

# **NIOSH**

## **Preventing Health Hazards from Exposure to Benzidine Congener Dyes**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
National Institute for Occupational Safety and Health

**PREVENTING HEALTH HAZARDS FROM EXPOSURE TO  
BENZIDINE CONGENER DYES**

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**DISCLAIMER**

**Mention of company names or products does not constitute endorsement  
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## PREFACE

Exposures to benzidine congener dyes in the workplace may increase the risk of cancer in the exposed workers. In particular, dyes based on the chemical benzidine may be carcinogenic; dyes based on o-tolidine or o-dianisidine may also pose a carcinogenic risk to workers. Cancer could be caused by the dye itself, by leftover parent chemicals and impurities in the dye after its manufacture, or by chemicals resulting from breakdown of the dye in the body. The risk of cancer extends beyond the manufacture of benzidine congener dye where there is potential exposure to benzidine (a known carcinogen), o-tolidine, or o-dianisidine (suspected carcinogens). Workers who use the dye or the dyed product may also be at risk and should be well protected.

The National Institute for Occupational Safety and Health (NIOSH) has developed this publication to alert supervisors, workers, safety committees, and safety directors to these hazards as well as to suggest the necessary protective measures. To aid in determining whether or not benzidine congener dyes are being used in a particular setting, Appendix A lists many of their tradenames and synonyms, grouped by their parent chemical.



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## BACKGROUND

In this publication, the term benzidine congener dyes (BCDs) refers to commercial preparations of those dyes produced from either benzidine, ortho-tolidine, or ortho-dianisidine. The term "congener" (Latin for "same family") refers to their similarities in chemical structure.

Like many other technical grade dye formulations, each commercial benzidine congener dye may contain several chemicals. At least four of these chemicals--leftover parent compound (the so-called "chemical intermediate"), certain impurities, breakdown products, and the dye itself--may pose serious health hazards to workers.

Approximately 82 benzidine congener dyes are now or have been widely used in the U.S. They are marketed under several hundred tradenames (many are listed in Appendix A of this publication). Although each of these 82 dyes has not been specifically tested for health effects, they have several important similarities. These similarities have led scientists at the National Institute for Occupational Safety and Health (NIOSH) to conclude, after extensive review of the data, that exposure to any of them in the workplace may increase the risk of cancer to exposed workers.

The conclusions reached by these scientists were based on the following findings:

1. Those dyes tested showed cancer-causing potential.
2. Leftover parent chemicals in commercial preparations of these dyes are either known (benzidine) or suspected (o-tolidine, o-dianisidine) carcinogens.
3. Benzidine congener dye products are not pure, and may contain actual or potential carcinogens other than the dyes and their parent compounds. Impurities may have been present at the time of manufacture, or could have been formed as a result of dye breakdown during storage, especially if the dye had been exposed to heat.
4. Those BCDs tested were converted to the parent chemical in the bodies of several species of test animals. Available evidence supports biotransformation in humans of benzidine-based dyes to the parent compound, benzidine. Although less conclusive at this time, there is also evidence that humans metabolize o-tolidine-based dyes to their parent chemicals.
5. Members of this family of dyes, the benzidine congeners, have closely related chemical structures.

Earlier, when only the parent compound or other chemical precursors were thought to be hazardous, attention was focused on dye manufacturing workers. However, as a result of tests performed by the National Cancer Institute, it is now believed that the dyes themselves are potential carcinogens.

Of the entire range of chemicals tested to date in the National Cancer Institute's bioassay program, three benzidine-based dyes demonstrated the shortest "time-to-tumor" interval. These results suggested that the benzidine-based dyes themselves might be very potent carcinogens. Because the dyes themselves--not simply leftover intermediates, breakdown products, or contaminants--may be carcinogenic, it is not enough to protect against exposure to the dyes only during dye manufacture. Workers who apply the dye and workers who process the dye are also exposed to a health hazard and must also be well protected.

Dye house workers are probably the most significantly exposed workers. Much less is known about the potential dye exposure of workers processing BCD-dyed fabrics, leather, and paper after these materials leave the dyeing plant. Generation of particulates from the BCD-dyed materials might occur, for example, in cutting, sewing, knitting, weaving, and finishing operations.

Although dye exposure in these processing operations is not well characterized, we do know that dyed particulates are generated when fabrics are prepared from dyed fibers, and that dyed particulates are released during cutting and sewing operations.

Because the possibility of dye exposure during processing activities exists, but exposure data are at present not available, a determination of whether such workers face any health hazard from working with BCD-dyed materials must await further investigation.

In summary, several benzidine congener dyestuff constituents--the dye itself, leftover parent compound, breakdown products, and certain impurities--may present serious health hazards.

For the reasons discussed above, NIOSH recommends that worker exposure to benzidine-based dyes be reduced to the lowest level feasible, preferably by substituting safer dyes for benzidine-based dyes.

The available data on dyes based on o-tolidine and o-dianisidine, while less extensive and definitive than those for benzidine-based dyes, suggest that these dyes, and certain dye contaminants (including breakdown products occurring during storage or heating), may also present a cancer risk to workers. Exposure to these two additional classes of dyes should therefore be minimized. NIOSH recommends, as a prudent public health measure, that substitution of less toxic dyes be used as a control measure wherever possible.

#### QUESTIONS OFTEN ASKED ABOUT BENZIDINE CONGENER DYES

##### SOURCES OF EXPOSURE/ WHO IS EXPOSED

Q: What are the most common industrial sources of exposure to benzidine congener dyes (BCDs)?

A: Exposure to BCDs is especially likely during various manufacturing operations:

Synthesis

Processing (especially spray drying, presscake drying, milling, pulverizing, and blending)

Packaging  
Transportation  
Maintenance and cleanup.

Exposure can also occur during kinds of dyeing procedures:

Textile dyeing  
Pulp and paper dyeing  
Leather and fur dyeing.

Examples of these exposure situations include dye weighing and mixing; transfer to dyeing vats or paper beaters; leather spraying; maintenance and cleanup work; handling of dyed fabric, paper, fur, or leather; stripping of imperfectly dyed materials; and waste treatment and disposal operations.

Other applications in which BCD exposure may take place include the manufacture of:

Water-based inks  
Wood stains  
Plastics  
Pigments  
Hair dyes  
Typewriter ribbons  
Printed textiles  
Soaps  
Consumer dyeing products  
Wood flours used as resin fillers  
Biological stains and indicators.

The use of BCDs may have been discontinued in some of the above applications.

Still other potential exposure situations occur outside of manu-

facturing and dyeing settings where particulates may be generated.

This work involves dyed textiles, leather, or paper in the following processing operations:

Finishing  
Cutting  
Sewing  
Knitting or weaving with dyed fibers.

It is not known whether workers who are exposed to the dusts of BCD-dyed textiles or leather, such as in cutting or sewing operations, face risks similar to BCD workers in manufacturing and applications industries. The measurements needed to determine the nature and level of exposure to such dyed dusts have not yet been made.

Q: Are only production workers exposed?

A: No. Production workers are often the most routinely exposed workers; but maintenance and cleanup crews can also be significantly exposed. Such workers risk exposure when local exhaust ductwork requires cleaning, spills must be cleaned up, or process equipment must be disassembled. These individuals are of particular concern because some of the most effective exposure controls available to production staff, such as process enclosure and local exhaust ventilation, are often the least likely to be available to maintenance workers.

Q: How does a person find out whether benzidine congener dyes are



being used (or have been used) in a particular workplace?

A: Over 2,900 BCD tradenames are listed alphabetically in the back of this publication by major dye group (benzidine-based, o-tolidine-based, and o-dianisidine-based). Generic (common) names, such as Direct Black 38, are included where known as an aid to dye identification. Posting this list at those work stations where exposure occurs would assist workers in determining whether they are being or have been exposed to BCDs.

Q: Where may substitutes for benzidine congener dyes be purchased?

A: Many companies can supply substitute dyes upon request. Substitutes may also be found by referring to the "Buyers Guide" published every July by the American Association of Textile Colorists and Chemists. The "Buyers Guide" can be ordered from:

The American Association of Textile Colorists and Chemists  
Box 12215  
Research Triangle Park  
North Carolina 27709

#### REDUCTION OF EXPOSURE

Q: How do dyes enter the body?

A: There are three ways that dyes can enter the body. Dyes can be inhaled, swallowed, or contact the skin or eyes.

Breathing dye dusts and mists allows smaller particles to enter the lungs, where they may become

trapped, be retained, or be ultimately degraded. Larger particles are either trapped by the mucous lining of the respiratory passages or are exhaled; those that are trapped are coughed up and may be swallowed. Eating, chewing, or smoking items contaminated with dye dusts, liquids, or pastes also allows dye to enter the body. Dye that is thus swallowed can be absorbed into the blood from the intestines, and can be transformed to the intermediate (parent compound) by bacteria living in the gut. Finally, some dye components may enter the body by absorption through healthy or damaged skin, or through contact with the eyes.

Q: If the air doesn't look dusty, is it safe to breathe?

A: Not necessarily. The particles most likely to lodge in the lungs are too small to be seen by the naked eye.

Such particles are extremely light, and tend to float in the air before settling slowly to the ground or other surfaces. Just because the visible part of a dust cloud has settled doesn't mean the air is safe to breathe.

The only sure way to find out whether the air in the worker's breathing zone is safe is to collect a sample of it with a personal sampler. The sample should then be analyzed by a certified industrial hygiene laboratory. Under the current medical and exposure records access standard, workers and their representatives have a legal right to see the results of workplace air sampling tests performed by or for their employers.

Q: How can the risks to workers handling BCDs be most effectively minimized?

A: Replacement of BCDs with known safe dyes is the most effective means of reducing exposure. When substitution isn't a viable option, however, BCD exposure should be reduced to the lowest feasible level.

Although the amount of exposure that the body can safely tolerate is unknown, it is generally agreed that the smaller the exposure, the less the chance for developing an exposure-related disease. However, it is also possible that the chance of the disease developing will remain the same, but that at lower exposure levels it will take more time for the disease to develop.

One very effective method for reducing inhalation exposure involves changing the form in which the dye is handled. For example, dyes can be supplied in paste, liquid, or pelletized forms, or in soluble bags. Note that handling dyes in these forms does not necessarily reduce the need for effective protection against skin exposure (discussed below).

Inhalation (as well as skin exposure) can be further reduced, often substantially, by preventing dyes from contaminating workplace air and work surfaces (floors, benches, machinery, etc.). A particularly effective control method involves containing those operations where dye is transferred, weighed, mixed, metered, sampled, packaged, or otherwise handled. The technical term for this technique is process enclosure.

For example, enclosures (transparent types if visibility is

important) may be attached to presscake grinders and to milling, bagging and drumming machines to contain dye particles. Local exhaust ventilation is frequently applied to such enclosures to make sure that any openings permitting leakage will cause air to flow into the enclosed area rather than out of it. Another example of process enclosure involves the use of liquid metering devices or gravity feeds for charging operations. By eliminating pouring and measuring steps, these devices can significantly reduce exposure due to spills.

Where process enclosure is not practical, concentrations of airborne dyes can still be substantially reduced by local exhaust devices, such as hoods and downdraft or crossdraft tables. When properly designed, fabricated, and maintained, these devices capture the dye particles close to the point of release and prevent them from entering the worker's breathing zone. However, when local exhaust is used, adequate filters or traps should be provided in the exhaust air line before the air is released inside or outside the plant. It is also important that such filtration apparatus be designed to allow safe maintenance, and that the exhaust system components are kept well maintained.

Engineering controls, such as process enclosure and local exhaust ventilation, can also substantially reduce dye exposure in dye applying operations, as well as in processing industry (post-application) operations where exposure is documented.

NIOSH further recommends that BCDs only be manufactured and used in

restricted areas of the workplace. Such areas need to be clearly posted with appropriate warning signs, and access to them should be limited to workers informed of both the potential hazards and proper control measures.

For additional information on restricted areas and other approaches to handling actual and potential carcinogens, see the NIOSH pamphlet "A Management Guide to Carcinogens--Regulation and Control," DHEW (NIOSH) Publication No. 77-205.

#### PERSONAL PROTECTIVE EQUIPMENT

Q: How can workers be protected during emergencies, maintenance work, equipment failures, and cleaning operations against exposure to hazardous dyes that escape and become airborne despite efforts to contain, capture, or remove them?

A: If hazardous dyes escape into workplace air, then (1) workers must be individually protected against breathing them or coming into skin contact with them, and (2) settled dye particles must be removed and immobilized to prevent them from becoming airborne again.

Inhalation of hazardous dyes that escape capture or containment efforts can be minimized by use of a positive-pressure respirator (air line or battery powered). These provide air to the facepiece under slight pressure. The pressure (1) helps prevent airborne dye from leaking into the mask during inhalation, and (2) reduces the burden of wearing a respirator by diminishing breathing effort.

Persons wearing respirators other than supplied-air types typically breathe with greater effort and sweat more, and may be inadequately protected due to a less than perfect seal. A snug fit is essential where the edges contact the face.

For situations where an air line respirator would not allow sufficient mobility, a half-mask battery powered air purifying respirator with high efficiency filters is recommended. Powered air purifying respirators are inferior, however, to air line respirators for use in areas with substantial dust levels, or in confined spaces. Under emergency conditions, only respirators with a self-contained air supply are suitable.

Whenever respirators are used, it is essential that fitting, maintenance, cleaning, and storage be properly and consistently performed. For general information on selecting, fitting, cleaning, and maintaining respirators, see the NIOSH pamphlets entitled, "Respiratory Protection--An Employer's Manual," DHHS (NIOSH) Publication No. 78-193A, GPO #017-033-00326-2 (\$4.50), and "Respiratory Protection--A Guide for the Employee," DHHS (NIOSH) Publication No. 78-193B, GPO #017-033-00327-1 (\$3.25). (Ordering information appears on the back cover of this publication.)

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Note: Since the particles that can reach the lungs are light enough to stay suspended in workplace air long after heavier particles have settled, airflow patterns may carry them to work positions far from their source, where workers may not be wearing respirators. Because these respirable particles are

small enough to be invisible, persons at nearby work stations may be unaware of what they may be breathing. Airflow patterns can even move these microscopic particles to more remote areas, such as lunch rooms, management offices, and other areas not typically thought of as hazardous.

This illustrates one more reason why engineering controls are strongly preferred over respirator use for protection against BCD hazards; all employees can be protected, not just the workers known to be exposed.

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Settled dye particles must be removed without scattering them back into the air. This means no blow-downs with compressed air, and no dry sweeping. The only safe methods for cleaning settled dye from equipment, ductwork, ledges, floors, etc. are: (1) vacuuming (using high-efficiency filter vacuums, such as those approved for handling asbestos), and (2) wet methods (such as first spraying contaminated surfaces with a fine water mist and then hosing them down with additional water).

Vacuuming is also recommended for the initial removal of dust from heavily contaminated clothing, both immediately after substantial contamination and routinely before changing clothes.

Q: What type of personal protective equipment should be worn by workers who cannot otherwise avoid skin contact with a benzidine congener dye?

A: Skin contact is typically minimized by wearing gloves and protective coveralls.

Gloves are especially important, since they prevent skin contact with parent compounds and other contaminants. The gloves must be impermeable to the extent practical. They must be washed before being removed, and checked for pinholes, tears, and similar defects before reuse. Because wearing gloves contaminated on the inside exposes the skin to the contaminant, gloves with dye residue inside must be replaced or thoroughly cleaned. Long-sleeved style gloves are recommended to ensure that wrists and forearms aren't contaminated by material entering the cuffs or getting on exposed arms.

Full-body coveralls are also recommended for protecting skin from contact with hazardous dyes. Coveralls should be changed at least daily, and sooner if they become contaminated because of leaks, spills, discharges, etc. Use of disposable outer garments is strongly recommended for two reasons. First, complete removal of BCDs from contaminated garments can be difficult. Reducing agents, such as those commonly used in dye stripping processes, release the toxic parent compound from the dye, which may become entrapped on the garments being laundered.

Second, if contaminated work clothes are worn home, or are taken home for laundering, family members may be inadvertently exposed.

Note that use of bleach, organic solvents, or other strong chemicals

to clean dye-stained skin impairs the skin's natural protection against the environment. Once impaired, the skin more readily absorbs many hazardous chemicals and becomes more susceptible to infection and dermatitis. The use of any cleaner that contains a strong reducing agent, such as sodium hydrosulfite, is especially dangerous since this chemical transforms benzidine congener dyes back to their toxic parent compounds. Showers should be available where dyestuff exposure can occur, and workers should be required to shower whenever significantly contaminated.

Q: How do workers get the required gloves, coveralls, and (where appropriate) respirator?

A: Under Federal law employers are responsible for protecting workers against workplace hazards, and are required to provide all necessary protective equipment. This equipment must be effective, properly maintained, and readily available to workers.

If reusable protective garments are used, the washing of coveralls, gloves, etc. should be performed or arranged for by the employer, since laundering of BCD-contaminated garments necessitates special handling. Reducing agents should not be used to remove BCD stains, due to conversion of these dyes back to the parent compounds, and the possibility that these would be entrapped on the seemingly clean garment (or on other garments in the batch being washed).

The recommended alternative to laundering is to provide a fresh disposable outer garment daily, and

to require it to be changed during the workday if it becomes contaminated. This avoids worker exposure during laundering, and the possibility of residual contaminants being present after washing.

Q: Is all footwear about equally protective against dye exposure?

A: No. Canvas sneakers and other fabric footwear as well as leather shoes or boots will absorb spilled dye, especially when the dye is in liquid form or the footwear is wet. Dye retained on absorbent footwear may later contact the skin; the moist environment in footwear is conducive to skin absorption of various dye components.

For these reasons, washable, non-absorbent footwear is recommended. Such footwear should be cleaned after each shift and stored in a place free from contamination. An alternative to using nonabsorbent footwear is to use disposable shoe covers on existing footwear.

Q: Wearing full-body coveralls, nonabsorbent footwear, nonabsorbent long-sleeved gloves, and (if appropriate) a respirator could make working in hot work areas extremely uncomfortable. Are there alternatives?

A: Yes. It is widely recognized that protecting workers individually with personal protective equipment can impose considerable stress on them. In certain environments, such as high heat plus high humidity, this burden may be serious enough to increase the risk of accidental injuries, due to lowered alertness or impaired

judgment. It may also increase the likelihood of heat illnesses.

In order to minimize reliance on personal protective equipment (and for reasons discussed earlier), NIOSH recommends that hazards be controlled at the source. Because exposure is completely eliminated, substitution of a nonhazardous dye can be the simplest and most effective alternative. Where dye substitutes that are known to be safe are not available, process enclosure with local exhaust ventilation to keep the enclosure under negative pressure may provide adequate control.

Where work is performed under hot and/or humid conditions, and use of personal protective equipment is unavoidable, the environment of the work area involved should be made as favorable as possible. For example, ventilation can be increased to remove excess heat or humidity, or air conditioning can be installed. Frequent rest breaks may provide additional protection against severe discomfort.

