PORTER PAINTS

TECHNICAL BULLETIN #7

SAFETY & PIPING COLOR CODES

OSHA SAFETY COLORS

GENERAL INFORMATION: *The Occupational Safety and Health Act (OSHA) requires that all industries color-code safety equipment locations, physical hazards and protective equipment. Safety color codes were established by the American National Standards Institute (ANSI) and adopted by OSHA for use in hazardous areas. Porter Coatings' Safety Colors conform to OSHA and ANSI guidelines. OSHA does not specify the exact shade of color, but the color-coding should be consistent throughout a facility. For complete information, please consult the reference documents** noted at the end of this bulletin.*

RED:

THE BASIC COLOR FOR THE IDENTIFICATION OF:

-Fire Protection Equipment and Apparatus. Used for: fire alarm boxes, fire blanket boxes, fire buckets or pails, fire exit signs, fire extinguishers, fire hose locations, fire hydrants, fire pumps, fire sirens, post indicator valves for sprinkler system and sprinkler piping.

-**Danger.** Used for: safety cans or other portable containers of flammable liquids having a flashpoint at or below 80°F, table containers of flammable liquids (with additional clearly visible identification of the contents either in the form of a yellow band around the can or the name of the contents conspicuously stenciled or painted on the can in yellow and danger signs.

-**Stop.** Used for: Emergency stop bars on hazardous machines and stop buttons or electrical switches used for emergency stopping of machinery.

PORTER COATINGS SAFETY RED:

2772 PORTER GUARD™ Fast Dry Gloss Enamel Safety Red
2912 PORTER GUARD™ DTM Acrylic Gloss Enamel Safety Red
PC4072 PORTERGLAZE™ 4000 Gloss Epoxy Safety Red

ORANGE:

THE BASIC COLOR FOR DESIGNATING DANGEROUS PARTS OF MACHINES OR ENERGIZED EQUIPMENT WHICH MAY CUT, CRUSH, SHOCK, OR OTHERWISE INJURE. Used to emphasize such hazards when enclosure doors are open or when gear belt or other guards around moving equipment are open or removed, exposing unguarded hazards.

PORTER COATINGS SAFETY ORANGE: Tint* from:

2754 PORTER GUARD™ Fast Dry Gloss Enamel Safety Yellow
2913 PORTER GUARD™ DTM Acrylic Gloss Enamel Safety Yellow
PC4074 PORTERGLAZE™ 4000 Epoxy Gloss Yellow Base
PC9074 PORTERTHANE™ 9000 Urethane Gloss Yellow Base

YELLOW:

THE BASIC COLOR FOR DESIGNATING CAUTION. Used for: marking physical hazards such as striking against, stumbling, falling, tripping and "caught in between." Solid yellow, yellow and black stripes, yellow and black checkers (or yellow with suitable contrasting background) should be used interchangeably, using the combination which will attract the most attention in the particular environment.

PORTER COATINGS SAFETY YELLOW:

2754 PORTER GUARD™ Fast Dry Enamel Safety Yellow
2913 PORTER GUARD™ DTM Acrylic Gloss Enamel Safety Yellow
PC4074 PORTERGLAZE™ 4000 Epoxy Gloss Yellow Base
PC9074 PORTERTHANE™ 9000 Urethane Gloss Yellow Base

GREEN:

THE BASIC COLOR FOR DESIGNATING "SAFETY" AND THE LOCATION OF FIRST AID EQUIPMENT (OTHER THAN FIREFIGHTING EQUIPMENT)

PORTER COATINGS SAFETY GREEN: Tint* from:

2744 PORTER GUARD™ Fast Dry Enamel Ultra Deep Base
2904 PORTER GUARD™ DTM Acrylic Gloss Enamel Ultra Deep Base
PC4044 PORTERGLAZE™ 4000 Epoxy Gloss Neutral Base
PC9044 PORTERTHANE™ 9000 Urethane Gloss Neutral Base

BLUE:

THE BASIC COLOR FOR DESIGNATING "CAUTION", LIMITED TO WARNING AGAINST THE STARTING, THE USE OF, OR THE MOVEMENT OF EQUIPMENT UNDER REPAIR OR BEING WORKED ON.

