

GENE JUAREZ®

A C A D E M Y

Student Right to Know:
Chemical Hazard
Training Manual

CHEMICAL HAZARD COMMUNICATION

INTRODUCTION

Students have the right to be informed about the hazardous chemicals with which they are working under the Occupational Safety and Health Administration's "Chemical Hazard Communication" rule.

While the Occupational Safety and Health Act (OSHA) focuses on the manufacturing sector, Washington State law applies to non-manufacturing employees, as well as manufacturing employees. As a student, we want you to be informed as well.

We want you to be aware of any hazards, no matter how unlikely, that may arise from exposure to the chemicals that are in the cosmetic/beauty supply products you use during your training. While we do not want to alarm you, we do want you to be aware that some of the products you may use do contain hazardous chemicals. Please note this is the same handbook that is given to employees of Gene Juarez Salons, Inc. Although you are not an employee, the same guidelines should be followed as stated in this handbook, as well as the instruction you receive during your cosmetology or manicuring training. If you have any questions or concerns, contact your General Manager.

CHEMICAL HAZARD SAFETY PRECAUTIONS

It is very important to protect yourself from the hazards of chemicals. The skin is the largest organ of the body and will absorb anything with which it comes into contact. Chemicals should be used with caution.

Always wear gloves when using chemicals such as:

- Bleach products
- Tint products
- Semi-permanent wave lotions
- Shampoos
- Hairspray
- Mousse
- Nail polish remover

If chemicals should come into contact with the skin or the eyes, flush with cool water to avoid irritation.

The lungs are another vulnerable organ for the cosmetologist/ employee. Chemicals can be corrosive to the lungs and skin. Do not inhale products directly.

Products to use with caution are:

- Bleach products
- Tint products
- Semi-permanent color
- Permanent wave lotions
- Shampoos
- Hairspray
- Mousse
- Nail polish remover

In addition to these precautions, you will be given a Chemical Hazards Communication program. Please take time to read this important information to insure that you have been made aware of the chemical hazards present in your work place.

If you have any questions or concerns about the material you have read, call the Director of Purchasing, for more information.

1. THE REQUIREMENTS OF THE HAZARD COMMUNICATION STANDARD
(See Hazard Communication Program Policy)

2. WORKING SITUATIONS WHERE HAZARDS ARE PRESENT:

- Designers
- Technical
- Make-up Artists
- Nail Technicians
- Skin Care Therapists
- Dispenser
- Receptionist

3. WHAT THE WARNING ON CONTAINER LABELS MEANS

Hazardous chemicals must be labeled with the identity of the hazardous chemical (s), the appropriate hazard warning, and the name and address of the chemical manufacturer, importer, or other responsible party.

The standard specifically exempts from its labeling requirements products regulated by the Federal Drug Administration (FDA). Because the majority of the products we purchase are cosmetic or hair products which fall with the FDA's purview, we do not have to address the standard's labeling requirement at this time. Because we anticipate a change in this law, we have contacted each manufacturer and have requested proper labeling.

4. THE LOCATION OF THE WRITTEN HAZARD COMMUNICATION PROGRAM, LISTS OF HAZARDOUS CHEMICALS, AND SAFETY DATA SHEETS.

The written Hazard Communication Program, list of hazardous chemicals, and data sheets are in the office of the Director of Purchasing and in the salon dispensary. You are entitled to review the Safety Data Sheets (SDS) during your work shift.

5. HOW TO OBTAIN FURTHER INFORMATION ABOUT AN SDS

If you would like more information on a hazardous chemical, contact the Director of Purchasing or the salon manager.

The SDS is an important document provided by OSHA. An example of an SDS and the minimum information that the SDS must contain is attached.

6. HOW TO DETECT THE PRESENCE OR RELEASE OF HAZARDOUS CHEMICALS.

The primary potential hazards of the health of hairdressers and barbers appear to be associated with the inhalation of hair sprays and skin sensitivity to oxidation-type hair coloring preparations. Skin irritation and sensitization may also result from exposure to permanent wave solutions.

The primary potential hazards to the health of nail technicians appear to be associated with the inhalation of or skin sensitivity to artificial nail preparation materials and solvents.

Studies have been made at our locations by the Department of Labor and the University of Washington, and it has been determined that in personal air sampling, the chemical exposures were far below the average allowable limit of the OSHA standard.

7. PHYSICAL AND HEALTH HAZARDS OF HAZARDOUS CHEMICALS

As part of your hazard communication training, you will receive a Chemical use and Storage Standard by product type of the hazardous chemicals involved and their particular physical and health hazards.

8. HOW TO PROTECT YOURSELF FROM OVEREXPOSURE, AND WHAT THE SYMPTOMS OF OVEREXPOSURE ARE

SOME GENERAL RECOMMENDATIONS ARE:

- Use in well-ventilated areas
- To avoid skin irritation, use rubber gloves
- Avoid eye contact
- Keep containers closed to avoid evaporation
- Wash hands frequently
- Use facial mask during application of artificial nails

9. EXPOSURE CONTROL METHODS, INCLUDING WORK PRACTICES, ENGINEERING CONTROL, ADMINISTRATIVE CONTROLS, PERSONAL PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES.

WORK PRACTICES

See #8 and Chemical Use and Storage Standards

ENGINEERING CONTROLS

Each location is equipped with exhaust ventilation systems that meet or exceed the ventilation for acceptable indoor air quality, according the ASERAE standard.

ADMINISTRATIVE CONTROLS

Management is committed to replacing toxic chemicals with non-toxic or less-toxic chemicals, as they are introduced into the cosmetic industry.

SDS INFORMATION INDEX

HOW TO READ SDS HAZARD SHEETS

1. Product or chemical identity used on the label
2. Name, address and phone number for hazard and emergency information
3. Date of SDS preparation
4. Chemical and common names of hazardous ingredients
5. WISEA or OSHA permissible exposure limit (PEL), AGGIE threshold limit value (TLV), and other applicable limits
6. Physical and chemical characteristics, such as vapor pressures and flash point
7. Physical hazards, including the potential for fire, explosion, and reactivity
8. Primary routes of entry in to the body, such as inhalation, ingestion, or skin absorption.
9. Health hazards, including signs and symptoms of exposure and medical conditions aggravated by exposure
10. Carcinogenic hazard – National Toxicology Program (NTP) Annual Report on Carcinogens, International Agency for Research on Cancer (IARC) Monographs, or regulated by WISEA or OSHA.

NOTE: If a chemical is not carcinogenic or if there is no information about its carcinogenicity, then information about item 10 doesn't have to be listed unless a blank is provided on the form.

11. Emergency and first aid procedures
12. Precautions for safe handling and use, including hygienic practices, repair and maintenance protective measure, and spill/ leak clean-up.
13. Exposure control measures such as engineering controls, work practices, and personal protective equipment.

Section V—Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable		

Incompatibility (*Materials to Avoid*)

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur		

Section VI—Health Hazard Data

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
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Health Hazards (*Acute and Chronic*)

Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?
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Signs and Symptoms of Exposure

Medical Conditions
Generally Aggravated by Exposure

Emergency and First Aid Procedures

Section VII—Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

Waste Disposal Method

Precautions to Be Taken in Handling and Storing

Other Precautions

Section VIII—Control Measures

Respiratory Protection (*Specify Type*)

Ventilation	Local Exhaust	Special
	Mechanical (<i>General</i>)	Other

Protective Gloves	Eye Protection
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Other Protective Clothing or Equipment

Work/Hygienic Practices

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HAZARD COMMUNICATION PROGRAM

1. Company Policy

To ensure that information about the dangers of all hazardous chemicals used by Gene Juarez Salons, Inc. are known by all affected employees, the following hazardous information has been established:

All work units of the Company will participate in the hazard communication program. This written program will be available in the corporate Office, Personnel Department, for review by any interested employee.