Obviously many work areas could only be air conditioned with great difficulty; this is yet another reason why engineering controls and other measures that control contaminants at the source have been favored over use of respirators, protective garments, and other personal protective exposure controls.

#### HEALTH EFFECTS/MEDICAL AND ENVIRONMENTAL EVALUATION

Q: What kind of cancer is known to be a problem for workers who are (or have been) exposed to BCDs?

A: Although other types are possible, bladder cancer is found at an unexpectedly high rate among dye, textile, and leather workers exposed to benzidine-based dyes. Cancers are not now specifically associated with exposure to o-tolidine-based or o-dianisidine-based dyes; however, animal studies suggest that these are potential human carcinogens.

Q: When bladder cancer was detected in dye workers who manufactured benzidine-based dyes, how long did it take for the tumors to develop?

A: Cases showed a range of 1-40 years between first exposure and the diagnosis of cancer in exposed workers. It is important to note that the minimum amount or length of exposure required to initiate tumor development is not known.

Q: Should workers who are exposed now, or who may have been exposed to these dyes in the past, be medically examined?

A: Yes. The employer should provide a yearly medical examination for each worker potentially exposed to benzidine congener dyes. Retired workers who have worked with or near these dyes, and former dye workers now employed in other industries, are advised to arrange for a medical examination on their own.

Blood in the urine can be an indicator of bladder impairment due to a malignancy. Typically the blood appears without accompanying pain. Blood in the urine can also be caused by a urinary tract infection, by bladder stones, or by a benign

tumor. In all four cases, the blood may disappear from the urine overnight. However, where a malignancy is the cause, the blood returns, sometimes weeks or months later.

Q: What tests or procedures do physicians perform in evaluating patients who are exposed to benzidine congener dyes?

A: Although there are certain factors (such as type and amount of exposure) that will influence a physician's judgment, the physician typically:

1. Obtains an occupational and an exposure history.
2. Obtains a medical history with special emphasis on complaints associated with the urinary tract and liver.
3. Performs a physical examination emphasizing the kidney and liver.
4. Orders lab tests for liver and kidney function, plus a urinalysis that includes microscopic examination of sediment.
5. Advises the individual of the results of the medical examination and lab tests.

In addition, the National Cancer Institute recommends that a cytologic examination of the urine be performed periodically for workers exposed to hazardous dyes (see DHEW (NIH) Publication No. 78-722).

Q: Is free assistance in evaluating working conditions and work practices available?

A: Yes. Employers or employees can ask NIOSH to perform a Health Hazard Evaluation (see back pages of this publication for NIOSH office addresses and phone numbers). These free surveys typically involve on-site sampling, and may include medical evaluations. Results and recommendations are made available to both the employer and employee.

To preserve confidentiality, the identity of specific workers examined does not appear in any medical findings included in the report. Specific findings, however, are provided directly to each individual examined. (Note that medical examinations, if performed, are always voluntary.)

Employers can also ask for technical assistance in hazard recognition and control from state consultation programs funded by the Occupational Safety and Health Administration (OSHA). The phone number of the nearest OSHA office can be found in the white pages of the phone directory under "United States Government, Department of Labor."

Another source of assistance is the OSHA compliance inspection. OSHA inspections may result in orders to correct workplace hazards. These orders can be enforced.

## APPENDIX A

### BCD TRADENAMES AND GENERIC NAMES, BY PARENT CHEMICAL

Distributed or formerly distributed in the United States  
as of August 1981

Many different tradenames and generic names are used for benzidine congener dyes. As an aid for identification, Appendix A lists tradenames and generic names used for BCDs. Dye names are listed alphabetically and grouped by their parent chemical (benzidine, o-tolidine, or o-dianisidine). All three lists should be checked for the dye name in question. Both imported and domestically produced dyes are listed.

Appendix A also lists many tradename dyestuffs that are no longer produced. These are included to (1) help workers find out whether they had been exposed to BCDs in the past, and (2) permit recognition of older inventories of discontinued dyes that could still be used.

Colour Index (C.I.) numbers and generic names are included for those dyes identified by the Toxicology Information Response Center, Oak Ridge National Laboratory as being based on benzidine, o-tolidine, or o-dianisidine. These lists are not, however, exhaustive inventories of every BCD tradename product. To ascertain whether a dye not listed is a benzidine congener dye, consult the Colour Index or contact NIOSH.

Metallized o-dianisidine-based dyes are noted by a "pound sign" (#). These dyes, according to industry sources, may be less hazardous to handle than other benzidine congener dyes. Since NIOSH does not now have enough information to determine whether the commercial grade metallized dyes present less of a health hazard, the "pound sign" (#) should not be construed as NIOSH support for any safety claims.



BENZIDINE-BASED DYES

ACALIN RED S 2B  
ACID ANTHRACENE RED G  
ACID ANTHRACENE RED G CONC.  
ACID ANTHRACENE RED GA  
ACID ANTHRACENE RED GA-CF  
ACID ANTHRACENE RED 3B  
ACID ANTHRACENE RED 3B EXTRA  
ACID ANTHRACENE RED 3BM  
ACID ANTHRACENE YELLOW GR  
ACID FAST YELLOW MR  
ACID LEATHER RED GR  
ACID LEATHER RED MR  
ACID LEATHER SCARLET G  
ACID LEATHER SCARLET 2B  
ACID LEATHER YELLOW CRS  
ACID MILLING RED G  
ACID MILLING RED R  
ACID MILLING YELLOW M  
ACID ORANGE 63  
ACID RED G  
ACID RED PG  
\*ACID RED 85  
ACID YELLOW K  
ACID YELLOW 42  
ACIDERM YELLOW ER  
ACIDINE SCARLET GD  
ACIDOL YELLOW GRX  
ACILAN RED 3BS  
AHCO DIRECT BLACK GX  
AHCO DIRECT BLACK RW  
AIREDALE BLACK BHD  
AIREDALE BLACK ED  
AIREDALE BLACK RWD  
AIREDALE BLUE 2BD  
AIREDALE BROWN BSD  
AIREDALE BROWN GWD  
AIREDALE BROWN MD  
AIREDALE GREEN BD  
AIREDALE GREEN BWD  
AIREDALE RED FD  
AIREDALE RED PGM  
AIREDALE SCARLET BD  
AIREDALE SCARLET GM  
AIREDALE SCARLET 5BM  
AIREDALE VIOLET ND  
AIREDALE YELLOW 3GM  
AIZEN DIRECT BLACK BH  
AIZEN DIRECT BLACK BH EXTRA  
AIZEN DIRECT BLUE 2BH  
AIZEN DIRECT BORDEAUX GH  
AIZEN DIRECT BROWN MH  
AIZEN DIRECT DARK GREEN BH  
AIZEN DIRECT DEEP BLACK EH  
AIZEN DIRECT DEEP BLACK GH  
AIZEN DIRECT DEEP BLACK RH  
AIZEN DIRECT FAST RED FH  
AIZEN DIRECT GREEN BH  
AIZEN PRIMULA BROWN BRLH  
AIZEN PRIMULA BROWN PLH  
ALIZARINE CHROME RED G  
ALPHANOL FAST ORANGE R  
ALPHANOL FAST RED G  
ALPHANOL FAST YELLOW F  
ALPHANOL FAST YELLOW H5G  
ALTAZINE BLACK BH  
ALTOCHROME MILLING SCARLET G  
ALTOCHROME SCARLET G  
AIZEN DIRECT VIOLET LNH  
AMACID FAST YELLOW RS  
AMACID FAST YELLOW RS EX.  
AMACID MILLING ORANGE PR  
AMACID MILLING RED PGS  
AMACID MILLING SCARLET G  
AMACID MILLING SCARLET 3R  
AMACID MILLING SCARLET 3R CONC.  
AMACID MILLING YELLOW 5G  
AMANIL BLACK GL  
AMANIL BLACK WD  
AMANIL BLUE 2BX  
AMANIL BORDEAUX B  
AMANIL BROWN D3G  
AMANIL BROWN MR  
AMANIL CATECHINE 3G  
AMANIL DEVELOPED BLACK BHSW  
AMANIL FAST BROWN BRL  
AMANIL FAST BROWN HP  
AMANIL FAST BROWN RLH  
AMANIL FAST ORANGE GLZ  
AMANIL FAST ORANGE PRZ  
AMANIL FAST RED FS  
AMANIL FAST SCARLET B  
AMANIL FAST VIOLET N  
AMANIL GARNET H  
AMANIL GARNET RB  
AMANIL GREEN B  
AMANIL GREEN GX

\*In current production, 1981.

BENZIDINE-BASED DYES  
(continued)

|                               |                               |
|-------------------------------|-------------------------------|
| AMANIL GREEN LT               | ATLANTIC CONGO RED            |
| AMANIL NAVY BLUE BHSW         | ATLANTIC DARK GREEN           |
| AMANIL ORANGE Y               | ATLANTIC DARK GREEN B         |
| AMANIL RAYON BROWN B          | ATLANTIC DARK GREEN BG        |
| AMANIL RUBINE R               | ATLANTIC FAST BROWN BRL       |
| AMANIL RUBINE R,Y             | ATLANTIC FAST ORANGE R        |
| AMANIL RUBINE Y               | ATLANTIC FAST ORANGE 3G       |
| AMANIL SUPRA BROWN LBL        | ATLANTIC FAST RED F           |
| AMIDINE BLACK RBN             | ATLANTIC FAST YELLOW PRA      |
| AMIDINE BLUE 2B CONC.         | ATLANTIC GARNET B             |
| AMIDINE BLUE 2BNB CONC.       | ATLANTIC GREEN WT             |
| AMIDINE BROWN DMB             | ATLANTIC GREEN 2B             |
| AMIDINE BROWN M CONC          | ATLANTIC RESIN FAST BROWN BRL |
| AMIDINE BROWN 3GC 250%        | ATLANTIC SCARLET B            |
| AMIDINE DARK GREEN N          | ATLANTIC VIOLET N             |
| AMIDINE FAST RED F NEW        | ATUL ACID MILLING RED G       |
| AMIDINE FAST SCARLET BN CONC. | ATUL CONGO RED                |
| AMIDINE GREEN GX              | ATUL DEVELOPED BLACK BT       |
| AMIDINE GREEN M SPECIAL       | ATUL DIRECT BLACK E           |
| AMIDINE GREEN 2BN             | ATUL DIRECT BLUE 2B           |
| AMIDINE VIOLET N              | ATUL DIRECT BORDEAUX BR       |
| AMINDINE VIOLET N             | ATUL DIRECT BROWN BN          |
| ANTHRA MILLING RED G          | ATUL DIRECT BROWN MR          |
| ANTHRA MILLING RED 3B         | ATUL DIRECT BROWN MY          |
| ANTHRA RED G                  | ATUL DIRECT DARK GREEN P      |
| ANTHRA RED 3B                 | ATUL DIRECT FAST ORANGE G     |
| ANTRACROMO YELLOW             | ATUL DIRECT FAST ORANGE R     |
| APOCID MILLING RED G          | ATUL DIRECT GARNET B          |
| APOMINE BLACK GX              | ATUL DIRECT GARNET B,BY       |
| APOMINE GREEN B               | ATUL DIRECT GARNET BY         |
| APOMINE GREEN GX              | ATUL DIRECT GREEN B           |
| ATLANTIC BLACK BD             | ATUL DIRECT GREEN G           |
| ATLANTIC BLACK C              | ATUL DIRECT GREEN P           |
| ATLANTIC BLACK E              | ATUL DIRECT VIOLET N          |
| ATLANTIC BLACK EA             | AZANOL MILLING SCARLET G      |
| ATLANTIC BLACK GAC            | AZINE BROWN M                 |
| ATLANTIC BLACK GG             | AZINE BROWN 2RG               |
| ATLANTIC BLACK GXCW           | AZINE BROWN 3G                |
| ATLANTIC BLACK GXOO           | AZINE CORINTH G               |
| ATLANTIC BLACK RW             | AZINE DARK GREEN BH/C         |
| ATLANTIC BLACK SD             | AZINE DEEP BLACK EW           |
| ATLANTIC BLUE 2B              | AZINE DEEP BLACK 3RL          |
| ATLANTIC BORDEAUX B           | AZINE DIAZO BLACK BHK         |
| ATLANTIC BROWN BCW            | AZINE FAST RED FC             |
| ATLANTIC BROWN BP             | AZINE GREEN BX                |
| ATLANTIC BROWN M              | AZINE LIGHT BROWN GR          |
| ATLANTIC BROWN 3GN            | AZINE SCARLET BX              |
| ATLANTIC CONGO BROWN G        | AZO MILLING RED G             |

BENZIDINE-BASED DYES  
(continued)

AZO MILLING RED 3B  
AZO MILLING YELLOW 3G  
AZOCARD BLACK EW  
AZOCARD BLACK RW  
AZOCARD BLUE BH  
AZOCARD BLUE 2B  
AZOCARD BROWN M  
AZOCARD BROWN 3G  
AZOCARD BROWN 3GR  
AZOCARD BROWN 5G  
AZOCARD DARK GREEN B  
AZOCARD FAST RED F  
AZOCARD GREEN B  
AZOCARD GREEN G  
AZOCARD RED CONGO  
AZOCARD VIOLET N  
AZOGEN BLACK BH  
AZOMINE BLACK BH  
AZOMINE BLACK EWO  
AZOMINE BLUE 2B  
AZOMINE BROWN M  
AZOMINE GREEN B  
BAYGENAL BROWN CTR  
BAYGENAL RED CG  
BELACHROME FAST YELLOW R  
BELACID MILLING RED G  
BELACID MILLING SCARLET 3R  
BELACID MILLING YELLOW R  
BELACID MILLING YELLOW 5G  
BELAMINE BLACK GX  
BELAMINE BLUE 2B  
BELAMINE BORDEAUX B  
BELAMINE DIAZO BLACK BH  
BELAMINE FAST BROWN BP  
BELAMINE FAST BROWN BRLL  
BELAMINE FAST BROWN M  
BELAMINE FAST ORANGE GL  
BELAMINE FAST RED FC  
BELAMINE FAST SCARLET B  
BELAMINE GREEN BX  
BENCIDAL BLACK E  
BENCIDAL BLACK RW  
BENCIDAL BLUE 2B  
BENCIDAL BROWN 3G  
BENCIDAL DARK GREEN B  
BENCIDAL FAST BROWN M  
BENCIDAL FAST RED F  
BENCIDAL FAST VIOLET N  
BENCIDAL GREEN B  
BENCIDAL NAVY BLUE BH  
BENCIDAL ORANGE R  
BENZAMIN BROWN RT  
BENZANOL FAST ORANGE GL  
BENZANIL BLACK BH  
BENZANIL BLACK E  
BENZANIL BLACK RW  
BENZANIL BLUE 2B  
BENZANIL BORDEAUX B  
BENZANIL BROWN BS  
BENZANIL BROWN GW  
BENZANIL BROWN M  
BENZANIL DARK GREEN BW  
BENZANIL FAST RED F  
BENZANIL GREEN B  
BENZANIL GREEN BN  
BENZANIL SCARLET B  
BENZANIL SUPRA BROWN BRLL  
BENZANIL SUPRA BROWN BRLN  
BENZANIL VIOLET N  
BENZANOL BRILLIANT BORDEAUX BN  
BENZANOL BRILLIANT SCARLET B  
BENZANOL BROWN CG  
BENZANOL BROWN GSR  
BENZANOL BROWN M  
BENZANOL FAST ORANGE RL  
BENZANOL FAST RED F  
BENZANOL GARNET  
BENZO BLACK BLUE BH  
BENZO BLACK BLUE FBH  
BENZO BLUE BBA-CF  
BENZO BLUE BBN-CF  
BENZO BLUE GS  
BENZO BORDEAUX B  
BENZO BROWN M  
BENZO BROWN MC  
BENZO CONGO RED  
BENZO CORINTH G  
BENZO CUPROL BLUE FBL  
BENZO DARK BROWN B  
BENZO DARK GREEN B  
BENZO DARK GREEN BA-CF  
BENZO DEEP BLACK E  
BENZO DEEP BLACK RW  
BENZO DEEP BROWN NZ  
BENZO FAST BROWN GRD-CF  
BENZO FAST COPPER BLUE FBL

BENZIDINE-BASED DYES  
(continued)

|                                 |  |
|---------------------------------|--|
| BENZO FAST COPPER BLUE FBLA-CF  | BRASILAMINA GARNET B                   |
| BENZO FAST RED F                | BRASILAMINA GREEN B                    |
| BENZO GREEN B                   | BRASILAMINA GREEN G                    |
| BENZO GREEN BG-CF               | BRASILAMINA VIOLET 3R                  |
| BENZO GREEN CA-CF               | BRASILAZOL BLACK BH                    |
| BENZO GREEN GA-CF               | BRILLIANT CHROME LEATHER BLACK H       |
| BENZO LEATHER BLACK E           | BRILLIANT MILLING RED R EXTRA          |
| BENZO LEATHER BLACK RW          | BRILLIANT MILLING RED RA               |
| BENZO ORANGE BROWN D3G          | BRILLIANT MILLING RED RA-CF            |
| BENZO SCARLET B                 | BRILLIANT MILLING YELLOW 6G            |
| BENZO VIOLET N                  | BRILLIANT YELLOW 6G                    |
| BENZOFORM BLACK BCN-CF          | BROWN M                                |
| BENZORCO MILLING RED 3BM        | BROWN 4EMBL                            |
| BENZYL FAST RED GRG             | BUCACID ORANGE R                       |
| BENZYL FAST YELLOW RS           | BUCACID SILK RED 3B                    |
| BENZYL RED GR                   | BUFFALO GARNET R                       |
| BENZYL RED GS                   | C.I. ACID ORANGE 45                    |
| BENZYL RED MG                   | C.I. ACID ORANGE 63                    |
| BENZYL RED MR                   | C.I. ACID RED 85                       |
| BENZYL RED RS                   | C.I. ACID RED 85, DISODIUM SALT        |
| BENZYL SCARLET BS               | C.I. ACID RED 89                       |
| BENZYL YELLOW 8G                | C.I. ACID RED 97, DISODIUM SALT        |
| BERKSHIRE DIAZO BLACK BH        | C.I. ACID YELLOW 42                    |
| BERKSHIRE DIAZO BLACK BHSW      | C.I. ACID YELLOW 42, DISODIUM SALT     |
| BERKSHIRE DIRECT BLACK RX       | C.I. ACID YELLOW 44                    |
| BERKSHIRE DIRECT BLUE 2B        | C.I. ACID YELLOW 44, DISODIUM SALT     |
| BERKSHIRE DIRECT BROWN 3GN      | C.I. DIRECT BLACK 4                    |
| BERKSHIRE DIRECT DARK GREEN WS  | C.I. DIRECT BLACK 4, DISODIUM SALT     |
| BERKSHIRE DIRECT FAST BROWN M   | C.I. DIRECT BLUE 158                   |
| BERKSHIRE DIRECT FAST ORANGE 3G | C.I. DIRECT BLUE 158, TETRASODIUM SALT |
| BERKSHIRE DIRECT GREEN BX       | C.I. DIRECT BLUE 2                     |
| BERKSHIRE DIRECT GREEN BXN      | C.I. DIRECT BLUE 2, TRISODIUM SALT     |
| BERKSHIRE DIRECT GREEN LTCW     | C.I. DIRECT BLUE 6                     |
| BERNACHROME YELLOW RG           | C.I. DIRECT BLUE 6, TETRASODIUM SALT   |
| BLACK 2EMBL                     | C.I. DIRECT BROWN                      |
| BLACK 3EMBL                     | C.I. DIRECT BROWN 1                    |
| BLACK 4EMBL                     | C.I. DIRECT BROWN 1, DISODIUM SALT     |
| BLUE BH                         | C.I. DIRECT BROWN 111                  |
| BLUE 2B                         | C.I. DIRECT BROWN 154                  |
| BLUE 2B SALT                    | C.I. DIRECT BROWN 154, DISODIUM SALT   |
| BORDEAUX DIRECT                 | C.I. DIRECT BROWN 2                    |
| BRASILAMINA BLACK GN            | C.I. DIRECT BROWN 2, DISODIUM SALT     |
| BRASILAMINA BLUE 2B             | C.I. DIRECT BROWN 31                   |
| BRASILAMINA BROWN GN            | C.I. DIRECT BROWN 31, TETRASODIUM SALT |
| BRASILAMINA BROWN GR            | C.I. DIRECT BROWN 59                   |
| BRASILAMINA CONGO 4B            | C.I. DIRECT BROWN 6                    |
| BRASILAMINA FAST BROWN 3RA      |  |
| BRASILAMINA FAST RED F          |  |