PORTER COATINGS SAFETY BLUE: Tint* from:

2744 PORTER GUARD™ Fast Dry Enamel Ultra Deep Base
2904 PORTER GUARD™ DTM Acrylic Gloss Enamel Ultra Deep Base
PC4044 PORTERGLAZE™ 4000 Epoxy Gloss Neutral Base
PC9044 PORTERTHANE™ 9000 Urethane Gloss Neutral Base

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PURPLE:

THE BASIC COLOR FOR DESIGNATING RADIATION HAZARDS (X-RAY, ALPHA, BETA, GAMMA, NEUTRON, PROTON, DEUTERON, AND MESON TYPES). Used in combination with purple for markers such as tags, labels, signs and floor markers.

PORTER COATINGS SAFETY PURPLE: Tint* from:
2744 PORTER GUARD™ Fast Dry Enamel Ultra Deep Base
2904 PORTER GUARD™ DTM Acrylic Gloss Enamel Ultra Deep Base
PC4044 PORTERGLAZE™ 4000 Epoxy Gloss Neutral Base
PC9074 PORTERTHANE™ 9000 Urethane Gloss Neutral Base

BLACK, WHITE, OR COMBINATIONS OF BLACK AND WHITE:

THE BASIC COLORS FOR DESIGNATING TRAFFIC AND HOUSEKEEPING MARKINGS. Solid white, solid black, single color striping, alternate stripes of black and white, or black and white checkers should be used in accordance with local conditions.

PORTER COATINGS SAFETY BLACK:
2728 PORTER GUARD™ Fast Dry Enamel Black
2928 PORTER GUARD™ DTM Acrylic Gloss Black

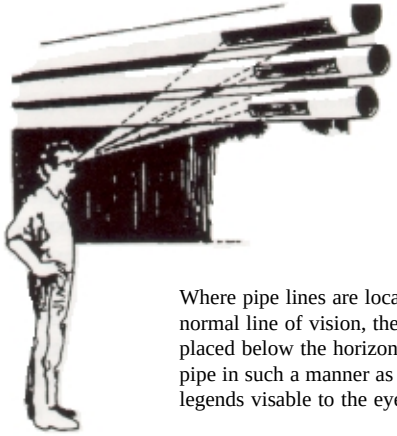
***NOTE:** See the Porter Coatings **Industrial Color Selection Guide** (Order #5860/E) for safety color tint formulas.

IDENTIFICATION OF CONTENTS OF PIPING SYSTEMS IN INDUSTRIAL PLANTS

GENERAL INFORMATION: *The American National Standard "Scheme for the Identification of Piping Systems" provides guidelines for the use of color on piping in plant facilities. Please consult this publication** for complete details.* Some general guidelines are:

- Pipes are defined as conduits for the transport of gases, liquids, semi-liquids or plastics.
- This scheme does not cover pipes buried in the ground, or electrical conduits.
- **The Standard considers legend (written description of contents) to be primary.** Color coding is considered secondary.
- Positive identification of the content of a piping system shall be by lettered legend giving the name of the contents in full or abbreviated form.
- Arrows shall be used to indicate direction of flow.
- Legends shall be applied close to valves and adjacent to changes in direction, branches, and where pipes pass through walls or floors, and at frequent intervals on straight pipe runs.
- Identification may be accomplished by stenciling, the use of tape, or markers.
- Color may be used to identify the characteristic properties of the contents as outlined in the table below using safety colors listed above.

MATERIALS CLASSIFICATION	COLOR OF FIELD	COLOR OF LETTERS FOR LEGEND
HAZARDOUS MATERIALS		
· Flammable, Explosive, Chemically active, Toxic, Extreme pressure or extreme temperature.	YELLOW	BLACK
· Radioactive	PURPLE	YELLOW
LOW HAZARD MATERIALS		
· Liquid or liquid admixture	GREEN	BLACK
· Gas or gaseous admixture	BLUE	WHITE
FIRE QUENCHING MATERIALS		
· Water, Foam, CO_2, etc.	RED	WHITE



Where pipe lines are located above the normal line of vision, the lettering shall be placed below the horizontal centerline of the pipe in such a manner as to make the legends visable to the eye.

**References: The Occupational Safety and Health Administration, Labor, CODE OF FEDERAL REGULATIONS, 29 § 1910.144 Safety color code for marking physical hazards; and ANSI (American National Standards Institute) American National Standard "Scheme For The Identification of Piping Systems" A13.1-1975 published by the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017.