Environment

INFORMATION FROM KODAK

J-315 $10.00

Special Materials Management in Photographic Processing Facilities

The proper use and management of chemicals with physical and health hazards, such as compressed gas and flammable or combustible liquids, is an important part of providing a safe workplace for employees. While a photographic processing facility is typically considered a low hazard workplace, these materials can present hazards to employees if inappropriately handled.

The Occupational Safety and Health Administration (OSHA) presents a framework of federal regulations that governs the use of compressed gas cylinders and flammable or combustible liquids. These regulations are based on the principles that:

- Every employee has a need and a right to know the hazards in their workplace.
- Every employee has a need and a right to be protected from hazards in their workplace.

In addition, OSHA established the Hazard Communication Standard to ensure that employers and employees know about the hazards of chemicals in the workplace.

This publication will cover guidelines for the safe use of compressed nitrogen gas cylinders *only* and the management of flammable or combustible liquids.

Kodak's health, safety, and environmental publications are available to help you manage your photographic processing operations in a safe, environmentally sound and cost-effective manner. This publication is part of a series of publications on health and safety issues affecting photographic processing facilities. It will help you understand the proper use of special materials, such as compressed nitrogen gas and flammable and combustible liquids.

Kodak Environmental Services

This publication is meant to assist others with their compliance programs. However, this is not a comprehensive treatment of the issues. We cannot identify all possible situations and ultimately it is the reader's obligation to decide on the appropriateness of this information to his/her operation.

This information may be used to supplement your hazard communication program (refer to KODAK Publication No. J-311, *Hazard Communication for Photographic Processing Facilities*).

COMPRESSED NITROGEN GAS

Nitrogen is non-toxic and almost totally inert. It is colorless, odorless, tasteless, nonflammable, and will not support combustion.

Nitrogen makes up the major portion of the gas found in the atmosphere by both volume and weight, but by itself is not life supporting.

One major health hazard associated with the use of nitrogen gas is asphyxiation. Hazardous conditions are possible if the nitrogen cylinder contents are released into an insufficiently ventilated area, (i.e. a small room with little or no ventilation). Exposure to oxygen-deficient atmospheres can result in dizziness, nausea, vomiting, loss of consciousness, and death. Death may result from errors in judgment, confusion, or loss of consciousness which prevents self-rescue. At low concentrations, unconsciousness and death may occur within seconds and without warning.

When used properly, nitrogen gas is safe. Your employees should take simple precautions when using compressed nitrogen gas in your facility.

SAFE-HANDLING PRACTICES

It is important that employees know how to properly receive, transport, use, store, and safely handle compressed nitrogen gas cylinders. Your employees should routinely practice the following:

- Upon receipt, *visually inspect* compressed gas cylinders and identify potential hazards
- Know and understand *in-plant transportation, handling, storage, and utilization* procedures for compressed gas cylinders
- Know how to *select, use, and inspect regulator and Compressed Gas Association (CGA) fittings* for compressed gas cylinders
- Participate in the *employee training program and understand the emergency response plan* provided at your facility for employees using compressed gases

PHOTOGRAPHIC PROCESSING FACILITY PRACTICES

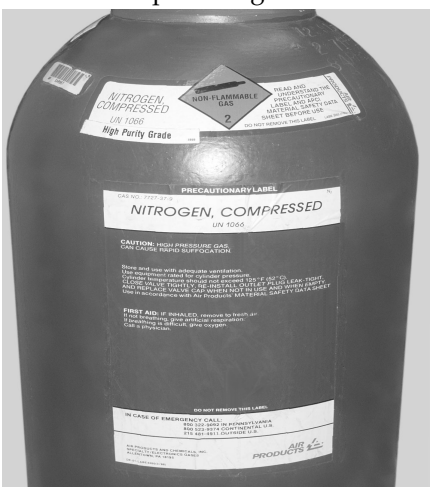
Visual Inspection Upon Receipt

Handlers of compressed gas cylinders should visually inspect cylinders when they arrive at your facility.