BENZIDINE-BASED DYES  
(continued)

|  |                            |
|--|----------------------------|
| C.I. DIRECT BROWN 6, DISODIUM SALT       | C.I. 23900                 |
| C.I. DIRECT BROWN 74                     | C.I. 23910                 |
| C.I. DIRECT BROWN 95                     | C.I. 24555                 |
| C.I. DIRECT GREEN                        | C.I. 30045                 |
| C.I. DIRECT GREEN 1                      | *C.I. 30120                |
| C.I. DIRECT GREEN 1, DISODIUM SALT       | *C.I. 30140                |
| C.I. DIRECT GREEN 6, DISODIUM SALT       | *C.I. 30145                |
| C.I. DIRECT GREEN 8                      | *C.I. 30235                |
| C.I. DIRECT ORANGE 1                     | *C.I. 30245                |
| C.I. DIRECT ORANGE 8                     | *C.I. 30280                |
| C.I. DIRECT ORANGE 8, DISODIUM SALT      | *C.I. 30295                |
| C.I. DIRECT RED 1                        | C.I. 30315                 |
| C.I. DIRECT RED 1, DISODIUM SALT         | *C.I. 35660                |
| C.I. DIRECT RED 10                       | *C.I. 36300                |
| C.I. DIRECT RED 10, DISODIUM SALT        | CALCOCID MILLING RED G     |
| C.I. DIRECT RED 13                       | CALCOCID MILLING RED GP    |
| C.I. DIRECT RED 13, DISODIUM SALT        | CALCOCID MILLING RED 3B    |
| C.I. DIRECT RED 28                       | CALCOCID MILLING YELLOW R  |
| C.I. DIRECT RED 28, DISODIUM SALT        | CALCODUR BROWN BRL         |
| C.I. DIRECT RED 37, DISODIUM SALT        | CALCOLOID DIAZO BLACK BHL  |
| C.I. DIRECT RED 89                       | CALCOMINE BLACK            |
| C.I. DIRECT VIOLET 1                     | CALCOMINE BLACK EXL        |
| C.I. DIRECT VIOLET 1, DISODIUM SALT      | CALCOMINE BLUE 2B          |
| C.I. DIRECT VIOLET 22                    | CALCOMINE BRIGHT GREEN     |
| C.I. DIRECT YELLOW 20                    | CALCOMINE BRIGHT GREEN BP  |
| C.I. MORDANT YELLOW 26                   | CALCOMINE BROWN B          |
| C.I. MORDANT YELLOW 26, TETRASODIUM SALT | CALCOMINE BROWN BN         |
| *C.I. 22120                              | CALCOMINE BROWN MCW        |
| *C.I. 22130                              | CALCOMINE BROWN MRS        |
| C.I. 22145                               | CALCOMINE BROWN RP         |
| C.I. 22155                               | CALCOMINE CATECHU 2B       |
| C.I. 22195                               | CALCOMINE DARK GREEN BG    |
| *C.I. 22240                              | CALCOMINE DIAZO BLACK BHD  |
| *C.I. 22245                              | CALCOMINE DIAZO BLACK BTCW |
| *C.I. 22310                              | CALCOMINE GARNET BY        |
| *C.I. 22311                              | CALCOMINE GREEN BY         |
| C.I. 22345                               | CALCOMINE GREEN GN         |
| C.I. 22370                               | CALCOMINE NAVY BL          |
| C.I. 22410                               | CALCOMINE RED FC           |
| C.I. 22480                               | CALCOMINE SCARLET B        |
| C.I. 22570                               | CALCOMINE SCARLET BL       |
| *C.I. 22590                              | CALCOMINE VIOLET N         |
| *C.I. 22610                              | CALCOMINE YELLOW BROWN K   |
| C.I. 22870                               | CALICO FLAVINE R           |
| C.I. 22880                               | CAMELON SCARLET G          |
| C.I. 22890                               | CARBIDE BLACK E            |
| C.I. 22910                               | CARBIDE BLACK ER           |
|  | CARBIDE BLACK FC           |

\*In current production, 1981.

BENZIDINE-BASED DYES  
(continued)

|                                |                                   |
|--------------------------------|-----------------------------------|
| CETIL ANTHRACENE RED 3B        | CHLORAZOL DARK GREEN PL           |
| CHLORAMINE BLACK BH            | CHLORAZOL FAST RED FP             |
| CHLORAMINE BLACK C             | CHLORAZOL FAST RED FS             |
| CHLORAMINE BLACK EC            | CHLORAZOL GREEN BN                |
| CHLORAMINE BLACK ERT           | CHLORAZOL GREEN BNP               |
| CHLORAMINE BLACK EX            | CHLORAZOL LEATHER BLACK BH        |
| CHLORAMINE BLACK EXR           | CHLORAZOL LEATHER BLACK ENP       |
| CHLORAMINE BLACK E2B           | CHLORAZOL PAPER BROWN             |
| CHLORAMINE BLACK W             | CHLORAZOL PAPER BROWN B           |
| CHLORAMINE BLACK XO            | CHLORAZOL PAPER GREEN BN          |
| CHLORAMINE BLUE 2B             | CHLORAZOL SILK BLACK G            |
| CHLORAMINE BROWN M             | CHLORAZOL VIOLET N                |
| CHLORAMINE BROWN MR            | CHOCOLATE EMBL                    |
| CHLORAMINE BROWN 2ME           | CHROMAZOL YELLOW CR               |
| CHLORAMINE BROWN 2R            | CHROME CITRONINE RD               |
| CHLORAMINE CARBON BLACK S      | CHROME FAST RED F                 |
| CHLORAMINE CARBON BLACK SJ     | CHROME FAST RED FB                |
| CHLORAMINE CARBON BLACK SN     | CHROME FAST RED FW                |
| CHLORAMINE FAST BROWN BRL      | CHROME LEATHER BLACK BH           |
| CHLORAMINE FAST CUTCH BROWN PL | CHROME LEATHER BLACK CR           |
| CHLORAMINE FAST RED            | CHROME LEATHER BLACK DS           |
| CHLORAMINE FAST RED F          | CHROME LEATHER BLACK E            |
| CHLORAMINE FAST RED FB         | CHROME LEATHER BLACK EC           |
| CHLORAMINE FAST RED FS         | CHROME LEATHER BLACK EM           |
| CHLORAMINE GARNET NR           | CHROME LEATHER BLACK ER           |
| CHLORAMINE GARNET R            | CHROME LEATHER BLACK FC           |
| CHLORAMINE GARNET RS           | CHROME LEATHER BLACK G            |
| CHLORAMINE GREEN B             | CHROME LEATHER BLACK RM           |
| CHLORAMINE GREEN BC            | CHROME LEATHER BLUE 2B            |
| CHLORAMINE GREEN 2B            | CHROME LEATHER BORDEAUX BC        |
| CHLORAMINE GREEN 3G            | CHROME LEATHER BRILLIANT BLACK ER |
| CHLORAMINE RED B               | CHROME LEATHER BROWN BRLL         |
| CHLORANTINE FAST BROWN BRLL    | CHROME LEATHER BROWN BRSL         |
| CHLORAZOL BLACK BH             | CHROME LEATHER BROWN BS           |
| CHLORAZOL BLACK E              | CHROME LEATHER BROWN M            |
| CHLORAZOL BLACK EA             | CHROME LEATHER BROWN 5G           |
| CHLORAZOL BLACK EN             | CHROME LEATHER DARK BLUE BHM      |
| CHLORAZOL BLACK LF             | CHROME LEATHER DARK GREEN N       |
| CHLORAZOL BLACK LFA            | CHROME LEATHER DARK GREEN S       |
| CHLORAZOL BLUE B               | CHROME LEATHER DARK GREEN S CONC. |
| CHLORAZOL BLUE BP              | CHROME LEATHER FAST RED N         |
| CHLORAZOL BORDEAUX B           | CHROME LEATHER GREEN B            |
| CHLORAZOL BORDEAUX BP          | CHROME LEATHER RED F              |
| CHLORAZOL BROWN LF             | CHROME LEATHER RED F EXTRA        |
| CHLORAZOL BROWN M              | CHROME LEATHER SCARLET BS         |
| CHLORAZOL BROWN MP             | CHROME PRINTING YELLOW RG         |
| CHLORAZOL BURL BLACK E         | CHROMINE YELLOW R                 |
| CHLORAZOL CORINTH GW           | CHROMO CITRONINE RD               |

BENZIDINE-BASED DYES

(continued)

|                              |                              |
|------------------------------|------------------------------|
| CHROMOCITRONINE              | COTTON GREEN G               |
| CHROMOCITRONINE R            | COTTON ORANGE R              |
| CHROMOTARTRINE CR            | COTTON RED L                 |
| CHRYSAMINE K                 | COTTON RED 10B               |
| CITRONINE YELLOW R           | COTTON RED 4BC               |
| COIR DEEP BLACK C            | COTTON RED 5B                |
| COIR DEEP BLACK R            | COTTON VIOLET R              |
| COLACID RED G                | CRESOTINE BLUE 2B            |
| COLUMBIA BROWN M             | CRESOTINE BORDEAUX BG        |
| COLUMBIA FAST RED F          | CRESOTINE BROWN RC           |
| CONGO BROWN G                | CRESOTINE DARK GREEN B       |
| CONGO CORINTH                | CRESOTINE FAST RED F         |
| CONGO CORINTH G              | CRESOTINE GREEN B            |
| CONGO CORINTH GW             | CRISPIN RED GM               |
| CONGO CORINTH MG             | CROMOCORIUM BROWN B          |
| CONGO RED                    | CROMOCORIUM BROWN TRB        |
| CONGO RED CR                 | CROMOCORIUM GREEN B          |
| CONGO RED F                  | CROMOCORIUM GREEN G          |
| CONGO RED H                  | CUPRANIL BROWN BCW           |
| CONGO RED ICI                | CUPRANIL BROWN BCWR          |
| CONGO RED L                  | CUPRANIL BROWN G             |
| CONGO RED M                  | CUPRODIAZOL LIGHT BLUE NL    |
| CONGO RED N                  | CUPROFIX BLUE C-FBL          |
| CONGO RED N FOR PAPER        | CUPROFIX BLUE CFBL           |
| CONGO RED R                  | CUPROFIX BROWN GL            |
| CONGO RED RS                 | CUPROFIX PRINTING BLUE C-FBL |
| CONGO RED W                  | CUTAMIN BRILLIANT RED CG     |
| CONGO RED WS                 | CUTAMIN BROWN CM             |
| CONGO RED 4B                 | CUTAMIN DARK BLUE CB         |
| CONGO RED 4BX                | CUTAMIN RED CF               |
| COOMASSI MILLING SCARLET GP  | CYANINE FAST SCARLET G       |
| COOMASSIE MILLING SCARLET G  | CYANINE FAST SCARLET 3B      |
| COOMASSIE MILLING SCARLET 5B | CYANINE FAST YELLOW M        |
| COOMASSIE RED PG             | DARAMENE SCARLET G           |
| COOMASSIE RED PGP            | DARAMENE YELLOW 2G           |
| COOMASSIE SCARLET G          | DARK GREEN EMBL              |
| COOMASSIE YELLOW R           | DERMA FAST BLUE CW-4R        |
| COOMASSIE YELLOW RP          | DERMA FAST BLUE CW4R         |
| COOMASSIE YELLOW 7G          | DERMA FAST BROWN W-GL        |
| COPRANTINE PURE BLUE 2RL     | DERMAFIX BROWN PL            |
| CORANIL SCARLET HERR         | DERMAFIX BROWN 2R            |
| CORACID SCARLET R            | DERMATOL YELLOW AGG          |
| CORINTH BROWN G              | DIACID MILLING YELLOW H5G    |
| COTTON BLACK MT              | DIACIDE ORANGE R             |
| COTTON BORDEAUX R            | DIACOTTON BLACK BH           |
| COTTON CORINTH G             | DIACOTTON BLUE BB            |
| COTTON FAST ORANGE G         | DIACOTTON BORDEAUX GS        |
| COTTON GREEN B               | DIACOTTON BORDEAUX KS        |

BENZIDINE-BASED DYES  
(continued)

DIACOTTON BROWN CB  
DIACOTTON BROWN M  
DIACOTTON BROWN 3G  
DIACOTTON CONGO RED  
DIACOTTON DARK GREEN  
DIACOTTON FAST RED F  
DIACOTTON GREEN B  
DIALUMINOUS BROWN BRS  
DIMACIDE YELLOW F-RA CONC.  
DIMACIDE YELLOW F-RA CONC. C  
DIAMINE BLACK BH  
DIAMINE BLACK BHM  
DIAMINE BLUE  
DIAMINE BLUE BB  
DIAMINE BLUE 2B  
DIAMINE BORDEAUX B  
DIAMINE BORDEAUX BA-CF  
DIAMINE BORDEAUX BC  
DIAMINE BORDEAUX CGN  
DIAMINE BROWN B  
DIAMINE BROWN BC  
DIAMINE BROWN M  
DIAMINE BROWN MBA-CF  
DIAMINE BROWN MR  
DIAMINE BROWN MRC  
DIAMINE BROWN 3GN  
DIAMINE BROWN 3GN-CF  
DIAMINE BROWN 3GPA  
DIAMINE DARK GREEN B  
DIAMINE DARK GREEN N  
DIAMINE DEEP BLACK RW  
DIAMINE DIRECT BLACK RW  
DIAMINE FAST RED F  
DIAMINE FAST RED FA-CF  
DIAMINE FAST RED N  
DIAMINE FAST RED OJCD  
DIAMINE GREEN  
DIAMINE GREEN B  
DIAMINE GREEN G  
DIAMINE GREEN GM  
DIAMINE SCARLET BA-CF  
DIAMINE VIOLET N  
DIAMINOGENE VELOUR BLACK B  
DIANIL DARK BLUE H  
DIAPHTAMINE BLACK BH  
DIAPHTAMINE BLACK MT  
DIAPHTAMINE BLUE BB  
DIAPHTAMINE BROWN M  
DIAPHTAMINE BROWN 3G  
DIAPHTAMINE BROWN 3GC  
DIAPHTAMINE BROWN 3GR  
DIAPHTAMINE FAST BLACK FE  
DIAPHTAMINE FAST BROWN TB  
DIAPHTAMINE FAST ORANGE PG  
DIAPHTAMINE FAST ORANGE PGS  
DIAPHTAMINE FAST RED B  
DIAPHTAMINE FAST RED FC  
DIAPHTAMINE GREEN B  
DIAPHTAMINE GREEN GX  
DIAPHTAMINE LIGHT BROWN BRLL  
DIAPHTAMINE ORANGE R  
DIAPHTAMINE VIOLET N  
DIAPHTAMINE BROWN B  
DIAZAMINE BROWN 2R  
DIAZAMINE ORANGE BO  
DIAZINE BLACK BHC  
DIAZINE BLACK H  
DIAZINE BLACK HDW  
DIAZINE BLACK HNJ  
DIAZINE BLUE 2B  
DIAZINE BROWN M  
DIAZINE BROWN MWR  
DIAZINE BROWN OR  
DIAZINE DARK GREEN BO  
DIAZINE DARK GREEN P  
DIAZINE DIRECT BLACK BR  
DIAZINE DIRECT BLACK R  
DIAZINE FAST BROWN RSL  
DIAZINE FAST RED F  
DIAZINE GREEN B  
DIAZINE GREEN DB  
DIAZINE VIOLET N  
\*DIAZO BLACK BH  
DIAZO BLACK BHN-CF  
DIAZO BLACK BHSW  
DIAZO BLACK BHSWK  
DIAZO BLACK CR  
DIAZO BLACK RW  
DIAZO BROWN DDL  
DIAZO BROWN MC  
DIAZO DIRECT BLACK N  
DIAZO FAST BLACK BH  
DIAZO FAST BLACK MBH  
DIAZO NAVY BLUE BH  
DIAZOL BLACK BH  
DIAZOL BLACK ER

\*In current production, 1981.