2. Container Labeling

The corporate buyer will verify that all containers received for use will be clearly labeled as to the contents, note the appropriate hazard warnings, and list the name and address of the manufacturer.

The salon manager in each section will ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels that have the identifying and the appropriate hazard warning. For help with labeling, see the Director of Purchasing.

The corporate buyer will review the company labeling procedures every quarter and update as required.

3. Safety Data Sheets (SDS)

The Director of Purchasing is responsible for monitoring the Company SDS program. He/she will make sure procedures are developed to obtain the necessary SDS's and will review incoming SDS's for new or significant health and safety information. He/she will see that any new information is passed on to affected employees.

Copies of SDS's will be available to all employees during each work shift. Contact the Director of Purchasing to secure a copy of an SDS. If requested, a copy of the SDS will be sent to the employee's location by messenger during the work shift.

4. Employee Training and Information

The Director of Human Resources is responsible for the company employee training program and will ensure that all program elements specified below are carried out.

Each new employee of Gene Juarez Salons, Inc. will attend an orientation that includes the following safety and health information and training:

- An overview of the requirements contained in the Hazard Communication Standards.
- Hazardous chemicals present at the workplace.
- Physical and health risks of the hazardous chemicals.
- The symptoms of over-exposure.

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- How to determine the presence or release of hazardous chemicals in the work area.
- How to reduce or prevent exposure to hazardous chemicals through the use of control procedures, work practices, and personal protective equipment.
- Steps the company has taken to reduce or prevent exposure to hazardous chemicals.
- Procedures to follow if employees are over-exposed to hazardous chemicals.
- How to read labels and review SDS's to obtain hazard information.
- Location of the SDS file and written hazard communication program.

Prior to introducing a new chemical hazard into any section of this Company, each employee in that section will be given information and training as outlined above for the new chemical hazard.

5. Hazardous Non-Routine Tasks

Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by the salon manager about the hazardous chemicals he or she may encounter during such an activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and the steps the Company is using to reduce the hazards, including ventilation, respirators, the presence of another employee, and emergency procedures.

6. Information Contractors

It is the responsibility of the Director of Facilities to provide contractors with information about hazardous chemicals that their employees may be exposed to on a job site and suggested precautions for the contractor's employees.

7. List of Hazardous Chemicals

The following is a list of all known hazardous chemicals used by our employees. Further information on each chemical may be obtained by reviewing SDS's located at the corporate Office, Personnel Department, or the salon manager's office.

SDS IDENTITY

DESIGNERS

- Shampoos
- Alcohol
- formaldehyde
- Coal tar derivatives
- Hexachlorophene
- Sodium lauryl sulfate
- Trisodium phosphates
- Acids
- Quarternary ammonium compounds

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DESIGNERS, cont.

Setting Lotions

Alcohol
Carbomer 940
Quaternium compounds
Surfactants
Triisopropanolamine
Formaldehyde

Wetting Agents

Ammonium hydroxide
Ammonium phosphate
Calcium hydroxide
Ammonium thioglycolate
Calcium thioglycolate
Detergents

Conditioners

Formaldehyde
Alcohol
Petroleum
Distillates
Quaternary ammonium compounds
Detergents and soaps

Hairspray

Denatured ethyl alcohol
Methylene chloride
Tert-butyl alcohol
Cetyl alcohol
Oleyl alcohol

TECHNICIANS

Permanent Waves

Ammonium thioglycolate
Ammonia or amines
Sodium hydroxide
Isopropyl alcohol

Neutralizers

Boric acid and borates
Sodium bromate
TEA-lauryl sulfate
Cetyl alcohol

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TECHNICIANS, cont.

Straighteners / Relaxers

Ammonium bisulfite
Ammonium hydroxide
Ammonium thioglycolate
Ammonium thioglycolate salts
Sodium hydroxide
Potassium hydroxide

Semi-Permanent and Temporary Hair Colors

Aromatic nitro dyes
Detergents
Isopropanol
Ammonia
Cationic surfactants

Hair Toners

Dyes
Isopropanol
Aromatics diamines
Aminophenols
Polyhydric phenol

Hair Tints - Synthetic Organic Dyes

Isopropyl alcohol
Ammonia / ammonium hydroxide
Polydric phenols
Quarternary ammonium compounds
Nonionic and anionic surfactants

Hair Bleaches - Cream

Ammonium hydroxide
Sodium silicate
Ammonium persulfate

Hair Bleaches - Oil

Similar to cream or liquid

Hair Bleaches – Liquid

Ammonium acetate

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TECHNICIANS, cont.

Hair Bleaches - Powder

Persulfates
Sodium metasilicate

MAKE-UP ARTISTS

Mascara

Ethyl alcohol
Quaternium -15
Lanolin

Coloring Foundation Creams

Lanolin
Quarternium-15
Fragrances

Concealers

Lanolin
Quarternium-15
Talc

Eyeliner

Acrylic resins
Quarternium-15
Essential oils (clove, eucalyptus, menthol, etc.)

Eyeshadow

Camphor, menthol, clove, eucalyptus, etc.

Face Powder

Talc

Face Coloring Products (Blush, Powders, Liquid Make-up)

Bismuth oxychloride

Quaternium-15
Talc
Mica
Sodium borate
Isopropyl alcohol



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NAIL TECHNICIANS

Acrylic ester monomer and/or polymer
Dimethyl P-Toluidine
Benzoyl peroxide
Butylated hydroxytoluene
Titanium dioxide
Ethyl methacrylate

Cuticle Softeners

Potassium hydroxide

Chemical Use and Storage Standards
for
CREAM HAIR BLEACHES

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

**A. Often two parts: Part 1—Bleach Bases
Pats, Oils, Gels (20-95%)**

Examples:

1. Monylphenoxypolyethanol
2. Stearic acid
3. Mineral oil
4. Polyethylene glycol
5. Stearate
6. Petrolatum
7. Ammonium hydroxide (0-1%)*
8. B & C color (trace)
9. Water (balance)

B. Part 2 - Activators

1. Ammonium persulfate* (0-75%)
2. Sodium silicate* (used with persulfates, 0-30%)
3. Hydrogen peroxide (0-15%, present in non-persulfate products)
4. D & C color (0-3%)
5. Ethylenediaminetetraacetic acid (EDTA, 0-1%)

May contain:

1. Butoxyethanol
2. Oleic acid
3. Ethylhydroxymethylolloxazoline
4. Polyethylene glycols (PEO5, PEO1, etc)
5. Oleamide DEA

Parts 1 and 2 are normally mixed prior to use.

II. Health Hazards

A. Inhalation

Inhalation of activator powders or fumes may result in irritation of the respiratory tract. Under normal circumstances, inhalation of toxic components of these products is unlikely.

B. Ingestion

Ingredients in the cream base are ordinarily only slightly toxic. However, the inclusion in the activator or cream base of lighter concentrations of ammonium hydroxide, ammonium persulfate, sodium silicate, and hydrogen peroxide may result in irritation and chemical burns to the mouth, throat, and stomach, should these products be ingested. Ingestion of motivators is expected to cause the more serious health effects. Fats, oils, surfactants, and other typical ingredients of the cream bases may act as laxatives if ingested. The toxicity of certain materials such as nonylphenoxypolyethanol is poorly defined but is expected to be low.