The following information will assist you in developing a visual inspection procedure when receiving cylinders at your facility.

Look for:

- *Major cuts, gouges, or digs* which can weaken the cylinder by reducing the thickness of the cylinder wall in those areas.
- *Corrosion* on the surface of the cylinder. Corrosion reduces the structural strength of the cylinder wall by reducing its thickness. Look for corrosion in cuts, gouges, and digs and continuous patterns causing lines of corrosion.
- *Any visible bulges.*
- *Proper identification* of the cylinder contents through the use of stencils or labels. The contents of the cylinder should be clearly marked and labeled or tagged for proper identification. *Do not remove these labels.* Hazard labels have been designed in accordance with United Nations Standards and take the form of a square on point (diamond shape). They utilize colors, symbols, and warning statements to communicate the potential hazard of the compressed gas.



- Proper valve protection; *make sure the cap is securely in place.*

Do not accept the cylinder if any of these conditions have not been met.

4 Review

Develop a cylinder visual inspection procedure for employees to identify potential hazards.

HANDLING, STORING, TRANSPORTING, AND UTILIZATION

Although compressed nitrogen gas is considered a low hazard, accidents could result from mishandling, incorrect storing, and misuse. Employees who use and handle these cylinders should be fully trained.

The following information will help your employees understand the hazards and follow appropriate procedures to minimize hazards associated with the use of compressed nitrogen gas cylinders in your facility.

Handling and Storing

Proper handling and storing techniques for compressed gas cylinders will reduce physical injury in the form of sprains, strains or broken bones. The following will be helpful in providing the employee with information for the proper handling of compressed gas cylinders:

- Acquire and review the Material Safety Data Sheet (MSDS) with employees.

- Check the MSDS for proper Personal Protective Equipment (PPE) recommendations. Safety glasses, safety shoes, and leather work gloves are recommended when handling compressed gas cylinders. Refer to your MSDS for additional PPE requirements if you are using nitrogen gas in a confined space or insufficiently ventilated area where an oxygen-deficient environment can exist.
- Keep the valve protection cap in place until the cylinder has been secured against a wall or bench, or placed in a cylinder stand.
- Store cylinders in a designated area. The area should be kept dry, well ventilated, and preferably fire resistant. Store cylinders in an area where they will not be subjected to temperature or weather extremes or damp ground.

- Do not store or locate cylinders in an area where they may be struck by falling objects. Do not intentionally drop cylinders or permit them to strike one another as the safety devices, valves or cylinders may become damaged and/or cause a life-threatening incident to occur.
- Segregate full and empty cylinders when storing. All empty cylinders should be clearly labeled as *empty*. Close the valve and replace the protective cap on the cylinder after use and when shipping the empty cylinder back to the supplier.
- Do not allow sparks or flames from welding or cutting torches to come into contact with the cylinders. Cylinders should not come into contact with electrical circuits or apparatus.

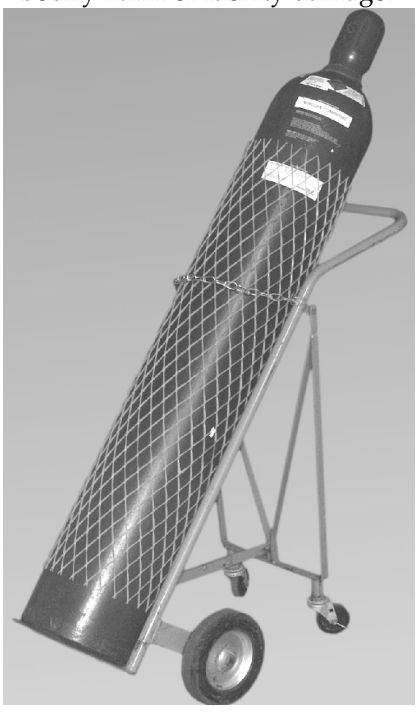
If you have questions concerning the correct handling and storage or the potential hazards associated with compressed nitrogen gas, contact your supplier for information or assistance.

