identified.

Effects of Overexposure

INHALATION: none identified
SKIN CONTACT: irritation
EYE CONTACT: irritation
SKIN ABSORPTION: none identified
INGESTION: none identified
CHRONIC EFFECTS: none identified

Target Organs
none identified

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

Medical Conditions Generally Aggravated by Exposure
none identified

Primary Routes of Entry
skin contact, eye contact

Emergency and First Aid Procedures

INGESTION: CALL A PHYSICIAN. If swallowed, if conscious, immediately induce vomiting.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

SKIN CONTACT: In case of contact, flush skin with water.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: No Chronic: No Flammability: No Pressure: No Reactivity: No

Extremely Hazardous Substance: No CERCLA Hazardous Substance: No SARA 313 Toxic Chemicals: No TSCA Inventory: Yes

SECTION VI - REACTIVITY DATA

Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: none documented

Incompatibles: strong oxidizing agents

Decomposition Products: oxides of nitrogen, oxides of sulfur, carbon monoxide, carbon dioxide

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SECTION VII - SPILL & DISPOSAL PROCEDURES

Steps to be Taken in the Event of a Spill or Discharge
Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

Disposal Procedure
Dispose in accordance with all applicable federal, state, and local environmental regulations.

SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

Eye/Skin Protection:
Since some of the hazards of this product are unknown, an Industrial Hygienist should be consulted on ventilation and personal protective equipment. Cover the body as much as possible to avoid contact with the chemical. Wear safety goggles, gloves, and impervious clothing.

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

Storage Requirements
Keep container tightly closed. Suitable for any general chemical storage area.

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

Domestic (D.O.T.)
Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)

International (I.M.O.)
Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)  
Marine Pollutants: No
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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)

AIR (I.C.A.O.)

Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)

U.S. Customs Harmonization Number: 32041300003

N/A = Not Applicable or Not Available
N/E = Not Established

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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