BENZIDINE-BASED DYES  
(continued)

|                             |                           |
|-----------------------------|---------------------------|
| DIAZOL BLACK ERN            | DIPHENYL FAST BROWN M     |
| DIAZOL BLACK GREEN N        | DIPHENYL FAST BROWN MD    |
| DIAZOL BLUE 2B              | DIPHENYL FAST RED B       |
| DIAZOL BORDEAUX B           | DIPHENYL FAST RED F       |
| DIAZOL BORDEAUX TV          | DIPHENYL GARNET RB        |
| DIAZOL BRILLIANT ORANGE JN  | DIPHENYL GREEN BB         |
| DIAZOL BRILLIANT ORANGE 2JN | DIPHENYL GREEN BY         |
| DIAZOL BRILLIANT ORANGE 2RN | DIPHENYL GREEN C          |
| DIAZOL BROWN B              | DIPHENYL GREEN GPD        |
| DIAZOL BROWN M              | DIPHENYL GREEN KG         |
| DIAZOL CUTCH F              | DIPHENYL GREEN MB         |
| DIAZOL CUTCH FB             | DIPHENYL RED B            |
| DIAZOL FAST RED F           | DIPHENYL RED BROWN GR     |
| DIAZOL FAST RED FS          | DIPHENYL RED BS           |
| DIAZOL GREEN B              | DIPHENYL SCARLET BS       |
| DIAZOL GREEN BJ             | DIRECT BLACK BH           |
| DIAZOL GREEN BLACK N        | DIRECT BLACK D            |
| DIAZOL GREEN J              | *DIRECT BLACK E 200%      |
| DIAZOL LIGHT BROWN BRN      | DIRECT BLACK EW           |
| DIAZOL ORANGE 3R            | DIRECT BLACK FR           |
| DIAZOL SCARLET B            | DIRECT BLACK GAC          |
| DIAZOL VIOLET N             | DIRECT BLACK GREEN        |
| DIAZOPHENYL BLACK BH        | DIRECT BLACK GREEN N      |
| DIAZOPHENYL BROWN R         | DIRECT BLACK GW           |
| DICOREL BROWN LMR           | *DIRECT BLACK GX 200%     |
| DIMACIDE RED F-2J           | DIRECT BLACK CXR          |
| DIMACIDE YELLOW F-R         | DIRECT BLACK JET          |
| DIPHENYL BLUE BLACK GHS     | DIRECT BLACK K            |
| DIPHENYL BLUE BLACK MBH     | DIRECT BLACK META         |
| DIPHENYL BLUE KF            | DIRECT BLACK METHYL       |
| DIPHENYL BLUE M2B           | DIRECT BLACK MR           |
| DIPHENYL BLUE 2B            | DIRECT BLACK N            |
| DIPHENYL BORDEAUX BX        | DIRECT BLACK R            |
| DIPHENYL BROWN BS           | DIRECT BLACK RW           |
| DIPHENYL BROWN BVV          | DIRECT BLACK RW EX. CONC. |
| DIPHENYL BROWN GR           | DIRECT BLACK RWN          |
| DIPHENYL BROWN GRI          | DIRECT BLACK RX           |
| DIPHENYL BROWN MG           | *DIRECT BLACK RX 125%     |
| DIPHENYL BROWN RG           | DIRECT BLACK SD           |
| DIPHENYL BROWN TB           | DIRECT BLACK WS           |
| DIPHENYL BROWN V            | DIRECT BLACK 2R           |
| DIPHENYL BROWN 3GT          | DIRECT BLACK 3RX          |
| DIPHENYL BROWN 3RB          | *DIRECT BLACK 4           |
| DIPHENYL DARK GREEN B       | DIRECT BLACK 4RX          |
| DIPHENYL DARK GREEN BN      | *DIRECT BLACK 38          |
| DIPHENYL DEEP BLACK VN      | DIRECT BLUE A             |
| DIPHENYL FAST BROWN BRL     | DIRECT BLUE BB            |
| DIPHENYL FAST BROWN F       | DIRECT BLUE BLACK BH      |

BENZIDINE-BASED DYES  
(continued)

|                            |                            |
|----------------------------|----------------------------|
| DIRECT BLUE GS             | DIRECT BROWN TRB           |
| DIRECT BLUE K              | DIRECT BROWN ZHKH          |
| DIRECT BLUE M2B            | DIRECT BROWN 1             |
| *DIRECT BLUE 2             | *DIRECT BROWN 154          |
| DIRECT BLUE 2B             | *DIRECT BROWN 2            |
| DIRECT BLUE 2B CONC.       | *DIRECT BROWN 2R           |
| DIRECT BLUE 2B HT          | DIRECT BROWN 3B            |
| *DIRECT BLUE 2B 250%       | DIRECT BROWN 3G            |
| *DIRECT BLUE 6             | *DIRECT BROWN 3GN          |
| DIRECT BORDEAUX            | DIRECT BROWN 3GO           |
| DIRECT BORDEAUX A          | DIRECT BROWN 3RB           |
| DIRECT BORDEAUX AN         | *DIRECT BROWN 31           |
| DIRECT BORDEAUX B          | DIRECT BROWN 5GR           |
| DIRECT BORDEAUX BG         | *DIRECT BROWN 6            |
| DIRECT BORDEAUX BN         | *DIRECT BROWN 74           |
| DIRECT BORDEAUX TV         | *DIRECT BROWN 95           |
| DIRECT BRILLIANT GREEN BB  | *DIRECT CATECHINE 3G       |
| DIRECT BRILLIANT GREEN C   | DIRECT CHROME BROWN G      |
| DIRECT BRILLIANT GREEN CBM | DIRECT CLARET              |
| DIRECT BRILLIANT ORANGE JN | *DIRECT CONGO RED 4B       |
| DIRECT BRILLIANT ORANGE 3R | DIRECT COPPER BLUE FB      |
| DIRECT BRILLIANT ORANGE 5G | DIRECT COTTON CONGO RED 4B |
| DIRECT BRILLIANT VIOLET 2R | DIRECT DARK BLUE BH        |
| DIRECT BROWN B             | DIRECT DARK BROWN B        |
| *DIRECT BROWN B 125%       | DIRECT DARK GREEN          |
| *DIRECT BROWN BCW          | DIRECT DARK GREEN A        |
| DIRECT BROWN BCW EX. CONC. | DIRECT DARK GREEN B        |
| *DIRECT BROWN BRL          | DIRECT DARK GREEN B HT     |
| DIRECT BROWN BS            | DIRECT DARK GREEN BF       |
| DIRECT BROWN BSB           | DIRECT DARK GREEN BG       |
| DIRECT BROWN BY            | DIRECT DARK GREEN MB       |
| DIRECT BROWN CMD           | DIRECT DARK GREEN S        |
| DIRECT BROWN CMD CONC.     | DIRECT DARK GREEN SUPRA    |
| DIRECT BROWN DB            | DIRECT DARK GREEN WS       |
| DIRECT BROWN D3G           | DIRECT DEEP BLACK E        |
| DIRECT BROWN D3Y           | DIRECT DEEP BLACK EA-CF    |
| DIRECT BROWN FS            | DIRECT DEEP BLACK EAC      |
| DIRECT BROWN G             | DIRECT DEEP BLACK EW       |
| DIRECT BROWN GR            | DIRECT DEEP BLACK RW       |
| DIRECT BROWN JJ            | DIRECT DEEP BLACK RWA-CF   |
| DIRECT BROWN KKH           | DIRECT DEEP GREEN A        |
| *DIRECT BROWN M            | DIRECT DIAZO BLACK         |
| DIRECT BROWN MB            | DIRECT DIAZO BLACK C       |
| DIRECT BROWN MHT           | DIRECT DIAZO BLACK N       |
| DIRECT BROWN MR            | DIRECT DIAZO BLACK RW      |
| DIRECT BROWN M2GS          | DIRECT DIAZO BLACK S       |
| DIRECT BROWN RC            | DIRECT FAST BLUE 2B        |
| DIRECT BROWN RMR           | *DIRECT FAST BLUE 2B CONC. |

\*In current production, 1981.

BENZIDINE-BASED DYES

(continued)

|                        |                                |
|------------------------|--------------------------------|
| DIRECT FAST BROWN B    | DIRECT GREEN WAC               |
| DIRECT FAST BROWN BP   | *DIRECT GREEN WS               |
| DIRECT FAST BROWN BRL  | *DIRECT GREEN 1                |
| DIRECT FAST BROWN LMR  | DIRECT GREEN 2B                |
| DIRECT FAST BROWN M    | *DIRECT GREEN 6                |
| DIRECT FAST BROWN MM   | DIRECT GREEN 8                 |
| DIRECT FAST BROWN RZ   | DIRECT LIGHT BROWN BJN         |
| DIRECT FAST BROWN TSN  | DIRECT LIGHT BROWN BRS         |
| DIRECT FAST BROWN TWC  | DIRECT LIGHTFAST BROWN M       |
| DIRECT FAST BROWN V    | DIRECT LIGHTFAST PURE BLUE 2KU |
| DIRECT FAST BROWN VR   | DIRECT NAVY BLUE BH            |
| DIRECT FAST BROWN 2M   | DIRECT ORANGE G                |
| DIRECT FAST ORANGE G   | DIRECT ORANGE R                |
| DIRECT FAST ORANGE MNG | DIRECT ORANGE RN               |
| DIRECT FAST ORANGE P   | DIRECT ORANGE 1                |
| *DIRECT FAST ORANGE R  | DIRECT ORANGE 2RR              |
| DIRECT FAST ORANGE 3G  | DIRECT ORANGE 3R               |
| DIRECT FAST RED B      | *DIRECT ORANGE 8               |
| *DIRECT FAST RED F     | *DIRECT PAPER ORANGE R CONC.   |
| DIRECT FAST RED F HT   | DIRECT RED C                   |
| DIRECT FAST RED FN     | DIRECT RED DC-CF               |
| DIRECT FAST RED FR     | DIRECT RED F                   |
| DIRECT FAST RED G      | DIRECT RED FR                  |
| DIRECT FAST RED MF     | DIRECT RED K                   |
| *DIRECT FAST SCARLET B | DIRECT RED KH                  |
| DIRECT FAST SCARLET BS | DIRECT RED M                   |
| DIRECT FAST VIOLET MN  | DIRECT RED MN                  |
| DIRECT FAST VIOLET N   | DIRECT RED M10B                |
| DIRECT FAST VIOLET NHT | DIRECT RED R                   |
| DIRECT GARNET B        | DIRECT RED Y                   |
| DIRECT GARNET BY       | *DIRECT RED 1                  |
| DIRECT GARNET BYD      | DIRECT RED 10                  |
| DIRECT GARNET LG       | DIRECT RED 10B                 |
| DIRECT GARNET R        | DIRECT RED 13                  |
| DIRECT GREEN A         | *DIRECT RED 28                 |
| DIRECT GREEN B         | *DIRECT RED 37                 |
| DIRECT GREEN BN        | DIRECT RED 89                  |
| DIRECT GREEN BP        | DIRECT ROSE MN                 |
| *DIRECT GREEN BX       | DIRECT SCARLET B               |
| DIRECT GREEN BXN       | DIRECT SCARLET BS              |
| DIRECT GREEN F2G       | DIRECT SUPRA LIGHT BROWN ML    |
| DIRECT GREEN G         | DIRECT VIOLET C                |
| DIRECT GREEN GX        | DIRECT VIOLET FR               |
| DIRECT GREEN J         | DIRECT VIOLET K                |
| DIRECT GREEN JA        | DIRECT VIOLET N                |
| DIRECT GREEN MB        | DIRECT VIOLET R                |
| *DIRECT GREEN MT 150%  | DIROCHROME BROWN G             |
| DIRECT GREEN TG        | DURAZOL BROWN BR               |

\*In current production, 1981.

BENZIDINE-BASED DYES  
(continued)

DURAZOL COPPER BLUE FB  
DUROFAST BROWN BRL  
DUROFAST BROWN BRLAW  
DUROSOL MILLING RED G  
ELBENYL YELLOW BN  
ELCOFAST BROWN B CONC.  
ELCOFAST CATECHINE 3G  
ELCOFAST RED FD  
ELCOMINE BLUE 2B 250%  
ELCOMINE BROWN 3GN  
ELCOMINE BROWN 3GNP  
ELCOMINE CONGO RED  
ELCOMINE GREEN MT 150%  
ELCOMINE GREEN WT  
ELCOMINE ORANGE RP CONC.  
ELCOMINE SCARLET B  
ELCOMINE VIOLET BW  
ELCOMINE VIOLET BW 200  
ELCOMINE VIOLET 3R CONC.  
ELIAMINA LIGHT BROWN BRL  
ELITE FAST RED G  
ELITE FAST RED GRS  
ENIANIL BLACK CN  
ENIANIL BLACK RCN  
ENIANIL BLUE 2BN  
ENIANIL BROWN 3GO  
ENIANIL DARK GREEN BG  
ENIANIL FAST BROWN M  
ENIANIL FAST RED F  
ENIANIL GREEN B  
ENIANIL GREEN BBN  
ENIANIL GREEN GO  
ENIANIL LIGHT BROWN BRL  
ENIANIL ORANGE 2RR  
ENIANIL VIOLET NN  
ENIAZOL BLUE BLACK BHN  
ERIE BLACK B  
ERIE BLACK BF  
ERIE BLACK GAC  
ERIE BLACK GXOO  
ERIE BLACK JET  
ERIE BLACK NUG  
ERIE BLACK RB  
ERIE BLACK RF  
ERIE BLACK RRAC  
ERIE BLACK RW  
ERIE BLACK RX  
ERIE BLACK RXOO  
ERIE BORDEAUX B  
ERIE BRILLIANT BLACK S  
ERIE BROWN CN  
ERIE BROWN 3GN  
ERIE CATECHINE 3G  
ERIE CONGO 4B  
ERIE CONGO 4BP  
ERIE FAST BROWN B  
ERIE FAST BROWN GR  
ERIE FAST BROWN G2R  
ERIE FAST BROWN 3RB  
ERIE FAST BROWN 3RBD  
ERIE FAST ORANGE G  
ERIE FAST RED FD  
ERIE FIBRE BLACK VP  
ERIE GARNET B  
ERIE GARNET B  
ERIE GARNET WD  
ERIE GREEN GPD  
ERIE GREEN MT  
ERIE GREEN TCM  
ERIE GREEN WAC  
ERIE GREEN WT  
ERIE ORANGE 2R  
ERIE SCARLET B  
ERIE VIOLET 3R  
ERIO FAST YELLOW RL  
ERIOCHROME FLAVINE R  
ERIONYL RED G  
ERIOSIN RED R  
FAST BROWN 3GN  
FAST DISCHARGE BROWN RG  
FAST RED F  
FAST SCARLET B CONC.  
FAST SCARLET S  
FAST SILK YELLOW SH  
FAST YELLOW P  
FASTOLITE BRILLIANT BORDEAUX BN  
FASTOLITE BROWN BRL  
FASTOLITE ORANGE GL  
FASTOLITE ORANGE RL  
FASTUSOL BROWN LBRS  
FASTUSOL BROWN LBRSB  
FASTUSOL BROWN LBRSN  
FENAFOR RED PG  
FENAFOR YELLOW F5G  
FENAFOR YELLOW P  
FENALUZ BROWN BRL

BENZIDINE-BASED DYES

(continued)

FENAMIN BLACK E  
FENAMIN BLACK RW  
FENAMIN BLUE 2B  
FENAMIN BORDEAUX B  
FENAMIN BROWN BP  
FENAMIN BROWN M  
FENAMIN BROWN PBL  
FENAMIN BROWN 3G  
FENAMIN DIAZO BROWN RL  
FENAMIN DIAZO BROWN 4RL  
FENAMIN FAST BROWN G  
FENAMIN FAST RED F  
FENAMIN GREEN A  
FENAMIN GREEN B  
FENAMIN GREEN G  
FENAMIN GREEN M  
FENAMIN NAVY BLUE H  
FENAMIN ORANGE R  
FENAMIN SCARLET B  
FENAMIN SCARLET BP  
FENAZO RED FG  
FENAZO RED FR  
FENAZO YELLOW S  
FIBRE BLACK VF  
FINISH BROWN BR  
FIXANOL BLACK E  
FIXANOL BLUE BH  
FIXANOL BLUE 2B  
FIXANOL BROWN LF  
FIXANOL BROWN M  
FIXANOL GREEN BN  
FIXANOL RED FS  
FIXANOL VIOLET N  
FOLAN FAST SCARLET 4R  
FOLAN RED G  
FOLAN YELLOW G  
FOLAN YELLOW 7G  
FORMALINE BLACK C  
FORMIC BLACK C  
FORMIC BLACK CW  
FORMIC BLACK EA  
FORMIC BLACK MTG  
FORMIC BLACK MTR  
FORMIC BLACK TG  
FORMO DIRECT BLUE 2B  
FORMO DIRECT BORDEAUX GS  
FORMO DIRECT BROWN CB  
FORMO DIRECT BROWN M  
FORMO DIRECT CONGO RED  
FORMO DIRECT DARK GREEN B  
HAEMOMEDICAL  
HAEMONORM  
HAVANA EMB  
HELION BROWN BRSL  
HELION ORANGE 2G  
HEMORRHAGYL  
HEXADERM RED MRG  
HISPACID MILLING SCARLET 3GN  
HISPACID MILLING SCARLET 3G  
HISPACID MILLING YELLOW 5G  
HISPALUZ BROWN BRL  
HISPAMIN BLACK EF  
HISPAMIN BLACK 3RX  
HISPAMIN BLUE 2B  
HISPAMIN BROWN CTN  
HISPAMIN BROWN DB  
HISPAMIN CONGO 4B  
HISPAMIN FAST BROWN NZ  
HISPAMIN FAST BROWN 3R2B  
HISPAMIN FAST RED FN  
HISPAMIN GARNET BF  
HISPAMIN GREEN B  
HISPAMIN GREEN GO  
HISPAMIN GREEN WT  
HISPAMIN ORANGE PGN  
HISPAMIN ORANGE PR  
HISPAMIN ORANGE R  
HISPAMIN VIOLET 3R  
HONEY YELLOW 3GN  
INDIGO BLUE 2B  
INDOXINE KL  
INTERMET BRILLIANT BLUE 2BL  
INTRALITE FAST BROWN BRLL  
INTRALITE FAST SCARLET BNLL  
INTRALITE SCARLET BNLL  
INTRAMET BRILLIANT BLUE 2BL  
INTRAMET BRILLIANT BLUE 2BL  
INTRANYL SCARLET R  
INTRAZONE FAST ORANGE 2RN  
INTRAZONE FAST RED GRG  
JAPANOL BLACK BHK  
JAPANOL BROWN M  
JAPANOL BROWN RA  
JAPANOL FAST RED F  
JAPANOL FAST RED 1