C. Skin and eye contact

1. Hydrogen peroxide, ammonium hydroxide, ammonium persulfate (acid), and sodium silicate are all known skin and eye irritants in sufficient concentration. In persulfate activators, a caustic material such as sodium silicate can be utilized to correct the pH, due to formation of acid solution by the persulfate. Sodium silicate in itself is a strong detergent and irritant.
2. The overall product formulations tend to be slight to moderate irritants to skin and eyes with the activators again having the most hazardous components.

III. Storage and Handling

A. Storage

1. The cream bleach base portion of these products poses no unusual storage problems.
2. Products with high fat and oil content may be combustible and should be protected from sources of extreme heat.
3. Products with a separate activator part probably contain persulfates or peroxides. These are both highly reactive with organic materials. Persulfate powder will react with some metals and many organic materials such as solvents, hair sprays, household dusts, paper wood, carpet, etc. The reaction is accelerated by heat and may produce enough energy to ignite surrounding materials.
4. Hydrogen peroxide is packaged in a diluted form, which is less likely to react violently, but which can release enough gas to burst a closed container. Ignition of gases evolved from old hydrogen peroxide product or product decomposed by heat or contamination can also result in explosion and/ or fire.
5. Do not store activators in areas where contact with any of the above materials may occur. The storage area must not be exposed to direct sunlight, sources of excessive heat, or flames. Avoid contact of those products with exposed aluminum, zinc, iron, and other unprotected metals. Glass, tile, ceramic, formica, and metal with enamel or paint coating in good condition are examples of good storage and work surfaces.

B. Handling

1. Clean up spills of activators promptly and flush down a drain with large amounts of water. do not dispose of persulfate saturated materials in waste containers as violent reactions are possible.
2. Saturated cloth must be rinsed and kept in a container of water until laundered. Paper such as napkins should be flushed into a sewer where possible.

3. Mix product components over a sink or a surface of a safe material, as listed under Storage.
4. Do not smoke or use electrical equipment near peroxide products when opening containers, as explosions are possible until confined gases disperse.

IV. First Aid and Health Protection

A. Use

1. Avoid inhalation of powdered product.
2. Avoid skin and eye contact with the product.

B. First Aid

1. Inhalation
 - a. FIRST carry or drag the victim to fresh air.
 - b. If the person is not breathing, begin mouth-to-mouth breathing. THEN call the Poison Center (in some cases, symptoms may be delayed).
2. Eye Contact
 - a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for AT LEAST 15 minutes.
 - b. THEN call the Poison center immediately after flushing is finished (in some cases, there might not be any pain right away, even with a significant injury).
3. Skin Contact
 - a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes. Remove clothing on which poison has been spilled.
 - b. Wash the affected skin with mild soap and water. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).
4. Ingestion
 - a. FIRST drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
 - b. THEN call the Poison Center for further instructions.

Chemical Use and Storage Standards
for
LIQUID HAIR BLEACHES

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for toxic effects.

A. Part 1: Often 2 or more parts

Alcohol type:

1. Hydrogen peroxide* (3-5%)
2. Water (85-95%)
3. Preservative (trace)
4. D & C colors (trace)

B. Part 2

1. Water (30-80%)
2. Alcohols* (ethyl alcohol, oicyl alcohol, isopropyl alcohol, butoxyethanol) - (20% to over 50%).
3. Alkali* (ammonia, ammonium hydroxide) (1-5%)
4. Oxidation dyes* (P-phenylenedlamine, aminophenal – 0- 1%)
5. Dyeing acids (resoreinol, hydroquinone, pyrogallol, salicylic acid) (0-1%)
6. Preservative (0-1%)
7. Sequestrant (EDTA, pentasodiumtriphosphate) (1-5%)
8. Dispersants, surfactants, emulsifiers (propylene glycol, polyglyceryl oleyl ethers, oleic acid, PEO esters) (0-10%).
9. Fragrance (essential oils, 0-1%)

C. Part 3 - Usually a shampoo

1. Surfactants (detergents, wetting agents, and amulsifiers)*
2. Water (over 50%)
3. Perfume (essential oils up to 1%)
4. Coloring (up to 1%)
5. Preservatives (up to 1%)

May contain:

1. Sodium disulfate (0-1%)
2. Ammonium acetate* (0-1%)
3. Potassium persulfate (see **POWDERED BLEACHES**)
4. Glycerin (less than 1%)
5. Hapthol (less than 1%)

II. Health Hazards

A. Inhalation

1. The major inhalation health hazard is due to inhalation of ammonia and alcohol fumes. Ammonia vapors are irritating to the respiratory tract and may result in edema of respiratory tract tissues. Breathing difficulty may develop. Alcohols in these products may also irritate the respiratory tract and, in addition, can cause headaches, dizziness, and depression. Excessive inhalation can result in deep coma and respiratory arrest.
2. For powdered persulfates, inhalation may result in severe irritation of the respiratory tract and edema of the lungs and bronchial tubes.

B. Ingestion

1. Ingestion of the hydrogen peroxide and ammonia portions of the products may result in irritation and inflammation of the mouth, throat, and stomach. Spontaneous vomiting may occur after ingestion of the hydrogen peroxide portion.
2. Products containing ammonium acetate and other ammonium salts may produce some degree of systemic intoxication.
3. Ingestion of some oxidation dyes accidentally or chronically from contaminated hands, food, or cigarettes presents a possible cancer risk.
4. The major active components of shampoos are detergents and soaps. Ingestion in large amounts may cause nausea, vomiting, and diarrhea. Shampoos may be mildly caustic and irritation of the mouth and esophagus are possible.

C. Skin and Eye Contact

1. Prolonged or repeated skin contact with hydrogen peroxide and ammonia or alkali portions of these products may lead to skin irritation and dermatitis. Some bleaching of the skin is possible.
2. Dyes and other additives may cause allergic dermatitis reactions with some dyes also being suspected of promoting skin cancer.
3. Hydrogen peroxide, alkali, and shampoo detergents are eye irritants. Alkalis such as ammonia may result in caustic burns if left in the eye.

III. Storage and Handling

A. Storage

1. Hydrogen peroxide and persulfants pose serious storage hazards.
2. Products with high fat and oil content may be combustible and should be protected from sources of extreme heat.
3. Products with a separate activator part probably contain persulfates or peroxides. These are both highly reactive with organic materials. Persulfate powder will react with some metals and many organic materials such as solvents, hair sprays, household dusts, paper, wood, carpet, etc. The reaction is accelerated by heat and may produce enough energy to ignite surrounding materials.
4. Hydrogen peroxide is packaged in a diluted form which is less likely to react violently but which can release enough gas to burst a closed container. Ignition of gases evolved from old hydrogen peroxide product or product decomposed by heat or contamination can also result in explosion and/ or fire.
5. Do not store activators in areas where contact with any of the above materials may occur. The storage area must not be exposed to direct sunlight, sources of excessive heat, or flames. Avoid contact of these products with exposed aluminum, zinc, iron, and other unprotected

metals. Glass, tile, ceramic, formica, and metal with enamel or paint coating in good condition are examples of good storage and work surfaces.

B. Handling

1. Clean up spills of activators promptly and flush down a drain with large amounts of water. Do not dispose of persulfate-saturated materials in waste containers, as violent reactions are possible.
2. Saturated cloth must be rinsed and kept in a container of water until laundered. Paper such as napkins should be flushed into a sewer where possible.
3. Mix product components over a sink or a surface of a safe material as listed under Storage.
4. Do not smoke or use electrical equipment near peroxide products when opening containers, as explosions are possible until confined gases disperse.