BENZIDINE-BASED DYES  
(continued)

|                              |                             |
|------------------------------|-----------------------------|
| JAPANOL VIOLET J             | MILLING RED JR              |
| KAYAKU CONGO RED             | MILLING RED MG              |
| KAYAKU DIRECT BLACK BH       | MILLING RED SWG             |
| KAYAKU DIRECT BLUE BB        | MILLING RED 2J              |
| KAYAKU DIRECT BROWN M        | MILLING RED 3B              |
| KAYAKU DIRECT BROWN 3G       | MILLING SCARLET DH          |
| KAYAKU DIRECT DARK GREEN B   | *MILLING SCARLET G          |
| KAYAKU DIRECT FAST RED F     | MILLING SCARLET R           |
| KAYAKU DIRECT GREEN B        | MILLING SCARLET 2G          |
| KAYAKU DIRECT SCARLET B      | MILLING SCARLET 5B          |
| KAYAKU DIRECT SCARLET B NEW  | MILLING YELLOW H5G          |
| KAYANOL MILLING RED PG       | MILLING YELLOW H5GA         |
| KAYANOL RED PG               | MILLING YELLOW H5GA-CF      |
| KAYARUS SUPRA BROWN BRS      | MILLING YELLOW MR           |
| KAYARUS SUPRA SCARLET BNL    | MILLING YELLOW NGS          |
| KCA ACID MILLING YELLOW M    | MILLING YELLOW NGS 1828     |
| KCA LIGHT FAST BROWN BR      | MILLING YELLOW R            |
| KCA SILK RED G               | MILLING YELLOW RX           |
| KOROSTAN RED G               | MILLING YELLOW 3G           |
| LANAPERL FAST RED 3G         | MILLING YELLOW 3J           |
| LANAPERL FAST YELLOW GR      | MILLING YELLOW 6G           |
| LANAPERL RED G               | MILLING YELLOW 7J           |
| LIBIA BROWN B                | MILLING YELLOW 7JL          |
| LIGHT FAST BROWN BR          | mitsui CONGO RED            |
| MAHOGANY EMBL                | mitsui DIRECT BLACK BH      |
| MELANTHERINE BH              | mitsui DIRECT BLUE 2BN      |
| MELANTHERINE BHX             | mitsui DIRECT BROWN GR      |
| METACHROME RED F             | mitsui DIRECT BROWN M       |
| METADIAZOL BROWN 2JO         | mitsui DIRECT BROWN 3G      |
| METADIAZOL BROWN 3JO         | mitsui DIRECT CORINTH G     |
| METADIAZOL BROWN 4JO         | mitsui DIRECT DARK GREEN BX |
| MIDLON ORANGE PR             | mitsui DIRECT FAST RED F    |
| MIDLON RED PG                | mitsui DIRECT GREEN BC      |
| MIDLON YELLOW PR             | mitsui DIRECT GREEN GC      |
| MIDLON YELLOW PROPYL         | mitsui DIRECT SCARLET BS    |
| MILLING BRILLIANT SCARLET GN | mitsui DIRECT VIOLET LN     |
| MILLING FAST ORANGE R        | mitsui MILLING SCARLET G    |
| MILLING FAST ORANGE 2R       | MORDANT YELLOW 26           |
| MILLING FAST RED G           | NAILAMIDE BROWN V-DB        |
| MILLING FAST RED GL          | NAILAMIDE GREEN V-DB        |
| MILLING FAST RED PG          | NAILAMIDE ORANGE S-2R       |
| MILLING FAST SCARLET 4R      | NAILAMIDE RED S-G           |
| MILLING FAST YELLOW R        | NAILAMIDE RED V-DF          |
| MILLING FAST YELLOW 5G       | NAILAMIDE YELLOW S-R        |
| MILLING ORANGE R             | NAILAMIDE YELLOW S-5G       |
| MILLING RED A                | NAPTHAMINE BLUE 2B          |
| MILLING RED G                | NAPTHAMINE BORDEAUX B       |
| MILLING RED J                | NAPTHAMINE BROWN DC         |

BENZIDINE-BASED DYES  
(continued)

|                               |                            |
|-------------------------------|----------------------------|
| NAPHTHAMINE BROWN D3G         | OPTANOL YELLOW R           |
| NAPHTHAMINE DARK GREEN B      | OPTANOL YELLOW 5G          |
| NAPHTHAMINE FAST RED F        | ORCO MILLING RED S         |
| NAPHTHAMINE GREEN B           | ORCO MILLING RED 3BM       |
| NAPHTHAMINE VIOLET?N          | ORCOACID MILLING RED RN    |
| NAPHTHALENE LEATHER GREEN BL  | ORCOLITEFAST ORANGE GLZ    |
| NAPHTHALENE LEATHER SCARLET G | ORCOMINE CONGO RED         |
| NAPHTHALENE LEATHER YELLOW 2G | ORCOMINE DARK GREEN WS     |
| NAVY BLUE EMBL                | ORCOMINE RED F             |
| NEKLAMIN BLACK BH             | ORCOMINE SCARLET B         |
| NEKLAMIN BROWN M              | PAK CONGO RED              |
| NEUTRAL RED PG                | PAK DIRECT BLUE 2B         |
| NIAGARA BLUE 2B               | PAK DIRECT BORDEAUX B      |
| NIPPON BLUE BB                | PAK DIRECT FAST BROWN M    |
| NIPPON BORDEAUX GS            | PAK DIRECT GREEN B         |
| NIPPON BROWN RG               | PAK DIRECT GREEN G         |
| NIPPON BROWN 3G               | PAK FAST BORDEAUX B        |
| NIPPON CORINTH G              | PAK ORANGE RED             |
| NIPPON DARK GREEN B           | PANDURANCITRONINE R        |
| NIPPON DARK GREEN B CONC      | PAPER BLACK RW             |
| NIPPON DEEP BLACK RL          | PAPER DEEP BLACK R         |
| NIPPON DEEP BLACK RL EXTRA    | PAPER GREEN BG             |
| NIPPON DEEP BLACK 3RL         | PAPER ORANGE R             |
| NIPPON FAST BROWN CB          | PAPER ORANGE RP            |
| NIPPON GREEN B                | PAPER SCARLET BAP          |
| NIPPON ORANGE R               | PAPER SCARLET BP           |
| NIPPON SCARLET B              | PARALDEHYDE BLACK RW       |
| NIPPON VIOLET LN              | PARAMINE BLACK BH          |
| NITTO ACID RED PG             | PARAMINE BLUE 2B           |
| NITTO DIRECT FAST BROWN GR    | PARAMINE BROWN G           |
| NITTO DIRECT ORANGE R         | PARAMINE FAST BROWN M      |
| NITTO DIRECT SCARLET B        | PARAMINE FAST RED F        |
| NYANZA FAST BROWN M           | PARAMINE FAST SCARLET B    |
| NYANZA FAST RED FA            | PARAMINE FAST VIOLET N     |
| NYANZA VIOLET B               | PARAMINE GREEN B           |
| NYLOMINE ACID GREEN P-2B      | PARAMINE GREEN BN          |
| NYLOMINE ACID RED C-R         | PARANOL FAST BROWN BRL     |
| NYLOMINE ACID SCARLET C-R     | PEERACID MILLING YELLOW 6G |
| NYLOMINE ACID SCARLET P-R     | PEERAMINE CONGO RED        |
| NYLOMINE ACID YELLOW CRS      | PEERAMINE FAST BROWN BRL   |
| NYLOMINE ACID YELLOW P-5R     | PELACID SCARLET R          |
| NYLOMINE YELLOW C-R           | PERCHROME YELLOW GL        |
| NYLON FAST RED SWG            | PHARMACINE YELLOW R        |
| *NYLON FAST SCARLET PG        | PHARMAGLO RED G            |
| NYLOSAN PRINTING YELLOW PR    | PHARMAGLO RED 2B           |
| OPTANOL FAST SCARLET GN       | PHARMANIL SCARLET Y        |
| OPTANOL ORANGE PRD            | PHARMATEX YELLOW G         |
| OPTANOL SCARLET GS            | PHENAMINE BLACK RW         |

\*In current production, 1981.

BENZIDINE-BASED DYES

(continued)

PHENAMINE BLUE BB  
PHENAMINE BLUE BBN  
PHENAMINE BORDEAUX B  
PHENAMINE BROWN MB  
PHENAMINE BROWN 3G  
PHENAMINE DARK GREEN B  
PHENAMINE FAST BROWN GR  
PHENAMINE FAST BROWN T  
PHENAMINE FAST BROWN TSL  
PHENAMINE FAST BROWN TWC  
PHENAMINE FAST RED F  
PHENAMINE GREEN BG  
PHENAMINE GREEN C  
PHENAMINE GREEN G  
PHENAMINE GREEN YY  
PHENAMINE SCARLET B  
PHENAZO BLACK BH  
PHENAZO BROWN R  
PHENO BLUE 2B  
PHENO BRIGHT GREEN  
PHENO BROWN MRS  
PHENO BROWN RP  
PHENO BROWN 3GXX  
PHENO FAST RED F  
PHENO NAVY BLUE  
PHENO VIOLET N  
POLAN BORDEAUX BS  
POLAN DARK GREEN BS  
POLAN RED FS  
POLAN SCARLET 2G  
POLAN VIOLET RS  
POLAN YELLOW 6G  
POLAR RED G  
POLAR RED GSUPRA  
POLAR YELLOW R  
POLOXAL BROWN 3GL  
POLOXAL YELLOW RD  
POLYCOR DARK GREEN S  
POLYCOR RED GS  
PONTACYL SCARLET R  
PONTAMINE BLACK RRX  
PONTAMINE BLUE BB  
PONTAMINE BORDEAUX B  
PONTAMINE BROWN  
PONTAMINE BROWN BCW  
PONTAMINE BROWN BT  
PONTAMINE BROWN N3G  
PONTAMINE BROWN RMR  
PONTAMINE BROWN XR  
PONTAMINE DEEP BLUE BH  
PONTAMINE DIAZO BLACK BHSW  
PONTAMINE DIAZO BROWN R  
PONTAMINE FAST BROWN BRL  
PONTAMINE FAST BROWN NP  
PONTAMINE FAST RED F  
PONTAMINE FAST RED FCB  
PONTAMINE GARNET R  
PONTAMINE GREEN BXN  
PONTAMINE GREEN GXN  
PONTAMINE GREEN S  
PONTAMINE SCARLET B  
PONTAMINE VIOLET N  
PYRAZOL BLACK ER  
PYRAZOL BLACK W  
PYRAZOL BLUE 2BX  
PYRAZOL BORDEAUX GL  
PYRAZOL BROWN ADX  
PYRAZOL BROWN D3Y  
PYRAZOL BROWN MP  
PYRAZOL BROWN MR  
PYRAZOL BROWN PL  
PYRAZOL BROWN TM  
PYRAZOL BROWN TW  
PYRAZOL BROWN 2R  
PYRAZOL DARK RED BR, BRY, R  
PYRAZOL FAST BROWN B  
PYRAZOL FAST BROWN BRL  
PYRAZOL GREEN BC  
PYRAZOL GREEN BP  
PYRAZOL GREEN F2G  
PYRAZOL GREEN G  
PYRAZOL GREEN GB  
PYRAZOL GREEN 2B  
PYRAZOL ORANGE RB  
PYRAZOL RED BR  
PYRAZOL RED C  
PYRAZOLINE BROWN BRL  
PYRAZOLON FAST ORANGE GN  
RESIN FAST BLACK WP  
RESOFIX BLUE C2RL  
ROYCEPULP FAST ORANGE R  
SANDOLAN MILLING YELLOW N-66  
SANDOLAN PRINTING YELLOW PR  
SANDOPEL DARK GREEN B  
SATURN BROWN LBR  
SELLA FAST RED C



BENZIDINE-BASED DYES  
(continued)

SHIKISO ACID ANTHRACENE RED G  
SHIKISO ACID ANTHRACENE RED 3BL  
SHIKISO ACID FAST YELLOW MR  
SHIKISO ACID RED PG  
SHIKISO DIRECT DARK GREEN B  
SHIKISO DIRECT SCARLET BX  
SHOWA DIRECT FAST BROWN GR  
SILK ORANGE R  
SILK RED G  
SILK RED 3B  
SILK SCARLET G  
SIRIUS SUPRA BROWN BRL  
SIRIUS SUPRA BROWN BRS  
SOLAMIDINE B  
SOLAMINE LIGHT SCARLET B  
SOLANTINE BROWN BRL  
SOLAR BROWN PL  
SOLAR MILLING RED 3B  
SOLAR SCARLET BL  
SOLEX BROWN R  
SOLIUS LIGHT BROWN BRLL  
SOLIUS LIGHT BROWN BRS  
SOLIUS LIGHT SCARLET BNL  
SOLOPHENYL SCARLET BNL  
SOLUBILISED VAT BLUE 6  
SOLUCONGO  
SUGAI CONGO RED  
SUGAI DIRECT BROWN M  
SUGAI DIRECT ORANGE R  
SULFAN YELLOW PR  
SULFON RED J  
SULFON SCARLET R  
SULFON YELLOW PR  
SULFONINE RED G  
SULFONINE RED GN  
SULFONINE RED GS  
SULFONINE RED SG  
SULFONINE YELLOW CSR  
SULFONINE YELLOW PR  
SULPHON YELLOW RS-CF  
SULPHONOL RED PG  
SUMILIGHT SUPRA BROWN BRS  
SUMILIGHT SUPRA BROWN BRS FOR  
SUMILIGHT SUPRA SCARLET BNS  
SUMINOL BRILLIANT SCARLET DH  
SUMINOL MILLING BRILLIANT YELLOW 5G  
SUMINOL MILLING ORANGE R  
SUMINOL MILLING RED PG  
SUMINOL MILLING RED 3B  
SUMINOL MILLING YELLOW MR  
SUMINOL MILLING YELLOW RS  
SUMINOL RED PG  
SUMINOL YELLOW MR  
SUMITOMO ACID ANTHRACENE RED 3BL  
SUMITOMO FAST SCARLET G  
SUMITOMO MILLING YELLOW H5G  
SUNCHROMINE FAST YELLOW RR  
SUPERCHROME YELLOW GRN  
SUPERNYLITE SCARLET G  
SUPRANOL FAST SCARLET GN  
SUPRANOL RED PG  
SUPRANOL RED PG-CF  
SUPRANOL SCARLET BN  
SUPRANOL SCARLET GN  
SUPRANOL SCARLET GS  
SUPRANOL YELLOW R  
SUPRANOL YELLOW RA  
SUPRAZO BROWN BRL  
SUPREXCEL BROWN BRL  
SUPREXCEL SCARLET BNLL  
SYMULON ACID FAST YELLOW MR  
SYMULON ACID RED PG  
SYMULON DIRECT BLACK BH  
SYMULON DIRECT BORDEAUX NS  
SYMULON DIRECT BROWN GR  
SYNODIRECT BLUE 2B 100%  
SYNODIRECT ORANGE Y 100%  
SYNODIRECT RED 4B 100%  
TAKAOKA DIRECT ORANGE R  
TAKAOKA DIRECT BROWN CB  
TARDIREKT BROWN M  
TARDIREKT GREEN B  
TARDIREKT RED K  
TELON FAST SCARLET N  
TERTRACID MILLING RED AGE  
TERTRACID MILLING RED A3B  
TERTRACID MILLING RED G  
TERTRACID MILLING YELLOW H5G  
TERTRACID MILLING YELLOW R  
TERTRACID MILLING YELLOW 3R  
TERTRODIRECT BLACK BH  
TERTRODIRECT BLACK BHS  
TERTRODIRECT BLACK RW  
TERTRODIRECT BLUE 2B  
TERTRODIRECT BORDEAUX B  
TERTRODIRECT BORDEAUX CG

BENZIDINE-BASED DYES

(continued)

|                                 |                           |
|---------------------------------|---------------------------|
| TERTRODIRECT BROWN B            | VILMAMIN BORDEAUX B       |
| TERTRODIRECT BROWN CGN          | VILMAMIN CONGO RED        |
| TERTRODIRECT BROWN G            | VILMAMIN DARK BROWN B     |
| TERTRODIRECT BROWN MJ           | VILMAMIN DARK GREEN B     |
| TERTRODIRECT BROWN OXP          | VILMAMIN FAST RED F       |
| TERTRODIRECT BROWN TB           | VILMAMIN GREEN B          |
| TERTRODIRECT FAST BROWN BR      | VILMAMIN BROWN M          |
| TERTRODIRECT GREEN B            | VILMANOL FAST RED G       |
| TERTRODIRECT GREEN BG           | VILMANOL FAST YELLOW R    |
| TERTRODIRECT GREEN G            | VILMANOL FAST YELLOW 5G   |
| TERTRODIRECT LIGHT SCARLET BNL  | VISCO GREEN G             |
| TERTRODIRECT ORANGE PG          | VONDACEL BLACK RW         |
| TERTRODIRECT PONCEAU B          | VONDACEL BLUE 2B          |
| TERTRODIRECT RED C              | VONDACEL BORDEAUX B       |
| TERTRODIRECT RED F              | VONDACEL BROWN BN         |
| TERTRODIRECT VIOLET N           | VONDACEL BROWN G          |
| TETRAMINE BROWN S               | VONDACEL BROWN M          |
| TETRAMINE FAST BROWN BRDN EXTRA | VONDACEL BROWN S          |
| TETRAMINE FAST BROWN BRP        | VONDACEL BROWN SP         |
| TETRAMINE FAST BROWN BRS        | VONDACEL DARK BLUE BH     |
| TETRAZO DEEP BLACK R            | VONDACEL GREEN B          |
| TRIAANTINE BROWN BRS            | VONDACEL GREEN DB         |
| TRIAANTINE FAST BROWN OG        | VONDACEL GREEN G          |
| TRIAANTINE FAST BROWN OR        | VONDACEL ORANGE P         |
| TRIAANTINE LIGHT BROWN BRS      | VONDACEL RED CL           |
| TRIAANTINE LIGHT BROWN OG       | VONDACEL RED FN           |
| TRIAZOL BROWN B                 | VONDAMOL BRILLIANT RED BG |
| TRIAZOL FAST SCARLET B          | VONDAMOL BRILLIANT RED G  |
| TRISULFON BROWN M               | VONDAMOL FAST RED G       |
| TRISULFON BROWN TW              | VONDAMOL FAST YELLOW H5G  |
| TRISULFON BROWN TWP             | WOOL SCARLET B            |
| TRISULFON BROWN 3R              | XYLENE MILLING RED G      |
| TRISULFON CONGO RED             | XYLENE MILLING RED R      |
| TRISULFON GARNET BR             | XYLENE MILLING RED 3BA    |
| TRISULFON GARNET BRY            | XYLENE MILLING YELLOW SH  |
| TRISULFON VIOLET N              | XYLENE MILLING YELLOW 6G  |
| TRISULPHONE BROWN B             | ZAMBESI DARK BLUE BH      |
| ULTRA FLAVINE NS                |                           |
| UNION BORDEAUX BB               |                           |
| UNION BROWN DR                  |                           |
| UNION DARK GREEN B              |                           |
| UNION FAST NAVY BLUE DS         |                           |
| UNION FAST RED 3B               |                           |
| UNION FAST SCARLET B            |                           |
| VEGENTINE FAST BROWN B          |                           |
| VILMALUZ FAST BROWN BRS         |                           |
| VILMAMIN BLACK RW               |                           |
| VILMAMIN BLUE GS                |                           |

o-TOLIDINE-BASED DYES

\*ACID BLACK 209  
ACID LEATHER RED BG  
\*ACID RED 114  
\*ACID RED 167  
ACNA NAPHTHOL G  
AIREDALE RED RM  
AIREDALE SCARLET 3BD  
ALPHANOL FAST RED R  
AMACID MILLING RED PBS  
\*AMACID MILLING RED PRS  
AMANIL CHROME NAVY BLUE B  
AMANIL FAST SCARLET 3B  
AMANIL NAPHTHOL AS-G  
AMANIL PURPURINE 4B  
\*AMANIL PURPURINE 4B CONC.  
AMANIL SKY BLUE  
AMANIL SKY BLUE R  
AMANIL TOLUYLENE ORANGE Y  
AMARTHOL AS-G  
AMIDINE BLUE 4B  
AMIDINE ORANGE GG  
AMIDINE SCARLET 3B  
ANSIGEN YELLOW GN  
ARLANTHOL AS-G  
ARLANTHOL ASG  
\*ATANYL RED RS  
ATLANTIC DIRECT CHROME BLACK BLUE BA  
CONC.  
ATLANTIC DIRECT NEW BLUE 5B  
ATLANTIC DIRECT NEW BLUE 5B CONC.  
ATLANTIC DIRECT ORANGE YA 125%  
ATLANTIC FAST BROWN BR-NB CONC.  
ATLANTIC MILLING RED B  
ATLANTIC MILLING RED SWB  
\*ATLANTIC PRINTING ORANGE R  
\*ATLANTIC PRINTING ORANGE R DBL. SOLN.  
\*ATLANTIC PRINTING ORANGE R PDR.  
\*ATLANTIC PRINTING YELLOW GN DBL.  
SOLN.  
\*ATLANTIC PRINTING YELLOW GS DBL.  
SOLN.  
\*ATLANTIC PRINTING YELLOW GS PDR.  
\*ATLANTIC PRINTING YELLOW 2G PDR.  
ATLANTIC PURPURINE 4B CONC.  
ATLANTIC RESIN FAST BROWN BR-NB  
\*ATLANTIC SCARLET 3B  
\*ATANYL RED NJ  
ATUL DIRECT RED 4B  
AZAMIN 4B  
AZIDINBLAU 3B  
AZIDINE BLUE 3B  
AZOCARD RED 4B  
AZOGEN ORANGE R  
AZOGEN YELLOW GG SOLN.  
AZOGEN YELLOW GN  
AZOGEN YELLOW GS  
\*AZOIC ORANGE COMPOSITION 3  
\*AZOIC YELLOW COMPOSITION 1  
\*AZOIC YELLOW COMPOSITION 2  
\*AZOIC YELLOW COMPOSITION 3  
AZOPRINT YELLOW GG  
AZOPRINT YELLOW GS  
AZURRO DIRETTO 3B  
BELACID MILLING RED B  
BENCIDAL BLUE 3B  
BENCIDAL PURPLE 4B  
BENZAMINBLAU 3B  
BENZAMINE BLUE  
BENZAMINE BLUE 3B  
BENZANIL BLUE R  
BENZANIL BLUE 3BN  
BENZANIL PURPURINE 4B  
BENZANIL SCARLET 3B  
BENZANOL BRILLIANT SCARLET 3B  
BENZO BLUE  
BENZO BLUE 3B  
BENZO BLUE 3BS  
BENZO NEW BLUE 5B-CF  
BENZO NEW BLUE 5BFS  
BENZO NEW BLUE 5BS  
BENZO ORANGE PG  
BENZO PURPURINE 4B  
BENZO PURPURINE 4BS  
BENZO RED 3B  
BENZOBLAU 3B  
BENZOPURPURIN 4B  
BENZOPURPURINE 4B  
BENZOPURPURINE 4B  
\*BENZOPURPURINE 4B EX. CONC.  
BENZOPURPURINE 4B SPECIAL  
BENZOPURPURINE 4BKX  
BENZOPURPURINE 4BX  
BENZYL FAST RED BG  
BENZYL RED BR  
BENZYL SCARLET 3BS  
BERKSHIRE DIRECT PURPURINE 4B

\*In current production, 1981.

o-TOLIDINE-BASED DYES  
(continued)

BLEU DIAMINE  
BLEU DIAZOLE N 3B  
BLEU DIRECTE 3B  
BLEU TRYPANE N  
BLEUE DIRETTO 3B  
BLUE EMB  
BLUE 3B  
BRASILAMINA BLUE 3B  
BRASILAMINA RED 4B  
BRASILAMINA BLUE 3B  
BUCACID MILLING RED B  
C.I. ACID RED 114  
C.I. ACID RED 167  
C.I. AZOIC COUPLING COMPONENT 5  
C.I. AZOIC ORANGE 3  
C.I. AZOIC YELLOW 1  
C.I. AZOIC YELLOW 2  
C.I. AZOIC YELLOW 3  
C.I. DIRECT BLUE 14  
C.I. DIRECT BLUE 25  
C.I. DIRECT BLUE 25, TETRASODIUM SALT  
C.I. DIRECT BLUE 26  
C.I. DIRECT ORANGE 6, DISODIUM SALT  
C.I. DIRECT RED 2  
C.I. DIRECT RED 2, DISODIUM SALT  
C.I. DIRECT RED 39  
C.I. DIRECT RED 39, DISODIUM SALT  
C.I. DIRECT YELLOW 95  
\*C.I. 23365  
\*C.I. 23375  
\*C.I. 23500  
\*C.I. 23630  
\*C.I. 23635  
\*C.I. 23790  
\*C.I. 23850  
\*C.I. 31930  
\*C.I. 37090  
\*C.I. 37120  
\*C.I. 37610  
CALCOMINE BENZO PURPURINE 4BX  
CALCOMINE RED 4BX  
CALCOMINE SCARLET 3B  
CALGENE YELLOW GG  
CALGENE YELLOW GS  
\*CARTA BLUE 3B  
\*CARTA RED 3B  
CENTRALINE BLUE 3B  
CHLORAMINBLAU 3B  
CHLORAMINE BLUE  
CHLORAMINE BLUE 3B  
CHLORAMINE NEW BLUE 5B  
CHLORAMINE RED 3B  
CHLORAZOL BLUE 3B  
\*CHROME LEATHER BLUE 3B  
CHROME LEATHER RED 4B  
CHROME LEATHER SCARLET 3BS  
CIBANAPHTHOL AG  
CITAZOLO YELLOW G  
CONGO BLUE  
CONGO BLUE 3B  
CONGOBLAU 3B  
COOMASSIE RED 2R  
COTTON RED 4B  
COTTON RED 4BS  
COTTON RED 4BS CONC.  
COTTON RED 4BS SUPRA  
CRESOTINE BLUE 3B  
\*CUPROPHENYL YELLOW 3GL  
DAITO GROUNDER G  
DERMA BLUE 5B  
DIACETYLACETOTOLIDIDE  
DIACOTTON BENZOPURPURINE 4B  
DIAMINBLAU 3B  
DIAMINE BLUE 3B  
DIAMINE PURPURINE 4B  
DIAMINE RED 4B  
DIAMINE SCARLET 3BA-CF  
DIAMINEBLUE  
DIANIL BLUE  
DIANIL BLUE B  
DIANIL BLUE H3G  
DIANIL RED 4B  
DIANILBLAU  
DIANILBLAU H3G  
DIAPHTAMINE BLUE TH  
DIAPHTAMINE FAST SCARLET 3B  
DIAPHTAMINE PURPURINE 4B  
DIAZAMINE ORANGE GG  
DIAZAMINE PURPURINE 4B  
DIAZINE BLUE 3B  
DIAZINE RED 4B  
\*DIAZO BLACK BH-NB  
DIAZOL BLUE 3B  
DIAZOL PURE BLUE BR  
DIAZOL PURE BLUE BRA  
DIAZOL PURPURINE 4B

\*In current production, 1981.

o-TOLIDINE BASED DYES  
(continued)

DIAZOL SCARLET 3B  
DIMACIDE RED F-RB  
DIMACIDE RED F-RBA  
DIPHENYL BLUE 3B  
\*DIPHENYL BLUE 3B CONC.  
DIPHENYL BLUE 3B EX. CONC.  
\*DIPHENYL BRILLIANT BLUE 5B  
\*DIPHENYL GREEN BBN  
DIPHENYL ORANGE GG  
DIPHENYL RED 3BS  
DIPHENYL RED 4B  
\*DIPHENYL RED 4BS  
DIPHENYL RED 4BS SUPRA  
DIPHENYL SCARLET 3BS  
DIRECT BLUE D3B  
DIRECT BLUE FFN  
DIRECT BLUE H3G  
DIRECT BLUE M3B  
DIRECT BLUE 26  
\*DIRECT BLUE 2B-NB  
DIRECT BLUE 3B  
\*DIRECT BLUE 3B CONC.  
DIRECT BLUE 3BX  
DIRECT BLUE 5B  
DIRECT BRILLIANT BLUE BC  
DIRECT BRILLIANT BLUE 5BC  
\*DIRECT BRILLIANT BLUE 5BC CONC.  
\*DIRECT BROWN BRL-NB 200%  
\*DIRECT BROWN GG-NB  
\*DIRECT BROWN M-NB  
\*DIRECT BROWN US-NB  
\*DIRECT BROWN 230  
\*DIRECT CHROME BLUE BLACK B. EX. CONC.  
DIRECT CHROME DARK BLUE 2B  
\*DIRECT FAST BROWN BCW-NB  
\*DIRECT FAST BROWN BP-NB CONC.  
\*DIRECT FAST BROWN BR-NB CONC.  
\*DIRECT FAST BROWN BRLT  
DIRECT FAST BROWN 3RLT  
\*DIRECT FAST ORANGE Y 125%  
DIRECT FAST RED 3B  
DIRECT FAST SCARLET 3B  
\*DIRECT NEW BLUE 5B  
\*DIRECT NEW BLUE 5B CONC.  
DIRECT ORANGE G  
DIRECT ORANGE T  
DIRECT ORANGE 6  
DIRECT PURE BLUE 5B  
DIRECT PURPURINE M4B  
\*DIRECT PURPURINE 4B  
DIRECT RED DCB  
DIRECT RED 2  
\*DIRECT RED 39  
DIRECT RED 4A  
DIRECT RED 4B  
\*DIRECT SCARLET 3B  
DIRECT SCARLET 3BS  
\*DIRECT YELLOW 95  
DIRECTAKOL BLUE 3BL  
DIRECTBLAU 3B  
DIROCHROME DARK BLUE B  
DITOLYBIS(AZONAPHTHIONIC ACID)  
DURGAGEN YELLOW GS  
DURGAGEN YELLOW GG  
ECLIPSE RED  
ELBENYL RED BN  
ELBENYL SCARLET 3BD  
ELCOMINE BENZOPURPURINE  
ELCOMINE SCARLET 3B  
ELITE FAST RED B  
ELITE FAST RED BG  
ENIAGEM YELLOW GS  
ENIAGEM YELLOW 3G  
ENIANIL PURPURINE 4B  
ERIE BENZO 4BP  
ERIE ORANGE Y  
ERIE RED 4B  
ERIE SCARLET 3B  
\*ERIONYL RED RS  
\*ERIONYL RED RS 125%  
\*ERIONYL RED RS, RS 125%  
FAST SCARLET  
FENAFOR RED PB  
FENAMIN BLUE 4B  
FENAMIN SCARLET 3B  
FOLAN RED B  
FORMONOL RED RS  
GARUDA SOGA GARAM KOENING N  
HILTONAPHTHOL AS-G  
HISPAMIN BLUE DB  
HISPAMIN BLUE 3BX  
HISPAMIN RED 4B  
HOSTAGEN ORANGE R  
HOSTAGEN YELLOW GN  
HOSTAGEN YELLOW GS  
\*INTRAZONE RED BR

\*In current production, 1981.

o-TOLIDINE BASED DYES  
(continued)

KAMBOFAST YELLOW GGH  
KAMBOGEN ORANGE R  
KAMBOTHOL AS-G  
KAMBOTHOL ASG  
KAYAKU BENZOPURPURINE 4B  
KAYAKU DIRECT SCARLET 3B  
KAYANOL MILLING RED RS  
KIWA GROUNDER G  
KOROSTAN RED PRS  
LANAPERL FAST RED R  
LEATHER FAST RED B  
\*LEVANOL FAST RED GG NEW  
MIDLON RED PRS  
MILLING FAST RED B  
MILLING FAST RED R  
\*MILLING RED B  
MILLING RED BB  
\*MILLING RED G-NB  
MILLING RED PBX  
MILLING RED R  
MILLING RED RB  
MILLING RED RBA  
\*MILLING RED SWB  
\*MILLING RED SWB CONC.  
MITSUI BENZOPURPURINE 4BX  
MITSUI DIRECT SCARLET 3BX  
MITSUI NAPHTHOZOL G  
NAILAMIDE RED S-R  
NAPHTAMINE BLUE 2B  
NAPHTAMINE BLUE 3BX  
NAPHTANILIDE G  
NAPHTAZOL I  
NAPHTAZOL J  
NAPHTHAMINBLAU 3BX  
NAPHTHAMINE BLUE 3BX  
NAPHTHANIL G  
NAPHTHOIDE G  
NAPHTHOL AS-G  
NAPHTHOL AS-G DISPERSIBLE  
NAPHTHOL AS-G SOLN.  
NAPHTHOL AS-G SUPRA  
NAPHTHOL ASG  
NAPHTHOL ASG 20% SOLN.  
NAPHTHYLAMINE BLUE  
NAPHTO G  
NAPHTOELAN G  
NAPHTOL AS-G  
NAPHTOL AS-G SUPRA  
\*NEUTRAZOIC GOLDEN YELLOW R  
\*NEUTRAZOIC GOLDEN YELLOW R PDR.  
NEUTRAZOIC ORANGE R PDR.  
\*NEUTRAZOIC YELLOW GS  
\*NEUTRAZOIC YELLOW GS PDR.  
\*NEUTRAZOIC YELLOW 2G  
\*NEUTRAZOIC YELLOW 2G PDR.  
NIAGARA BLUE  
NIAGARA BLUE 3B  
NIAGARA BLUE 5B  
NIAGARA CHROME BLUE BLACK B  
NIKKAGEN YELLOW G  
NIPPON NEW BLUE 5BS  
NIPPON ORANGE GG  
NOVANYL RED F-R  
NYLOMINE RED C-2R  
\*NYLON FAST RED RM  
NYLONSAN RED F-RS  
\*NYLOSAN RED F-BR  
NYLOSAN RED F-RS  
OPTANOL RED RS  
ORCOACID MILLING RED RS  
ORCOACID MILLING RED RS 125%  
ORCOMINE SCARLET 3B  
\*PADAZOIC GOLDEN YELLOW RLL PDR.  
\*PADAZOIC ORANGE GR PDR.  
\*PADAZOIC YELLOW G PDR.  
PAPER BLUE 1  
PAPER RED 4BS  
\*PAPER RED 4BS CONC.  
PAPER SCARLET 3BP  
PARAMINE BLUE 3B  
PARAMINE FAST SCARLET 3B  
PARKIBLEU  
PARKIPAN  
PENETRATING BLACK AM-NB  
PERGASIZE RED G  
\*PERGASOL BLUE 3B CONC.  
\*PERGASOL BRILLIANT BLUE 5B  
\*PERGASOL GREEN BBN  
PERGASOL RED 3BS  
\*PERGASOL RED 4BS CONC.  
PHARMASOL GOLDEN YELLOW N  
PHARMASOL ORANGE R  
PHARMASOL YELLOW GN  
PHARMOL GOLDEN YELLOW N  
PHARMOL ORANGE R  
PHARMOL YELLOW GN

\*In current production, 1981.

o-TOLIDINE BASED DYES  
(continued)

PHENAMINE BLUE 5B  
PHENAMINE PURPURINE 4B  
PHENAMINE SCARLET 3B  
PHENO FAST SCARLET 4B  
PIPHENYL GREEN BBN  
POLAN RED B  
\*POLAR RED B  
POLAR RED B CONC.  
POLAR RED RS  
\*POLAR RED RS CONC. 125%  
POLOGEN YELLOW GN  
POLYDOGEN ORANGE R  
POLYDOGEN YELLOW G  
POLYDOGEN YELLOW GG  
POLYDOGEN YELLOW NK-G  
PONTAMINE BLUE 3BX  
PONTAMINE BLUE 5B  
PONTAMINE SCARLET 3B  
PRINTING ORANGE LR  
PRINTING ORANGE R  
PRINTING ORANGE R SOLN.  
PRINTING YELLOW GA  
PRINTING YELLOW GN  
PRINTING YELLOW GS  
PRINTING YELLOW 2G  
PROMPT PRINTING YELLOW GGH  
PURPURIN 4B  
PURPURINE 4B  
PYAZOL NEW BLUE  
\*PYRAZOL BLACK BF  
\*PYRAZOL BLUE 3B  
\*PYRAZOL DARK GREEN 3B  
\*PYRAZOL NEW BLUE 5B  
\*PYRAZOL RED 3B  
PYROTROPBLAU  
RAPID FAST YELLOW GGH  
RAPIDOGEN GOLDEN YELLOW R  
RAPIDOGEN YELLOW GS  
RAPRICOL LEMON YELLOW 3G  
RAPRICOL YELLOW GGH  
RAPRIGEN YELLOW GG  
RAPRIGEN YELLOW GS  
RENOLBLAU 3B  
ROMAGENE YELLOW GS  
RONAGEN ORANGE R  
RONAGEN YELLOW G  
RONAGEN YELLOW GS  
RONAGEN YELLOW 2G  
SANATOL AS-G  
SANATOL G  
SANDOLAN RED N-RS  
\*SANDOLAN RED N-3B  
\*SELLA FAST BLACK FC  
SELLA FAST RED RS  
SELLA FAST RED V  
SHIKISO DIRECT SCARLET 3B  
SINAGEN YELLOW G  
SINAGEN YELLOW 2G  
SOLOPHENYL ORANGE ARL  
SOLUNAPTOL YL  
STABAGENE YELLOW 2G  
SULPHONOL RED R  
SULTAN RED 4B  
SUMIKA FAST YELLOW GGH  
SUMINOL MILLING RED RS  
\*SUPERNYLITE SCARLET B  
SUPRANOL FAST RED GG  
SUPRANOL RED PBX  
SUPRANOL RED PBX-CF  
SUPRANOL RED R  
TELON FAST RED GG  
\*TELON FAST RED GG NEW  
TERTRACID MILLING RED B  
TERTRODIRECT RED 4B  
THIUGEN YELLOW G  
THIUGEN YELLOW GG  
TOLUYLENE ORANGE G  
TOLUYLENE ORANGE GR  
TRIANOL DIRECT BLUE 3B  
TRIAZOL FAST SCARLET 3B  
TRIAZOLBLAU 3BX  
TRYPAN BLUE  
TRYPAN BLUE BPC  
TRYPAN BLUE SODIUM SALT  
TRYPANBLAU  
TRYPANE BLUE  
TULAGENE YELLOW 2G  
TULATHOL AS-G  
ULTRAZOL G  
UNION FAST SCARLET 3B  
VILMAMIN PURPURINE 4B  
VILMANOL FAST RED R  
VONDAMOL FAST RED RS  
WINOFAST YELLOW GGH  
WINSOGEN YELLOW GS  
WOOL SCARLET 3B

\*In current production, 1981.