IV. First Aid and Health Protection

A. Use

1. Avoid inhalation of ammonia vapors, alcohol, and hydrogen peroxide vapors by working only in well-ventilated areas.
2. Always use gloves when working with these products.
3. Protect eyes from contact with these products.
4. When pouring, keep container close to a surface to avoid splashing.
5. Use: shampoo components
 - a. Use in well-ventilated areas, avoiding unnecessary inhalation of vapors.
 - b. Use rubber gloves if frequently using shampoo components.
 - c. Use shampoo components carefully so as to avoid splashing in eyes. Rinse hands or remove gloves before contacting eyes.

6. Use: powdered portions
 - a. Avoid inhalation of powdered portions.
 - b. Avoid skin and eye contact with products; use gloves.

B. First Aid

1. Ingestion

- a. **FIRST** drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
- b. **THEN** call the Poison Center for further instructions.

2. Inhalation

- a. **FIRST** carry or drag the victim to fresh air.
- b. If the person is not breathing, begin mouth-to-mouth breathing.
- c. **THEN** call the Poison Center (in some cases, symptoms may be delayed).

3. Skin Contact

- a. **FIRST FLUSH** the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. **THEN** call the Poison Center (if there is a burn or break in the skin or if redness or irritation persists).

4. Eye Contact

- a. **FIRST FLUSH** the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. **THEN** call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

Chemical Use and Storage
for
OIL HAIR BLEACHES

CLUSTER A: BARBERING AND
HAIRDRESSING

I. Storage and Handling

- A. Dispose of persulfate-saturated materials in waste containers, as violent reactions are possible.
- B. Saturated cloth must be rinsed and kept in a container of water until laundered. Paper such as napkins should be flushed into a sewer where possible.
- C. Mix Product components over a sink or a surface of a safe material, as listed under Storage.
- C. Do not smoke or use electrical equipment near peroxide products when opening containers, as explosions are possible until confined gases disperse.

II. First Aid and Health Protection

A. Skin Contact

- 1. Wash the affected skin with mild soap and water.
- 2. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

B. Eye Contact

- 1. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- 2. THEN call the Poison Center immediately after flushing is finished (in some cases there may not be any pain right away, even with a significant injury).

Chemical Use and Storage
for
POWDERED HAIR BLEACHES

CLUSTER A: BARBERING AND
HAIRDRESSING

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

A. Typical formulations

- 1. Persulfates* (sodium, potassium, or ammonium).
- 2. Persulfate (over 10%)
- 3. Stearates (sodium or calcium stearate, and ammonium distearate)
- 4. Ethylenediaminetetracetic acid (EDTA, under 3%)
- 5. Thickening agent (tragacanth gum, hydroxypropyl methylcellulose)

May contain:

- 1. Sodium metasilicate (alkalins detergent, anticaking agent)
- 2. Silica (anticaking agent)
- 3. Hydrated silica (suspending agent for silica, gelling agent)
- 4. Diammonium phosphate (mild alkali, fire-proofing agent)
- 5. Sodium lauryl sulfate (detergent, surfactant)
- 6. Dioctyl sodium sulfosuccinate (wetting agent, disperser)
- 7. Magnesium carbonate (alkali, anticaking agent)

II. Health Hazards

A. Inhalation

Inhalation of powdered bleaches may result in severe irritation of the respiratory tract and edema of the lungs and bronchial tubes.

B. Ingestion

Ingredients in these products ordinarily have low systemic toxicity but may be strong irritants or result in chemical burns to the mouth, throat, and stomach. A laxative effect may occur with products containing larger amounts of detergents and surfactants.

C. Skin and Eye Contact

Persulfates (acid) and sodium metasilicate (alkaline) are irritating to skin and eyes. Prolonged contact with skin or contact with eyes may result in chemical burns. Sodium metasilicate and diammonium phosphate may moderate the irritant effects of persulfates in some products by balancing product pH. Dermatitis will occur with frequent skin contact.

III. Storage and Handling

A. Storage

1. Persulfates are strong oxidizers which will react with some metals and many organic materials such as solvents, hair sprays, household dust, paper, wood, carpet, etc. The reaction is promoted and accelerated by heat and, once started, may produce enough heat to ignite surrounding materials. Explosions are possible in reactions with solvents or dusts. Diammonium phosphate and EDTA may reduce the tendency for those products to react violently.
2. Do not store near heat sources, in strong light, or in areas where contact with hair sprays, solvent-like products, paper, dust, nail resins, etc., is possible. Glass, formica, tile, ceramic, and painted or enamel-coated metal are examples of good storage surfaces for these materials.

B. Handling

1. Use and mix these products only over a sink or the surfaces of the materials listed above.
2. Clean up spills of powdered bleaches immediately and flush down a drain with large amounts of water.
3. Do not vacuum these products or place in common waste containers as violent reactions or fire are possible. Saturated cloth must be rinsed and kept in a water container until laundered. Paper saturated with these materials should be flushed into a sewer where possible.
4. Dispose of unused product in a sewer.

IV. First Aid and Health Protection

A. Use

1. Avoid inhalation of powdered product.
2. Avoid skin and eye contact with product; use gloves.

B. First Aid

1. Inhalation

- a. FIRST carry or drag the victim to fresh air.
- b. If the person is not breathing, begin mouth-to-mouth breathing.
- c. THEN call the Poison Center (in some cases, symptoms may be delayed).

2. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

3. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes. Remove clothing on which poison has been spilled.
- b. Wash the affected skin with mild soap and water.
- c. THEN call the Poison Center (if there is a burn or break in the skin or if redness or irritation persists).

4. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
- b. THEN call the Poison Center for further instructions.

Chemical Use and Storage Standards
for
COLOR CORRECTORS

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

- A. Dyes*
- B. Emulsifiers
- C. Water

May contain:

- 1. Perfume (essential oils)
- 2. Glycols
- 3. Ammonia

Dyes:

- 1. Aminophenols*
- 2. Aromatic (Acyl) Diamines*
- 3. Pyrazolone
- 4. Mono and Polyhydric Phenols*
- 5. EDTA
- 6. Thloglycolic acid*

II. Health Hazards

A. Inhalation

- 1. Amines from dyes and ammonia given off in vapors may be irritating to the throat and respiratory tract. Some amines act as sensitizers to the respiratory tract and asthma.
- 1. Some polyhydric phenol vapors may be irritating to the eyes, nose and throat. They may also slightly reduce the oxygen-carrying capacity of the blood, as with exposure to aminophenols.
- 2. Isopropyl alcohol may give off vapors which act as a central nervous depressant.

C. Ingestion

- 1. Ingestion of dye components may irritate the gastrointestinal tract. Such compounds, if swallowed, may affect the nervous system. If a large enough quantity were swallowed, restlessness, dizziness, or convulsions might result.
- 2. Ingestion of isopropyl alcohol may result in pain, nausea, vomiting, and depression of the central nervous system.

D. Skin and Eye Contact

- 1. Severe sensitivity may result from the use of color correctors, causing dermatitis.
- 2. Eye contact with color corrector may cause eye damage.

III. Storage and Handling

A. Storage: There are no serious hazards. Keep caps sealed when storing to prevent escape of vapors.

B. Handling

- 1. Clean up spills promptly and dispose of saturated materials outside of work and storage areas.
- 2. Do not use tints for dyeing eyelashes or eyebrows.

IV. First Aid and Health Protection

A. Use

- 1. Use only in well-ventilated areas, avoiding unnecessary inhalation of vapors.
- 2. Use gloves when using color correctors.

3. When pouring, keep bottle close to a surface to avoid splashing.
4. Remove gloves and wash hands before touching eyes.

B. First Aid

1. Eye Contact
 - a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
 - b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

2. Skin Contact
 - a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes.
 - b. Wash the affected skin with mild soap and water.
 - c. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

3. Ingestion
 - a. FIRST drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
 - b. THEN call the Poison Center for further instructions.

Chemical Use and Storage Standards
for
Developers and Peroxides

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

- A. Water
- B. Hydrogen peroxide
- C. Emulsifiers
- D. Fatty acid alcohols

May contain:

- 1. Non-toxic surfactants
- 2. Strontium peroxide
- 3. Inorganic pigments
- 4. EDTA
- 5. Wetting agents
- 6. Sodium and potassium persulfates

II. Health Hazards

A. Inhalation

Not normally a source of vapors or gases. Peroxide vapors may irritate the nose, throat, and respiratory tract.

B. Ingestion

Major active ingredient in most developers is hydrogen peroxide or potassium/sodium persulfate. Both are strong irritants to the gastro-intestinal tract. Spontaneous vomiting may occur.

C. Skin and Eye Contact

- 1. Exposure to the eye will result in irritation.
- 2. If contact with the skin is brief, little damage to the skin occurs other than a possible whitening of the skin. Long periods of contact may produce burns.

III. Storage and Handling

A. Storage

Products will degrade and containers may burst if exposed to heat or strong light. These products are oxidizers and must be stored separately from flammable solvents, resins, and polish removers.

B. Handling

Do not open peroxide products near electrical devices or other sources of ignition, as explosions are possible until built-up gases disperse.

IV. First Aid and Health Protection

A. Use

Avoid breathing concentrated fumes from product containers. Take care to prevent eye or skin contact. Wear gloves when using these products.

B. First Aid

1. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

2. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes. Remove clothing on which poison has been spilled.
- b. Wash the affected skin with mild soap and water.

c. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

3. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing or unable to swallow.
- b. THEN call the Poison Center for further instructions.

Chemical use and Storage Standards
for
Hair Spray

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

Pressurized:

A. Propellant (50%)

May contain:

1. Propane
2. Carbon Dioxide
3. Isobutane

B. Lacquer or Plastic Resins in Alcohol (up to 50%)

May contain:

1. Polyvinyl methyl ether/ maleic anhydride copolymer
2. Polyvinyl pyrrolidone
3. Denatured ethyl alcohol (SDA-10)* (about 10% of total volume).

May contain:

1. Methylene chloride (up to 10%)*
2. Aminomethyl propanol
3. Dimethyl phiholate
4. Tri-butyl alcohol*
5. Protein hudrolysote
6. Lanolin and derivatives
7. Cetyl alcohol*
8. Oleyl alcohol*
9. Perfume

Non-pressurized:

C. Lacquer or Plastic Resins in Alcohol (30 - over 50%)

May contain:

1. Polyvinyl methyl ether/ maleic anhydride coploymer
2. Vinyl acetate/ crotonic acid/ vinyl neodecanosic terpolymer
3. Polyvinyl pyrrolidone
4. Denatured ethyl alcohol (SDA – 10)* (30 – over 50% of total volume)

5. Carboxylated polyvinyl alcohol

May Contain:

1. Methylene chloride* (up to 20%)
2. Amino methyl propanol
3. Dimethyl phiholate (a plasticizer)
4. Teri-butyl alcohol*
5. Protein hydrotysate
6. Lanolin and derivatives
7. Cetyl alcohol*
8. Oleyl alcohol*
9. Perfume
10. Water (up to over 30%)

II. Health Hazards

A. Inhalation

1. Hair spray particles or aerosols are suspected of impairing the action of the protective clearance mechanism of the respiratory system by damaging tiny hair cells that line the air passages. Resins and plastics in the sprays have been suggested to be related to development of the controversial disease sarcoiosis or “thesaurosis”.
2. Methylene chloride and alcohols contained in hair sprays are irritants and nervous system depressants. Direct inhalation of hair spray will result in severe irritation of the respiratory tract, causing a swelling of tissues (pulmonary edema) and possible fatal chemical pneumonitis due to coating of lung tissue resulting in asphyxiation.
3. Perfumes, lanolin, protein and other components of hair spray may result in allergic sensitization of some individuals with repeated exposure or may aggravate pre-existing allergic conditions. Asthmatic responses may occur on occasion.

B. Ingestion

Hair sprays are slightly to moderately toxic by ingestion, depending on the content of the methylene chloride and the particular alcohols utilized. Between 1 oz. and 1 pint (1 pound) of product can result in severe illness of death if ingested. Irritation of the gastrointestinal tract may occur as well as central nervous system depression and liver damage.

C. Skin and Eye Contact

1. Hair sprays may result in slight to severe eye irritation, depending on the degree of eye contact. Persons with allergies may exhibit swelling, tearing, and redness of eyes with even slight contact to vapors.
2. Skin contact is usually not a problem; however, methylene chloride and alcohols will remove skin oils and fats, resulting in a dry dermatitis with red and sore skin if contact is frequent and extensive.

III. Storage and Handling

A. Storage

1. Avoid storing large volumes of hair spray and other flammables.
2. If possible, store where sprinkler systems or other fire safety devices are available.
3. Never store pressurized containers where temperatures exceed 140 degrees Fahrenheit. Explosion and fire may result.
4. Never store near oxidizers of acids such as hydrogen peroxide, bleach, and artificial nail glues, resins, or hardeners. Violent reactions are possible.

B. Handling

1. Do not use near sources of ignition such as electric razors and clippers or smoking clients.
2. Clean up spills promptly and remove saturated materials from work and storage areas.
3. Use only with adequate ventilation.

IV. First Aid and Health Protection

A. Use

1. Use only in well-ventilated areas, avoiding unnecessary inhalation of vapors.
2. Avoid skin and eye contact.

B. First Aid

1. Inhalation

- a. FIRST carry or drag the victim to fresh air.
- b. If the person is not breathing, begin mouth-to-mouth breathing.
- c. THEN call the Poison Center (in some cases, symptoms may be delayed).

2. Eye contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

3. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

4. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing or unable to swallow.
- b. THEN call the Poison Center for further instructions.