o-DIANISIDINE-BASED DYES

ACCO NAF-SOL AS-BR  
ACCO NAPHTHOL AS-BR  
AIREDALE BLUE D  
AIREDALE BLUE FFD  
AIREDALE BLUE NGLD  
AIREDALE BLUE RWD  
AIZEN DIRECT SKY BLUE 5BH  
\*#AMAFAST BLUE 16BLL  
\*#AMAFAST BLUE 3GAV CONC.  
#AMAFAST BLUE 3RLP LIQ.  
#AMAFAST BLUE 3RLP PST.  
\*#AMAFAST BLUE 7RLL  
\*AMAFAST BLUE ARF  
\*#AMAFAST BOND BLUE 10 GLP CONC.  
\*#AMAFAST BOND BLUE 10 GLP LIQ.  
AMANIL AZURINE G  
AMANIL BLUE RW  
AMANIL BLUE 2BX  
AMANIL NAPHTHOL AS-BR  
AMANIL SKY BLUE  
\*AMANIL SKY BLUE FF  
\*AMANIL SKY BLUE M LIQUID  
\*AMANIL SKY BLUE 6B  
AMANIL SUPRA BLUE 9GL  
AMARTHOL AS-BR  
AMARTHOL FAST BLUE B BASE  
AMIDINE SKY BLUE 5B EX.  
ATLANTIC AZURINE G  
\*ATLANTIC AZURINE G CONC.  
ATLANTIC BLUE RW  
ATLANTIC DIAZO FAST BLUE MP  
ATLANTIC DIRECT BLUE R CONC.  
ATLANTIC DIRECT BLUE RW  
\*ATLANTIC DIRECT BLUE RW 100%  
\*ATLANTIC DIRECT BLUE 2BNB  
ATLANTIC DIRECT BOND BLUE B  
ATLANTIC DIRECT SKY BLUE M LIQ.  
ATLANTIC DIRECT SKY BLUE 6B CONC.  
ATLANTIC DIRECT SKY BLUE 6B EX. 200%  
ATLANTIC DIRECT SKY BLUE 6B EX. 300%  
\*ATLANTIC PRINTING BLACK FOR PDR.  
\*ATLANTIC PRINTING BLACK 2B PDR.  
\*ATLANTIC PRINTING BLACK 3G PDR.  
\*ATLANTIC PRINTING BLUE D PDR.  
\*ATLANTIC PRINTING BLUE D-BC PDR.  
\*ATLANTIC PRINTING BLUE GB PDR.  
\*ATLANTIC PRINTING BROWN BR PDR.  
\*ATLANTIC PRINTING BROWN GGN PDR.  
ATLANTIC PRINTING NAVY BLUE IR PDR.  
\*#ATLANTIC RESIN FAST BLUE ARL  
\*#ATLANTIC RESIN FAST BLUE BFL  
\*#ATLANTIC RESIN FAST BLUE BLA 150%  
\*#ATLANTIC RESIN FAST BLUE BLC  
\*#ATLANTIC RESIN FAST BLUE BRN  
\*#ATLANTIC RESIN FAST BLUE FFBL  
\*#ATLANTIC RESIN FAST BLUE LBGL  
\*#ATLANTIC RESIN FAST BLUE LLGG  
\*#ATLANTIC RESIN FAST BLUE LLU  
\*#ATLANTIC RESIN FAST BLUE LLU 200%  
\*#ATLANTIC RESIN FAST BLUE LLUG  
\*#ATLANTIC RESIN FAST BLUE RLX  
\*#ATLANTIC RESIN FAST BLUE UGLL  
\*#ATLANTIC RESIN FAST BLUE 16BLL CONC  
\*#ATLANTIC RESIN FAST BLUE 2RLL  
\*#ATLANTIC RESIN FAST BLUE 3GLL  
\*#ATLANTIC RESIN FAST BLUE 5GLL  
\*#ATLANTIC RESIN FAST BLUE 6GKS  
\*#ATLANTIC RESIN FAST BLUE 7GUL  
\*#ATLANTIC RESIN FAST BLUE 8BGI 200%  
\*#ATLANTIC RESIN FAST BLUE 8GLN  
\*#ATLANTIC RESIN FAST BLUE 8GUM  
\*#ATLANTIC RESIN FAST BLUE 9GLR  
\*ATLANTIC RESIN FAST GREY LVL  
ATLANTIC SKY BLUE A  
\*ATLANTIC SKY BLUE A EX. CONC.  
ATLANTIC SKY BLUE A SUPER CONC. 12%  
\*ATLANTIC SKY BLUE FF EX. CONC.  
ATLANTIC SKY BLUE FF  
ATLANTIC SKY BLUE 6B  
\*ATLANTIC SKY BLUE 6B CONC.  
\*ATLANTIC STABLE BLUE B PDR.  
ATUL DIRECT BLUE G  
ATUL DIRECT BLUE X  
ATUL DIRECT SKY BLUE  
ATUL DIRECT SKY BLUE FB  
AZINE BRILLIANT BLUE RW  
AZINE BRILLIANT BLUE 6B  
AZINE COPPER BLUE 2B  
AZINE SKY BLUE 5B  
AZOANTHRENE JET BLACK K EX. CONC.  
AZOANTHRENE ROYAL BLUE L  
AZOCARD BLUE 6B  
AZOENE FAST BLUE B BASE  
AZOENE FAST BLUE B SALT  
AZOFORM BLUE FO

\*In current production, 1981.

#Metallized dye



o-DIANISIDINE-BASED DYES  
(continued)

|                                  |   |
|----------------------------------|---|
| AZOGEN BLUE D                    | BRASILAMINA COPPER BLUE R               |
| AZOGEN BLUE GN                   | BRASILAMINA SKY BLUE 6B                 |
| AZOGENE FAST BLUE B              | BRILLIANT BENZO BLUE 6BA-CF             |
| *AZOIC BLACK COMPOSITION 4       | C.I. AZOIC BLACK 4                      |
| *AZOIC BLUE COMPOSITION 2        | C.I. AZOIC BLUE 2                       |
| *AZOIC BLUE COMPOSITION 3        | C.I. AZOIC BLUE 3                       |
| *AZOIC COUPLING COMPONENT 3      | C.I. AZOIC COUPLING COMPONENT 3         |
| *AZOIC DIAZO COMPONENT 48        | C.I. DIRECT BLACK 114                   |
| AZONENE FAST BLUE B SALT         | C.I. DIRECT BLACK 91                    |
| AZOTOL DA                        | C.I. DIRECT BLACK 91, TRISODIUM SALT    |
| BELAMINE AZURINE G               | *#C.I. DIRECT BLACK 118                 |
| BELAMINE SKY BLUE A              | *C.I. DIRECT BLACK 167                  |
| BELAMINE SKY BLUE F              | *C.I. DIRECT BLUE 1                     |
| BENZANIL AZURINE G               | C.I. DIRECT BLUE 1, TETRASODIUM SALT    |
| BENZANIL BLUE RW                 | *#C.I. DIRECT BLUE 100                  |
| BENZANIL FAST COPPER BLACK R     | *C.I. DIRECT BLUE 15                    |
| BENZANIL FAST COPPER NAVY BLUE R | C.I. DIRECT BLUE 15, TETRASODIUM SALT   |
| BENZANIL SKY BLUE                | *C.I. DIRECT BLUE 22                    |
| BENZANIL SKY BLUE FF             | *#C.I. DIRECT BLUE 151                  |
| BENZANIL SUPRA BLUE FBGL         | C.I. DIRECT BLUE 151, DISODIUM SALT     |
| BENZANIL SUPRA BLUE NLG          | *C.I. DIRECT BLUE 156                   |
| BENZANIL SUPRA BLUE 2GN          | *C.I. DIRECT BLUE 160                   |
| BENZANIL SUPRA BLUE 2GNP         | *#C.I. DIRECT BLUE 191                  |
| BENZANIL SUPRA BLUE 2RL          | *#C.I. DIRECT BLUE 218                  |
| BENZANOL AZURINE G               | *C.I. DIRECT BLUE 269                   |
| BENZANOL BLUE RW                 | C.I. DIRECT BLUE 22                     |
| BENZO AZURINE G                  | C.I. DIRECT BLUE 22, DISODIUM SALT      |
| BENZO AZURINE GA-CF              | *#C.I. DIRECT BLUE 224                  |
| BENZO AZURINE GS                 | C.I. DIRECT BLUE 225                    |
| #BENZO BLUE RWA                  | C.I. DIRECT BLUE 229                    |
| BENZO BLUE RWS                   | *#C.I. DIRECT BLUE 267                  |
| BENZO BRILLIANT BLUE 6BS         | C.I. DIRECT BLUE 269                    |
| #BENZO COPPER BLUE CVBS          | *#C.I. DIRECT BLUE 76                   |
| BENZO CUPROL BLACK RLW           | *#C.I. DIRECT BLUE 76, TETRASODIUM SALT |
| *BENZOCUPROL NAVY BLUE RLW 200   | *#C.I. DIRECT BLUE 77                   |
| #BENZO CUPROL NAVY BLUE RLW      | *C.I. DIRECT BLUE 8                     |
| BENZO FAST COPPER BLACK RLW      | C.I. DIRECT BLUE 8, DISODIUM SALT       |
| #BENZO FAST COPPER NAVY BLUE RLW | *#C.I. DIRECT BLUE 80                   |
| BENZO SKY BLUE                   | *#C.I. DIRECT BLUE 90                   |
| BENZO SKY BLUE A-CF              | *#C.I. DIRECT BLUE 98                   |
| BENZO SKY BLUE S                 | *#C.I. DIRECT BROWN 200                 |
| BENZOAZURIN                      | *C.I. DIRECT VIOLET 93                  |
| BLUE BASE NB                     | *C.I. DIRECT YELLOW 68                  |
| *BLUE M LIQUID                   | *#C.I. 23155                            |
| *#BOND BLUE B                    | *C.I. 24140                             |
| #BOND BLUE WD                    | *#C.I. 24175                            |
| BRASILAMINA BLUE G               | *C.I. 24280                             |
| BRASILAMINA BLUE RW              | C.I. 24315                              |

\*In current production, 1981.

#Metallized dye

o-DIANISIDINE-BASED DYES  
(continued)

\*C.I. 24400  
\*#C.I. 24401  
\*C.I. 24410  
\*#C.I. 24411  
\*C.I. 30400  
\*C.I. 37235  
\*C.I. 37575  
CALCODUR BLUE 6GFL  
CALCODUR RESIN FAST BLUE 6G  
CALCOMINE AZURINE BT  
CALCOMINE SKY BLUE FF  
\*CALCOMINE SKY BLUE 6BX CONC.  
\*#CARTA BLUE RUL  
\*#CARTA BLUE VP  
\*#CARTA GREY 3LBN  
\*CARTA SKY BLUE 2F  
CARTASOL BLUE VP  
\*CARTASOL BLUE 2GF  
\*#CARTASOL BLUE 3RF  
\*#CARTASOL BLUE 4GF  
CHICAGO BLUE RW  
CHICAGO BLUE 6B  
CHICAGO SKY BLUE 6B  
CHLORAMINE BLUE BT  
CHLORAMINE CHROME BLUE 2GLN  
CHLORAMINE SKY BLUE A  
CHLORAMINE SKY BLUE FF  
CHLORAMINE SKY BLUE 4B  
#CHLORANTINE FAST BLUE A2GLL  
#CHLORANTINE FAST BLUE BLL  
#CHLORANTINE FAST BLUE B5GL  
#CHLORANTINE FAST BLUE 2RLL  
#CHLORANTINE FAST BLUE 7GL  
#CHLORANTINE FAST BLUE 7GLL  
CHLORAZOL AZURINE  
CHLORAZOL AZURINE G  
CHLORAZOL BLUE RW  
CHLORAZOL COPPER BLUE B  
CHLORAZOL SKY BLUE FF  
CHROME LEATHER BLUE BT  
CHROME LEATHER PURE BLUE  
CHROME LEATHER SKY BLUE GS  
COPPER BLUE G  
COTTON BLUE CVB  
CRESOTINE BLUE 6B  
CRESOTINE PURE BLUE  
CROMOCORIUM BLUE R  
CUPRODIAZOL LIGHT NAVY RL  
CUPRODIAZOL LIGHT BLACK RL  
CUPRODIAZOL LIGHT NAVY RL  
CUPRODIRECT BLUE CVS  
\*CUPROFIX BLACK C-RL  
CUPROFIX BLACK CRL  
CUPROFIX BLUE FGL  
CUPROFIX BLUE LUL  
CUPROFIX BLUE 2GL  
CUPROFIX DARK BROWN 3LB  
CUPROFIX GREY 3LBN  
CUPROFIX LIGHT BLUE 2RL  
CUPROFIX NAVY BLUE CGBL  
\*CUPROFIX NAVY C-GRL  
CUPROFIX PRINTING BLUE FGL  
CUPROFIX PRINTING BLUE 2GL  
CUPROFIX PRINTING GREY 3LBN  
CUPROFIX YELLOW CZRL  
\*CUPROPHENYL BLACK BWL  
CUPROPHENYL BLACK RL  
\*CUPROPHENYL BLACK RL 200%  
\*CUPROPHENYL NAVY BLUE BL  
\*CUPROPHENYL NAVY BLUE RL  
CUPROPHENYL NAVY BLUE RL 200%  
\*CUPROPHENYL VIOLET 3RL  
CUPROPHENYL YELLOW RL  
\*CUPROPHENYL YELLOW RL EXTRA  
CUTAMIN BLUE CR  
CYCLOFAST BOND BLUE B  
CYCLOFAST BOND BLUE B LIQ.  
DERMA BLUE R  
DERMA FAST BLUE GREY W-3BL  
DERMAFIX YELLOW 2F  
DIACOTTON AZURINE G  
DIACOTTON BRILLIANT BLUE RW  
DIACOTTON COPPER BLUE BB  
DIACOTTON SKY BLUE 5B  
DIACOTTON SKY BLUE 6B  
DIAMINE AZURINE G  
DIAMINE BLUE RWS  
DIAMINE BLUE 6B  
DIAMINE SKY BLUE  
DIAMINERAL BLUE CVB  
DIANIL AZURINE G  
DIAPHTAMINE AZURINE G  
DIAPHTAMINE BLUE BS  
DIAPHTAMINE BLUE RW  
DIAPHTAMINE COPPER BLUE FO  
DIAPHTAMINE LIGHT BLUE FBGL

\*In current production, 1981.

#Metallized dye

o-DIANISIDINE-BASED DYES  
(continued)

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| DIAPHTAMINE PURE BLUE             | *#DIRECT BLUE 191 (S)               |
| DIATO BLUE BASE B                 | *#DIRECT BLUE 218                   |
| DIAZAMINE BLUE B                  | *#DIRECT BLUE 218/224 (S)           |
| DIAZINE SKY BLUE FF               | DIRECT BLUE 22                      |
| DIAZO FAST BLUE MP                | *#DIRECT BLUE 224                   |
| *#DIAZO FAST BLUE MP, MP CONC.    | DIRECT BLUE 269                     |
| DIAZOL BLUE J                     | DIRECT BLUE 6B                      |
| DIAZOL BLUE RW                    | DIRECT BLUE 6BS                     |
| #DIAZOL BLUE 3JLNA                | *#DIRECT BLUE 76                    |
| DIAZOL LIGHT BLUE 2RL             | DIRECT BLUE 8                       |
| DIAZOL LIGHT BLUE 3JLN            | DIRECT BLUE 80                      |
| DIAZOL LIGHT BLUE 7JL             | *#DIRECT BLUE 90                    |
| #DIAZOL LIGHT BLUE 7JL U.C.       | DIRECT BLUE 98                      |
| DIAZOL LIGHT BLUE 7JL ULTRA CONC. | DIRECT BOND BLUE BP                 |
| DIAZOL LIGHT BLUE 7JLA            | DIRECT BRIGHT BLUE                  |
| DIAZOL PURE BLUE 4B               | DIRECT BRILLIANT BLUE FF            |
| DIAZOL PURE BLUE 6B               | DIRECT BRILLIANT BLUE MFF           |
| DIAZOPHENYL BLUE B                | DIRECT BRILLIANT SKY BLUE 6B        |
| DIPHENYL BLUE BT                  | *DIRECT BRILLIANT SKY BLUE 6B EX.   |
| DIPHENYL BLUE G                   | CONC.                               |
| DIPHENYL BRILLIANT BLUE           | *#DIRECT BROWN 200                  |
| DIPHENYL BRILLIANT BLUE FF        | DIRECT COPPER BLUE A                |
| *DIPHENYL BRILLIANT BLUE FF SUPRA | DIRECT COPPER BLUE B                |
| DIPHENYL SKY BLUE 6B              | #DIRECT FAST NAVY BRN               |
| *DIRECT AZURINE G                 | DIRECT LIGHTFAST BLUE KU            |
| *DIRECT AZURINE G CONC.           | DIRECT PURE BLUE                    |
| DIRECT AZURINE MG                 | DIRECT PURE BLUE FF                 |
| DIRECT BLACK 91                   | DIRECT PURE BLUE M                  |
| DIRECT BLACK 114                  | DIRECT PURE BLUE 6B                 |
| *#DIRECT BLACK 118                | DIRECT PURE SKY BLUE                |
| DIRECT BLUE BR                    | DIRECT SKY BLUE                     |
| DIRECT BLUE BT                    | DIRECT SKY BLUE A                   |
| DIRECT BLUE CV                    | *DIRECT SKY BLUE A SUPRA CONC. 125% |
| DIRECT BLUE FF                    | DIRECT SKY BLUE FF                  |
| DIRECT BLUE FFN                   | *DIRECT SKY BLUE FF EX. 200%        |
| DIRECT BLUE G                     | *DIRECT SKY BLUE FF EX. 300%        |
| DIRECT BLUE HH                    | DIRECT SKY BLUE GREEN SHADE         |
| DIRECT BLUE MRW                   | DIRECT SKY BLUE GS                  |
| *#DIRECT BLUE R 100%, R. CONC.    | DIRECT SKY BLUE 5B                  |
| DIRECT BLUE RW                    | DIRECT SKY BLUE 6B                  |
| *DIRECT BLUE RW CONC. 200 %       | *DIRECT SKY BLUE 6B CONC.           |
| DIRECT BLUE RWN                   | *DIRECT SKY BLUE 6B EX. 200%        |
| DIRECT BLUE 1                     | *DIRECT SKY BLUE 6B EX. CONC. 300%  |
| DIRECT BLUE 10G                   | DIRECT SKY BLUE 6BS                 |
| *#DIRECT BLUE 100                 | DIRECT VIOLET 93                    |
| DIRECT BLUE 15                    | DIRECT YELLOW 68                    |
| DIRECT BLUE 156                   | #DURAZOL BLUE 2GN                   |
| DIRECT BLUE 160                   | DURAZOL BLUE 2GNP                   |

\*In current production, 1981.