Chemical Use and Storage Standards for Hair Straighteners and Relaxers

CLUSTER A: BARBERING AND HAIRDRESSING

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

A. Temporary straighteners (pressing oils)

1. Petrolatum (50 – 90%)
2. Mineral oil (0 – 30%)
3. Waxes (0 – 8%)
4. Lanolin (5%)
5. Perfume

May also contain:

1. Cetyl alcohol (2%)
2. Phenyl dimethicone (1%)
3. D & C dyes
4. Stearyl alcohol
5. Vegetable oils

B. Bisulfite permanent straighteners

1. Bond-breaking agent
2. Ammonium bisulfite*
3. Isopropyl alcohol
4. Ammonium hydroxide*
5. D & C dye
6. Urou
7. Magnesium silicate
8. Guar gum
9. Perfume
10. Neutralizer conditioner agent
11. Sodium seaquicarbonate
12. Water
13. Acrylic copolymer
14. Quaternary ammonium detergent
15. Phosphoric acid

C. Thloglycolate straighteners

1. Water (up to 70%)
2. Ammonium thloglycolate or other thloglycolate salts* (10%)
3. Triethanolamine laryl sulfate (2%)
4. Ammonium hydroxide*
5. Lanolins
6. Mineral oil

7. Glycol esters
8. Glycol
9. Stearyl alcohol
10. Cetyl alcohol
11. Perfume

May contain:

1. Oleic acid
2. Cocamide DEA
3. Potassium oleate
4. Sodium bisulfite
5. Amphoteric – 2

D. Sodium hydroxide straighteners

1. Water
2. Petrolatum
3. Mineral oil
4. Propylene glycol
5. Sodium hydroxide*
6. Stearyl alcohol
7. Cetyl alcohol
8. laneth – 15
9. Polyethylene glycol (PEQ)
10. Lanolin
11. Hydrolyzed animal protein
12. Fragrance (essential oils)

May also contain:

1. Potassium hydroxide*
2. Ceteareth – 5
3. Soybean oil
4. Benzyl alcohol
5. Diethanolamine

II. Health Hazards

A. Inhalation

1. Ammonia from ammonium bisulfite, ammonium hydroxide, and ammonium hydroxide, and ammonium thloglycolate may cause irritation of the throat, lungs, and sinuses.
2. Thloglycolate and bisulfite may release sulfur dioxide, hydrogen sulfide, or other noxious sulfur gases which will irritate the respiratory tract and may,

alone or in combination with ammonia vapors, result in nausea and breathing difficulty.

B. Ingestion

1. Hair pressing oil temporary type straighteners formulated largely from petrolatum and mineral oil are practically non-toxic, resulting only in a mild laxative effect in most cases.
2. Ammonium hydroxide, sodium hydroxide, potassium hydroxide, and thoglycolates in hair straighteners' render most products caustic, resulting in irritation and possible chemical burns when ingested. Sodium hydroxide products are particularly hazardous when ingested.
3. Bisulfite straighteners are acidic products and are generally less hazardous than the thoglycolate or sodium hydroxide straighteners. Ingestion of small amounts may result in gastric irritation and vomiting due to release of sulfuric acid. Large doses may cause violent colic and diarrhea.

C. Skin and Eye Contact

1. Sodium hydroxide and thoglycolate products may be highly damaging to the skin and eyes due to caustic and chemical bond breaking effects. Skin and eye burns may be severe, Skin, particularly the scalp, often becomes susceptible to abrasion, irritation, and inflammation after use of these products.
2. Bisulfite type straighteners are somewhat less hazardous than the sodium hydroxide and thoglycolate straighteners. Some irritation can be expected with eye contact or prolonged and repeated skin contact.

III. Storage and Handling

A. Storage

1. Avoid storing products where exposure to excessive heat may occur. Intact containers should pose no hazard under moderate temperature conditions.

2. Where children may be present, these products must be placed in a secure location.

B. Handling

Clean up spills promptly and dispose of saturated materials outside of storage and work areas.

IV. First Aid and Health Protection

A. Use

1. Follow label instruction carefully, avoiding unnecessary skin contact.
2. Wear gloves whenever handling the permanent type straighteners.
3. Ensure complete rinsing of chemicals from scalp after use.

B. First Aid

1. Inhalation

- a. FIRST carry or drag the victim to fresh air.
- b. If the person is not breathing, begin mouth-to-mouth breathing.
- c. THEN call the Poison Center (in some cases, symptoms may be delayed).

2. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

3. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes. Remove clothing on which poison has been spilled.
- b. Wash the affected skin with mild soap and water.
- c. THEN call the Poison Center (if there is a burn or break in the

skin, or if redness or irritation persists).

4. Ingestion

- a. **FIRST** drink a glass of plain water or milk unless unconscious, convulsing or unable to swallow.
- b. **THEN** call the Poison Center for further instructions.

**Chemical Use and Storage
for
HAIR TINTS– SYNTHETIC ORGANIC
DYES**

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

- A. p—Phenylenediamine and other color intermediates (trace – 0.5%)
- B. Isopropyl alcohol* (trace – 1%)
- C. Ammonia/ ammonium hydroxide* (0-3%)
- D. Polyhydric phenols*
- E. Carbitol/ glycols (0 - 1%)
- F. Essential oil (fragrance) (trace – 0.5%)
- G. Fatty acid alcohols (0 – 80%)
- H. Water (10%)
- I. Foam booster (20%)
- J. Developers:
 - 1. Hydrogen peroxide*
 - 2. Emulsifiers

May contain:

- A. Waxes
- B. Quaternary ammonium compounds* (cationic surfactants)
- C. Solubilizers
- D. Humectants
- E. Leveling agent 3%
- F. EDTA
- G. Non-ionic and anionic surfactants*
- H. Sodium sulfite
- I. Phosphoric acid

II. Health Hazards

A. Inhalation

- 1. Ammonia and amines may generate irritating vapors and gases which may cause running of the nose and sinuses and may irritate the nose and throat. p-Phenylenediamine is a sensitizer of the respiratory tract and may cause asthma.
- 2. Isopropyl alcohol may give off vapors which act as a central nervous depressant.

- 3. Some polyhydric phenol vapors may be irritating to the eyes, nose and throat (e.g., hydroquinone). They may also reduce the oxygen-carrying capacity of the blood.

B. Ingestion

- 1. Ingestion of poly-hydric phenols may irritate the gastrointestinal tract. Such compounds may cause headache, dizziness, nausea, and other nervous symptoms.
- 2. Hydrogen peroxide may cause extreme irritation of the mouth, throat, and stomach.
- 3. Ingestion of isopropyl alcohol may result in pain, nausea, and vomiting.

C. Skin and Eye Contact

- 1. Skin sensitivity may result from the use of hair tints causing dermatitis.
- 2. Eye contact with tints may cause severe eye damage or blindness.

III. Storage and Handling

A. Storage

- 1. Keep product stored in a cool place away from heat and light. Avoid contaminating developer before use. Failure to follow these precautions may cause the developer to burst.
- 2. Never store developers near combustibles such as hair sprays, as they may react upon contact.

B. Handling

- 1. Clean up spills promptly and dispose of saturated materials outside of work and storage areas.
- 2. Rinse used bottles before disposal.
- 3. After application, do not keep unused mixtures.

4. Do not use tints for dyeing eyelashes or eyebrows.

- b. THEN call the Poison Center for further instruction.

IV. First Aid and Health Protection

A. Use

1. Use only in well-ventilated areas, avoiding unnecessary inhalation of vapors.
2. Use gloves whenever mixing or using hair tints.
3. When applying, keep bottle close to a surface to avoid splashing skin or eyes.
4. Point developer away from face when opening.
5. Customers – Ensure that a customer's hair is thoroughly shampooed and rinsed after dyeing to remove excess dye.
6. Remove gloves and wash hands before touching eyes.

B. First Aid

1. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

2. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

3. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing or unable to swallow.

Chemical Use and Storage Standards for HAIR TONERS

CLUSTER A: BARBERING AND HAIRDRESSING

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

- A. Fatty acid and fatty acid alcohols (over 40%)
- B. Dyes* (0.1 – 1%)
- C. Isopropanol*
- D. Emulsifiers (1 – 5%)
- E. Water (over 10%)

May contain:

- 1. Perfume (essential oils)
- 2. Glycols
- 3. Thickening agents
- 4. Ammonia
- 5. Dyes:
 - a. Aromatic (acyl) diamines*
 - b. Aminophenols*
 - c. Nonionic and anionic surfactants
 - d. Polyhydria phenols*

V. Health Hazards

A. Inhalation

- 1. Amines from dyes and ammonia given off in vapors may be irritating to the throat and respiratory tract. Some amines act as sensitizers to the respiratory tract and asthma.
- 2. Some polyhydric phenol vapors may be irritating to the eyes, nose and throat. They may also slightly reduce the oxygen carrying capacity of the blood, as with exposure to aminophenols.
- 3. Isopropyl alcohol may give off vapors which act as a central nervous depressant.