#Metallized dye

o-DIANISIDINE-BASED DYES  
(continued)

#DURAZOL BLUE 5G  
DUROFAST BLUE S  
DUROFAST BLUE UGLL  
DUROFAST BLUE 16BLL  
DUROFAST BLUE 2RLL  
DUROFAST BLUE 3GAV  
DUROFAST BLUE 3GLL  
DUROFAST BLUE 7RLL  
#ELCOFAST BLUE 2RL  
#ELCOFAST BOND BLUE  
ELCOFAST DIAZO BLUE B CONC.  
ELCOMINE BOND BLUE S  
ENIANIL BLUE CVB  
ENIANIL BLUE CVBO  
ENIANIL BLUE RW  
ENIANIL BRILLIANT BLUE FF  
ENIANIL PURE BLUE AN  
FAST BLUE B BASE  
FAST BLUE B BASE DISP.  
\*FAST BLUE B SALT  
\*FAST BLUE B-ND BASE  
FAST BLUE B-ND SALT  
FAST BLUE B-48  
FAST BLUE D-ND SALT  
#FASTUSOL BLUE LFGL  
#FASTUSOL BLUE LR  
#FASTUSOL BLUE LRRU  
#FASTUSOL BLUE L6G  
#FASTUSOL BLUE 9GLP  
#FASTUSOL BLUE 9GLP LIQ.  
#FASTUSOL BRILLIANT BLUE L2GU  
#FASTUSOL BRILLIANT BLUE L8GU  
#FENALUZ BLUE FG  
#FENALUZ BLUE FRL  
#FENALUZ BLUE 2RL  
#FENALUZ BLUE 6GL  
#FENALUZ BLUE 9GLP  
#FENALUZ BRILLIANT BLUE 8G  
FENAMIN BLUE GR  
FENAMIN BLUE RW  
FENAMIN SKY BLUE  
FENAMIN SKY BLUE 3F  
FENOGEN BLUE GN  
FIXAMINE BLUE RLL  
FIXANOL SKY BLUE FF  
FORMO DIRECT SKY BLUE 5B  
HILTONAPHTHOL AS-BR  
HILTONIL FAST BLUE B BASE  
HISPALUZ BLUE BGL  
HISPAMIN BLUE G  
HISPAMIN BLUE RW  
HISPAMIN SKY BLUE 3B  
HISPAMIN SKY BLUE 6B  
HOSTAGEN BLUE G  
HOSTAGEN BLUE GB  
INDOXINE DRB  
INK BLUE 6B  
\*#INTRABOND LIQUID BLUE 8GLL  
INTRABOND LIQUID SKY BLUE M  
\*#INTRALITE BLUE NBLL  
\*#INTRALITE BLUE 2RLL  
\*#INTRALITE BLUE 8GLL  
\*#INTRALITE BRILLIANT BLUE L  
INTRALITE FAST BLUE BLL  
#INTRALITE FAST BLUE 2RLL  
#INTRALITE FAST BLUE 8GLL  
INTRALITE FAST BLUE 9GLL  
\*INTRAMET BLACK GM  
\*INTRAMET NAVY BLUE RL  
INTRAMET NAVY BLUE RLL  
\*INTRAMET NAVY BLUE RLL CONC. 200%  
\*INTRAMET YELLOW RL  
JAPANOL BRILLIANT BLUE RWL  
JAPANOL BRILLIANT BLUE 6BKX  
KAMBAMINE BLUE B  
KAYAKU DIRECT BRILLIANT BLUE RW  
KAYAKU DIRECT SKY BLUE 5B  
KAYAKU DIRECT SKY BLUE 6B  
KAYARUS SUPRA BLUE FGL  
KAYARUS SUPRA GREY L3B  
KCA DIRECT AZURINE G  
LUMICREASE DARK BROWN 3LB  
LUMICREASE BLUE 2RL  
LUMICREASE BLUE 4GL  
LUMICREASE DARK BROWN 3BL  
\*#LUMICREASE DARK BROWN 3LB  
\*#LUMICREASE GREY 3LBN  
LUMICREASE SKY BLUE 4GL  
LUMICREASE SKY BLUE 6GUL  
#LURANTIN FAST BLUE LR  
#LURANTIN FAST BLUE LRRU  
#LURANTIN FAST BLUE L6G  
METADIAZOL BLUE CV  
MITSUI BLUE B BASE  
MITSUI DIRECT BLUE RW  
MITSUI DIRECT BRILLIANT BLUE 6B

\*In current production, 1981.

#Metallized dye

o-DIANISIDINE-BASED DYES  
(continued)

MITSUI DIRECT SKY BLUE 5B  
NAPHTAMINE BLUE BG  
NAPHTAMINE BLUE RW  
NAPHTAMINE BLUE 10G  
NAPHTAMINE SKY BLUE DD  
NAPHTANILIDE BR  
\*NAPHTHOL AS-BR  
NAPHTHOL AS-BR SOLN.  
NAPHTHOL AS-BR 20% SOLN.  
\*NEUTRAZOIC BLACK FOR PDR.  
\*NEUTRAZOIC BLACK GF 167% PDR.  
\*NEUTRAZOIC BLACK JN PDR.  
\*NEUTRAZOIC BLACK 2B PDR.  
\*NEUTRAZOIC BLUE AS PDR.  
\*NEUTRAZOIC BLUE D  
NEUTRAZOIC BLUE D PDR.  
\*NEUTRAZOIC BLUE GB PDR.  
\*NEUTRAZOIC BLUE GN PDR.  
\*NEUTRAZOIC BROWN BR PDR.  
NIAGARA BLUE G  
NIAGARA BLUE R  
NIAGARA BLUE RW  
NIAGARA BLUE 4B  
NIAGARA SKY BLUE  
NIAGARA SKY BLUE 6B  
NIPPON DIRECT SKY BLUE  
NIPPON SKY BLUE  
NITTO DIRECT SKY BLUE 5B  
NYALITE BLUE RL  
NYALITE FAST BLUE RL  
NYANZA BLUE RW  
NYANZA SKY BLUE 6B  
NYLCONTRAST BROWN BL  
\*PADAZOIC BLACK GLL PDR.  
\*PADAZOIC BLACK RLL PDR.  
\*PADAZOIC BLACK 2G 150% PDR.  
\*PADAZOIC BLUE GP PDR.  
\*PADAZOIC BRILLIANT INDIGO 3B PDR.  
\*PADAZOIC DENIM INDIGO BLUE G PDR.  
\*PADAZOIC DENIM INDIGO PDR.  
\*PADAZOIC FARMER BROWN PDR.  
\*PADAZOIC NAVY BLUE WS EX PDR.  
\*PAPER BLACK G LIQUID  
\*#PAPER BLUE 3CAP  
PAPER BLUE 6B  
PAPER FAST BLUE FBGL  
PAPER FAST BLUE 3G  
PAPER SKY BLUE S  
PAPER SKY BLUE S LIQUID 35  
PARAMINE SKY BLUE FF  
\*#PERGASOL BLUE 2RL  
#PERGASOL BLUE 4RAL  
#PERGASOL BLUE 8GLP  
\*#PERGASOL BLUE 8GLP LIQ.  
\*PERGASOL BLUE GA CONC.  
PHARMASOL BLUE G  
PHARMASOL BLUE GB  
PHARMOL BLUE G  
PHARMOL BLUE GB  
PHENAMINE AZURINE G  
PHENAMINE BLUE RW  
PHENAMINE BRILLIANT BLUE 6B  
PHENAMINE SKY BLUE A  
PHENO BRILLIANT BLUE BT  
PHENO SKY BLUE 6BX  
POLOGEN BLACK BGN  
PONTACYL SKY BLUE 4BX  
PONTAMINE BLUE AB  
\*PONTAMINE BLUE AB LIQ.  
PONTAMINE BLUE AX  
PONTAMINE BLUE RW  
\*PONTAMINE BLUE WE LIQ.  
#PONTAMINE BOND BLUE B  
\*#PONTAMINE BOND BLUE B LIQ.  
PONTAMINE BOND BLUE 3-G  
PONTAMINE COPPER BLUE RRX  
#PONTAMINE FAST BLUE 2RL  
PONTAMINE FAST BLUE 6GL  
#PONTAMINE FAST BLUE 7GLN  
PONTAMINE SKY BLUE  
PONTAMINE SKY BLUE M  
\*PONTAMINE SKY BLUE M LIQ.  
\*PONTAMINE SKY BLUE NW LIQ.  
PONTAMINE SKY BLUE 5 BX  
PONTAMINE SKY BLUE 5BX  
PONTAMINE SKY BLUE 6BX  
PONTAMINE SKY BLUE 6BX GREENISH  
POTAMINE BLUE AB LIQ.  
PRINTING BLACK 2G  
PRINTING BLUE D  
PRINTING BLUE G  
PRINTING BLUE G SOLN.  
PRINTING BLUE GN  
PURE BLUE  
PURE SKY BLUE 6B  
PYRAZOL BLUE A

\*In current production, 1981.

#Metallized dye

o-DIANISIDINE-BASED DYES  
(continued)

|                                  |                                      |
|----------------------------------|--------------------------------------|
| PYRAZOL BLUE BT                  | #SIRIUS SUPRA BLUE 2RL               |
| PYRAZOL BLUE FO                  | SIRIUS SUPRA BLUE 4G                 |
| PYRAZOL BLUE 2F                  | #SIRIUS SUPRA BLUE 5G                |
| PYRAZOL FAST BLUE BGUL           | SKY BLUE FF                          |
| *#PYRAZOL FAST BLUE FGL          | SKY BLUE 4B                          |
| PYRAZOL FAST BLUE GUL            | SKY BLUE 5B                          |
| *#PYRAZOL FAST BLUE LUL          | SKY BLUE 6B                          |
| *#PYRAZOL FAST BLUE RUL          | #SOLANTINE BLUE GLFV                 |
| *#PYRAZOL FAST BLUE 2GLN         | #SOLANTINE BLUE SFRL                 |
| PYRAZOL FAST BLUE 4GUL           | #SOLANTINE BLUE 10GL                 |
| PYRAZOL FAST BRILLIAN BLUE VP    | #SOLANTINE BLUE 6GKS                 |
| PYRAZOL FAST BRILLIANT BLUE VP   | #SOLANTINE BLUE 8GL                  |
| PYRAZOL FAST SKY BLUE 7GLN       | SOLAR BLUE FGL                       |
| *#PYRAZOL FAST SKY BLUE 7GUL     | SOLAR BLUE 2GLN                      |
| *PYRAZOL SKY BLUE FF             | SOLAR BLUE 2RL                       |
| PYRAZOLINE BLUE NP               | SOLAR BLUE 4GL                       |
| PYRAZOLINE BLUE 2RCF             | SOLAR DARK BROWN 3LB                 |
| PYRAZOLINE BLUE 2RLCF            | SOLAR GREY 3LBN                      |
| RAPIDOGEN BLACK 3G               | SOLEX BLUE FBGL                      |
| RAPIDOGEN BLUE D                 | SOLEX BLUE RL                        |
| RAPIDOGEN BLUE GN                | SOLIUS LIGHT BLUE FBGL               |
| RAPIDOGEN BLUE GN SOLN.          | SOLIUS LIGHT BLUE 7GL                |
| RESIN FAST BLUE RUL              | #SOLOPHENYL BLUE A4RL                |
| RESIN FAST BLUE UGLL             | *#SOLOPHENYL BLUE RBL                |
| *RESIN FAST BLUE 16BLL           | *#SOLOPHENYL BLUE 2RL                |
| RESIN FAST BLUE 2RLL             | #SOLOPHENYL BLUE 3GL                 |
| RESIN FAST BLUE 3GAB             | #SOLOPHENYL BLUE 6GL                 |
| *#RESIN FAST BLUE 3GAV           | *#SOLOPHENYL BLUE 8GL                |
| RESIN FAST BLUE 3GL              | *#SOLOPHENYL BLUE 8GLP LIQ.          |
| *#RESIN FAST BLUE 3GLL           | *SPECIAL BLACK G LIQ.                |
| *#RESIN FAST BLUE 7RLL           | *SPECIAL BLUE AB LIQ.                |
| *#RESIN FAST BLUE 8GLN           | *SPECIAL SKY BLUE M                  |
| *#RESIN FAST NAVY WRA            | STABLE BLUE B BASE                   |
| RESOFIX BLUE 2GL                 | SUMILIGHT SUPRA BLUE FBGL            |
| RHODAMINE 12G EXTRA              | SUMILIGHT SUPRA BLUE FGL             |
| RHODAMINE 12GF                   | *#SUPERLITEFAST BLUE RL              |
| ROMAGENE BLUE GS DBL. SOLN.      | *#SUPERLITEFAST BLUE GL              |
| SANATOL BR                       | *#SUPERLITEFAST BLUE RLE             |
| SATURN BLUE LAG                  | SUPERLITEFAST BLUE RLF               |
| SATURN BLUE LFBG                 | *#SUPERLITEFAST BLUE WB              |
| SHIKISO DIRECT BRILLIANT BLUE RW | *#SUPERLITEFAST BLUE 3GLST           |
| SHIKISO DIRECT SKY BLUE 5B       | *#SUPERLITEFAST BLUE 8GLN            |
| SHIKISO DIRECT SKY BLUE 6B       | *#SUPERLITEFAST BLUE 8GUL            |
| SIRIUS BLUE FGG200               | *#SUPERLITEFAST BRILLIANT BLUE 16BLL |
| SIRIUS BLUE F4GA                 | #SUPERLITEFAST BRILLIANT BLUE 3GLST  |
| *#SIRIUS SUPRA BLUE BRL          | #SUPERLITEFAST GL                    |
| SIRIUS SUPRA BLUE FBGL           | *#SUPERLITEFAST GREY LVL             |
| SIRIUS SUPRABLUE GRLL            | *#SUPERLITEFAST RUBINE WLKS          |

\*In current production, 1981.

#Metallized dye

o-DIANISIDINE-BASED DYES  
(continued)

TARDIREKT BLUE 6B  
TERTRODIRECT BLUE AG  
TERTRODIRECT BLUE CVB  
TERTRODIRECT BLUE F  
TERTRODIRECT BLUE FF  
TERTRODIRECT BLUE RW  
TERTRODIRECT FAST YELLOW 3RS  
TETRAMINE LIGHT BLUE FPB  
TRIANINE LIGHT YELLOW RR  
TRIMAAL BLUE CVBN  
TRIMAL BLUE CVBN  
TRISULFON BLUE FO  
TRISULFON BLUE RW  
VEGENTINE BLUE CSW  
VISCO MILLING NAVY R  
VONDACEL BLUE FF  
VONDACEL BLUE HH  
VONDACEL DARK BLUE CVB

APPENDIX B

SOURCES OF ADDITIONAL INFORMATION

1. NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

Division of Standards Development and Technology Transfer, Technical Information Branch

This office responds to inquiries from individuals and organizations on occupational safety and health issues.

4676 Columbia Parkway  
Cincinnati, Ohio 45226

NIOSH Regional Offices

Region I - Boston, Massachusetts:  
Connecticut, Maine, Massachusetts  
New Hampshire, Rhode Island, Vermont

Regional Consultant, NIOSH  
DHHS, Region I  
Government Center (JFK Fed. Bldg.)  
Boston, Massachusetts 02203  
Tel: 617/223-6668  
FTS: 223-6668

Region II - New York, New York:  
New Jersey, New York, Puerto Rico,  
Virgin Islands

Regional Consultant, NIOSH  
DHHS, Region II - Fed. Building  
26 Federal Plaza  
New York, New York 10007  
Tel: 212/264-2485  
FTS: 264-2485

Region III - Philadelphia, Pennsylvania:  
Delaware, District of Columbia, Maryland  
Pennsylvania, Virginia, West Virginia

Regional Consultant, NIOSH  
DHHS, Region III  
P. O. Box 13716  
Philadelphia, Pennsylvania 19101  
Tel: 215/596-6716  
FTS: 596-6716

Region IV - Atlanta, Georgia:  
Alabama, Florida, Georgia, Kentucky,  
Mississippi, North Carolina,  
South Carolina, Tennessee

Regional Consultant, NIOSH  
DHHS, Region IV, Div. of  
Preventive Health Services  
101 Marietta Tower, Suite 1007  
Atlanta, Georgia 30303  
Tel: 404/221-2396  
FTS: 242-2396



Region V - Chicago, Illinois:  
Illinois, Indiana, Michigan,  
Minnesota, Ohio, Wisconsin

Regional Consultant, NIOSH  
DHHS, Region V  
300 South Wacker Drive, 33rd Floor  
Chicago, Illinois 60606  
Tel: 312/886-3881  
FTS: 886-3881

Region VI - Dallas, Texas:  
Arkansas, Louisiana, New Mexico,  
Oklahoma, Texas

Regional Consultant, NIOSH  
DHHS, Region VI  
1200 Main Tower Bldg., Rm. 1700-A  
Dallas, Texas 75202  
Tel: 214/767-3916  
FTS: 729-3916

Region VII - Kansas City, Missouri:  
Iowa, Kansas, Missouri, Nebraska

Regional Consultant, NIOSH  
DHHS, Region VII  
601 East 12th Street  
Kansas City, Missouri 64106  
Tel: 816/374-5332  
FTS: 758-5332

Region VIII - Denver, Colorado:  
Colorado, Montana, Utah, Wyoming,  
North Dakota, South Dakota

Regional Consultant, NIOSH  
DHHS/PHS/PREVENTION-Region VIII  
Denver, Colorado 80294  
Tel: 303/837-3979  
FTS: 327-3979

Region IX - San Francisco, California:  
Arizona, California, Hawaii, Nevada,  
Guam

Regional Consultant, NIOSH  
DHHS, Region IX  
50 United Nations Plaza  
San Francisco, California 94102  
Tel: 415/556-3781  
FTS: 556-3781

Region X - Seattle, Washington:  
Alaska, Idaho, Oregon, Washington

Regional Consultant, NIOSH  
DHHS, Region X  
1321 Second Avenue (Arcade Bldg.)  
Seattle, Washington 98101  
Tel: 206/442-0530  
FTS: 399-0530

2. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, U.S. DEPARTMENT OF LABOR

Refer to the white pages of the telephone directory under "U.S. Department of Labor, Occupational Safety and Health Administration."

3. DYES ENVIRONMENTAL AND TOXICOLOGY ORGANIZATION

This is a trade organization of dye manufacturers involved with health effects of commercial dyes.

DETO  
1075 Central Park Avenue  
Scarsdale, New York 10583

4. AMERICAN ASSOCIATION OF TEXTILE COLORISTS AND CHEMISTS

AATCC  
P.O. Box 12215  
Research Triangle Park, North Carolina 27709

In addition to publishing a periodical, this organization also publishes the Colour Index, a specialized multi-volume reference work that may be useful in identifying chemical dye components. This reference is most often found in reference collections of research libraries. Persons seeking to identify dye chemicals who do not have access to the Index can obtain assistance from NIOSH at the address given above for its Technical Information Branch.

5. AMALGAMATED CLOTHING AND TEXTILE WORKERS UNION

ACTWU  
Occupational Safety and Health Department  
15 Union Square  
New York, New York 10003

6. FOOD AND BEVERAGES TRADES COUNCIL, AFL-CIO (leather dyeing)

Food and Beverages Trades Council, AFL-CIO  
Health and Safety Program  
815 16th Street, N.W.  
Washington, D.C. 20006

7. UNITED PAPERWORKERS INTERNATIONAL UNION

UPIU  
Department of Health and Safety  
P.O. Box 1475  
Nashville, Tennessee 37202

8. OIL, CHEMICAL, AND ATOMIC WORKERS INTERNATIONAL UNION

OCAW  
Health and Safety Department  
P.O. Box 2812  
Denver, Colorado 80201

9. INTERNATIONAL CHEMICAL WORKERS UNION

ICWU  
Health and Safety Department  
1655 West Market Street  
Akron, Ohio 44313

10. CENTER FOR OCCUPATIONAL HAZARDS (Art Hazards Project)

Center for Occupational Hazards  
5 Beekman Street  
New York, New York 10038