B. Ingestion

- 1. Ingestion of dye components may irritate the gastrointestinal tract. Such compounds, if swallowed, may affect the nervous system. If a large enough quantity were swallowed, restlessness, dizziness, or convulsions might result.

- 2. Ingestion of isopropyl alcohol may result in pain, nausea, vomiting, and depression of the central nervous system.

C. Skin and Eye Contact

- 1. Severe sensitivity may result from the use of hair toners causing dermatitis.
- 2. Eye contact with toners may cause eye damage.

VI. Storage and Handling

A. Storage

There are no serious storage hazards. Keep caps sealed when storing to prevent escape of vapors.

B. Handling

- 1. Clean up spills promptly and dispose of saturated materials outside of work and storage areas.
- 2. Do not use tints for dyeing eyelashes or eyebrows.

VII. First Aid and Health Protection

A. Use

- 1. Use only in well-ventilated areas, avoiding unnecessary inhalation of vapors.
- 2. Use gloves when using hair toners.
- 3. When pouring, keep bottle close to a surface to avoid splashing.
- 4. Remove gloves and wash hands before touching eyes.

B. First Aid

- 1. Eye Contact
 - a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
 - b. THEN call the Poison Center immediately after flushing is finished (in some cases there may not be any pain right away, even with a significant injury).

2. Skin Contact

- a. **FIRST FLUSH** the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which the poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. **THEN** call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

3. Ingestion

- a. **FIRST** drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
- b. **THEN** call the Poison Center for further instructions.

Chemical Use and Storage Standards
for
NEUTRALIZERS – PERMANENT WAVE

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

A. Type 1

1. Water (over 50%)
2. Hydrogen peroxide (1 – 10%)
3. Surfactants* (detergents, wetting agents, and emulsifiers) (0 – 5%)
4. Protein (0 – 3%)
5. Phosphoric acid and phosphates*(0 – 1%)

B. Type 2

1. Boric acid and borates* (0 – 10%)
2. Sodium bromate* (10-25%)
3. Water (over 50%)
4. Phosphates* (0 – 1%)
5. Protein (0 – 3%)
6. Surfactants* (detergents, wetting agents, and emulsifiers) () – 1%)

May contain:

1. Stearates
2. TEA—Lauryl sulfate*
3. Cetyl alcohol*
4. Perfume (essential oils)
5. Hydroxy ethylcellulose
6. Petrolatum
7. Cetylpyridinium chloride
8. Styrene homopolymer
9. Cocamido butaine

II. Health Hazards

A. Inhalation

Not normally a source of vapors or gases, but may cause release of vapors and gases from permanent wave solutions.

B. Ingestion

1. Formulation Type 1 is primarily hydrogen peroxide and detergent-based. This combination could be expected to result in gastrointestinal irritation with possible spontaneous vomiting. Diarrhea may develop within an hour of ingestion.
2. Formulations of Type 2 containing boric acid or boric and bromates are quite toxic by ingestion with as little as 2 oz. resulting in serious poisoning in some individuals. Children will be especially susceptible to these solutions. Nausea, vomiting, and diarrhea may result, along with gastrointestinal pain. Nervous system effects include initial confusion and restlessness and then apathy or drowsiness and lethargy. Some kidney damage may be expected with severe poisoning.

C. Skin and Eye Contact

1. Both formulation types can be expected to result in eye irritation.
2. Prolonged or repeated skin contact can be expected to dry and irritate the skin, resulting in dermatitis.

III. Storage and Handling

A. Storage

These solution are non-flammable and are weak oxidizers and, in general, pose only slight storage hazards.

B. Handling

No special safety precautions are necessary.

C. Disposal

Rinse: do not mix with others.

IV. First Aid and Health Protection

A. Use

Avoid skin and eye contact. Wear gloves when using product.

B. First Aid

1. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

2. Skin contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes. Remove clothing on which poison has been spilled.
- b. Wash the affected skin with mild soap and water.
- c. THEN call the Poison Center (if there is a burn or a break in the skin, or if redness or irritation persists).

3. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
- b. THEN call the Poison Center for further instructions.

4. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

Chemical Use and Storage Standards
for
SETTING LOTIONS – LIQUID and GEL

**CLUSTER A: BARBERING AND
HAIRDRESSING**

I. Typical Chemical Contents

*Starred items are responsible for toxic effects.

A. Liquid

1. Water (25 – 80%)
2. Alcohol* (denatured ethanol) (0 – 50%)
3. Polymers (1 – 5%)
 - a. Polyvinyl pyrrodone derivatives (PVP)
 - b. Carboxy vinyl polymer
 - c. Carbomer 940*
 - d. Dimethyl amino hudroxypropyl diethylenetriamine copolymer
4. pH adjusters (0 – 3%)
 - a. Trethonolamine
 - b. Monoethanolamine
5. Conditioners (0 – 5%)
 - a. Quaternium compounds* (also etheths)
 - b. Protein and protein derivatives, albumin
 - c. Acylic apolymers
6. Stabilizers/ emulsifiers/ surfactants* (0 – 2%):
 - a. Polyoxyethylone sorbitan monolaurate
 - b. Trilsopropanolamine*
 - c. Ethylene molaic anhydride
7. Preservatives
 - a. Methyl para hydroxy benzoate
 - b. Propyl para hydroxy benzoate

May contain:

1. adipic acid
2. Glyourin
3. Formaldehyde*
4. Citric acid
5. Fragrance (essential oils)
6. Lanolin
7. D & C colors

B. Gel

1. Water (25 – 70%)
2. Alcohol* (denatured ethanol) (10 – 50%)
3. Polymers (1 – 5%)
 - a. Polyvinyl pyrrolidone derivatives (PVP)
 - b. Carboxy vinyl polymer
 - c. Carbomer 910*
4. pH adjusters (0 – 3%)
 - a. Triethanolamine
 - b. Diethanolamine
 - c. Monoethanolamine
5. Conditioners (0 – 5%)
 - a. Quaternium compounds* (benzathonium chloride)
 - b. Protein and protein derivatives
 - c. Acrylic copolymers
6. Stabilizers/ emulsifiers/ surfactants* (0 – 2%)
 - a. Sorbitan and polysorbates
 - b. Oleth- 20
 - c. Isocoteth-20
 - d. Dimethylcone copolyol
7. Preservatives
 - a. Benzophenone
 - b. Methyl parhydroxy benziate
 - c. Propyl parahydroxy benzoate
 - d. Formaldehyde*

May contain:

1. Panothenol (vitamin D)
2. EDTA
3. d & C colors
4. Fragrance (essential oils)

II. Health Hazards

A. Inhalation

Inhalation of ethyl alcohol may cause headaches, depression, and intoxication. Formaldehyde and essential oils may cause allergic reactions in some individuals.

B. Ingestion

1. The major hazard from ingestion of these products is due to the denatured ethyl alcohol which most of these contain. Intoxication, nausea, and depression are probable symptoms. Severe cases may exhibit hypoglycemia, convulsions, stupor, and loss of consciousness.
2. Gastrointestinal irritation, nausea, vomiting, and diarrhea may result from surfactants and quaternium compounds. Individuals sensitive to quaternium compounds, essential oils, and formaldehyde may exhibit allergic reactions after ingestion of products containing these materials.

C. Skin and Eye Contact

These products are likely to be eye and skin irritants. Some individuals may develop chemical or allergic dermatitis with prolonged contact, repeated contact, or sensitization to materials in these products. Quaternium compounds, formaldehyde, and essential oils are the most common allergies.

III. Storage and Handling

A. Storage

These products are not likely to result in safety hazards in storage. However, it may be possible to ignite some of these products under special conditions due to their alcohol content. Avoid excessive heat and flame in storage areas.

B. Handling

Use only in well-ventilated areas, away from sources of ignition.

IV. First Aid and Health Protection

A. Use

1. Use only in well-ventilated areas.
2. Avoid eye contact or prolonged or frequent skin contact.

B. First Aid

1. Inhalation

- a. FIRST carry or drag the victim to fresh air.
- b. If the person is not breathing, begin mouth-to-mouth breathing.
- c. THEN call the Poison Center (in some cases, symptoms may be delayed).

2. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

3. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

4. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
- b. THEN call the Poison Center for further instructions.

Chemical Use and Storage Standards for **SHAMPOOS**

CLUSTER A: BARBERING AND HAIRDRESSING

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

- A. Surfactants* (detergents, wetting agents, and emulsifiers).
- B. Water (over 50%)
- C. Perfume (essential oils) (up to 1%)
- D. Coloring (up to 1%)
- E. Preservatives (up to 1%)

May contain:

- A. Chelating agent (EDTA)
- B. Lanolin
- C. Egg powder
- D. Polyols (propyleneglycol, glycerol)
- E. Sodium chloride
- F. Alcohol*
- G. Preservatives (p-hydroxybenzoic)
- H. Anti-dandruff agent (including coalfor derivatives*)
- I. Formaldehyde*
- J. Antibacterials (Hexachloraphene*)
- K. DEA
- L. Sodium stearate
- M. Alkyl sodium sulfates and sulfonates* (sodium lauryl sulfate)
- N. Trisodium phosphates*
- O. Acids*
- P. Sodium hexametaphosphate (Calgon)
- Q. Qaternary ammonium compounds*

II. Health Hazards

A. Inhalation

1. Alcohols and formaldehyde in shampoos may produce vapors which irritate the nose, throat, and respiratory system.
2. Formaldehyde may cause allergic reaction (asthma, nasal congestion).

B. Ingestion

The major active components of shampoos are detergents and soaps. Ingestion in large

amounts may cause nausea, vomiting, and diarrhea. Shampoos may be mildly caustic and irritation of the mouth and esophagus are possible.

C. Skin and Eye Contact

1. Prolonged skin contact with shampoos may cause dermatitis.
2. Eye contact may result in irritation.

III. Storage and Handling

A. Storage

There are no serious storage hazards.

B. Handling

No special safety precautions are needed.

IV. First Aid and Health Protection

A. Use

1. Use in well-ventilated areas, avoiding unnecessary inhalation of vapors.
2. Use rubber gloves if frequently using shampoo.
3. Use shampoos carefully so as to avoid splashing in eyes. Rinse hands or remove gloves before contacting eyes.

B. First Aid

1. Eye Contact

- a. **FIRST FLUSH** the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. **THEN** call the Poison Center immediately after flushing is finished (in some cases there may not be any pain right away, even with a significant injury).

2. Ingestion

- a. **FIRST** drink a glass of plain water or milk unless unconscious, convulsing, or unable to swallow.
- b. **THEN** call the Poison Center for further instructions.

Chemical Use and Storage Standards

for WETTING AGENTS

CLUSTER A: BARBERING AND HAIRDRESSING

I. Typical Chemical Contents

*Starred items are responsible for major toxic effects.

A. Water (over 70%)

B. Conditioners (0-5%)

1. Hydrolyzed animal protein
2. CPP catipeptide
3. Potassium cocohydrolyzed protein

C. pH adjusters (0-5%)

1. Ammonium hydroxide*
2. Ammonium phosphate*
3. Monoethanolamine (MEA)
4. Triethanolamine (TEA)
5. Calcium hydroxide*

D. Bond-breaking agents (0 – 5%)

1. Ammonium thoglycolate*
2. Calcium thoglycolate*

E. Wetting agents and detergents* (2-10%)

1. Acetamide monoethanolamine (MEA)
2. Lauramide DEA
3. Xylenol derivatives
4. Cocamide MEA
5. Stearamide MEA

F. Thickeners

1. Carbomer 941
2. Hydroxyethylcellulose
3. Magnesium aluminum silicate
4. Hydroxypropyl methyl cellulose
5. Emulsifiers and evaporation retarders (0-10%)
 - a. Glyceryl stearate
 - b. Glycerin
 - c. Polyethylene glycol derivatives (PEG)
 - d. Polypropylene glycol derivatives (PPG)
 - e. Stearalkonium Chloride

- f. Oxytol (ethylene glycol monoethyl ether)
- g. Polypropylene glycol (PPG-30) (cetyl ether)
- h. Fragrances (essential oils) (0-2%)
- i. D & C colors (0-1%)

II. Health Hazards

The toxicity of these products is generally low. However, those containing thoglycolates, ammonium hydroxide, ammonium phosphate, calcium hydroxide, and higher concentrations of wetting agents/ detergents may result in some effects.

A. Inhalation

Thoglycolates and ammonium compounds may release noxious vapors and gases which can result in nausea and irritation of the respiratory tract.

B. Ingestion

a. These products are ordinarily pH adjusted, but some irritation and burns to the mouth, throat, and stomach may be possible.

b. Higher concentrations of wetting agents and detergents may result in vomiting, stomach pain, and diarrhea.

C. Skin and Eye Contact

Those products containing thoglycolate bond-breakers may be irritating to the skin and eyes with possible severe irritation and inflammation after eye contact. Detergent and wetting agents present in these products can be expected to cause minor eye irritation, much like shampoos. If the pH of a product is not carefully balanced, the presence of sodium hydroxide, ammonium hydroxide, calcium hydroxide, and ammonium phosphate in the formulation could result in irritation of the skin and eyes.

III. Storage and Handling

A. Storage

These products are not expected to create any special hazards in storage.

B. Handling

There are no known safety hazards in using these products as directed.

IV. First Aid and Health Protection

A. Use

1. Use only in well-ventilated areas.
2. Avoid skin and eye contact (important for products with ammonia or thloglycolates).

B. First Aid

1. Inhalation

- a. FIRST carry or drag the victim to fresh air.
- b. If the person is not breathing, begin mouth-to-mouth breathing.
- c. THEN call the Poison Center (in some cases, symptoms may be delayed).

2. Eye Contact

- a. FIRST FLUSH the eye with a continuous stream of plain, lukewarm water for at least 15 minutes.
- b. THEN call the Poison Center immediately after flushing is finished (in some cases, there may not be any pain right away, even with a significant injury).

3. Skin Contact

- a. FIRST FLUSH the skin with a continuous stream of plain, lukewarm water for 15 minutes.
- b. Remove clothing on which poison has been spilled.
- c. Wash the affected skin with mild soap and water.
- d. THEN call the Poison Center (if there is a burn or break in the skin, or if redness or irritation persists).

4. Ingestion

- a. FIRST drink a glass of plain water or milk unless unconscious, convulsing or unable to swallow.
- b. THEN call the Poison Center for further instructions.