Using Compressed Gas

- Cylinders should not be used as rollers to move material or other equipment as damage may occur to the safety devices, valves or cylinder.
- The valve protection cap should be on the cylinder when it is not in use. Do not alter the safety devices in the valves or the cylinders.
- If the protective cap is difficult to remove, do not apply excessive force or try to pry it open. The cylinder should be tagged, stating the problem, and returned to the cylinder supplier.
- Always open the valve slowly on the nitrogen cylinder.
- It is a U.S. Department of Transportation (DOT) violation for anyone to refill a compressed gas cylinder unless they have ownership and authorization.

Transportation

- Move cylinders using a hand truck or cart designated to be used with compressed gas cylinders. Do not drag or slide cylinders across the floor, even for short distances.
- All compressed gas cylinders *(full or empty)* should be properly fastened and supported by straps, belts, buckles, or chains to prevent them from falling or causing bodily harm or facility damage.



Maintenance

Maintenance of the cylinder, valve, or relief device should be done only by trained personnel under the direction of the cylinder owner or an authorized representative.

Return of Cylinders

- Close the valve tightly and put the valve protection cap in place. Return the cylinders to your supplier with residual gas pressure.

For more information, contact your compressed gas supplier and/or acquire the Compressed Gas Association (CGA) Pamphlet S-1.1, *Pressure Relief Device Standards—Part 1—Cylinders for Compressed Gases.*

4 Review

Employees should be knowledgeable about the proper receipt, handling, storage, transport, use, and return of compressed nitrogen gas cylinders.

PRESSURE REGULATORS AND VALVE OUTLET CONNECTIONS

Only use pressure relief devices designed for use with nitrogen cylinders. Never force valve or regulator connections because the threads and valves are configured differently for each type of gas. This prevents inadvertent mixing of incompatible gases.

Pressure Regulators

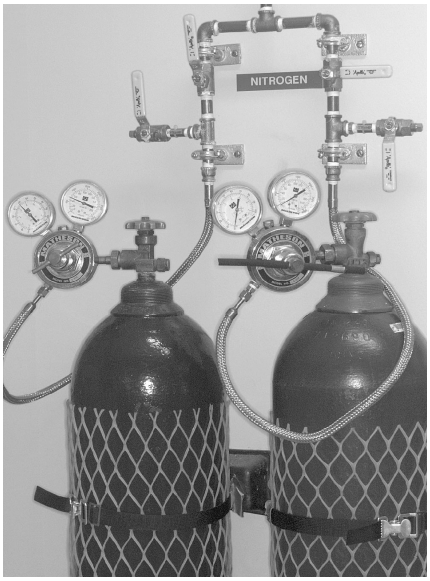
Proper pressure regulating devices must be used where gas is introduced into a system of a lower pressure rating then the supply pressure. Do not rely on the system pressure relief device to protect your lower pressure system. (The system pressure rating may be exceeded due to the gas capacity of the supply source; therefore, a pressure regulator is required.)

Caution: *A hazardous condition exists where the release of a high pressure gas, from a cylinder, is not reduced to system service levels for controlling the gas flow. When withdrawing the contents of a gas cylinder, a pressure reducing regulating device should be used to allow for delivery of a constant safe working pressure.*

Connections for cylinder valve outlet and inlet connections, and pressure regulator connections, have been standardized to prevent the incorrect use of compressed gases. Users of compressed gases should not tamper or replace connections supplied by an authorized supplier.

- Inspect the pressure regulating devices, pressure relief devices, valves, cylinder connections, and hoseline at frequent intervals to ensure that they are undamaged. *Do not* use the compressed gas cylinder or devices if they appear to be damaged. Contact your supplier for instructions on the proper disposition of the cylinder if it appears to be damaged.
- Open the cylinder valve slowly, keeping the valve outlet pointed away from the user or other employees.

Caution: *Make sure the cylinder valve is closed prior to removing the pressure regulator.*



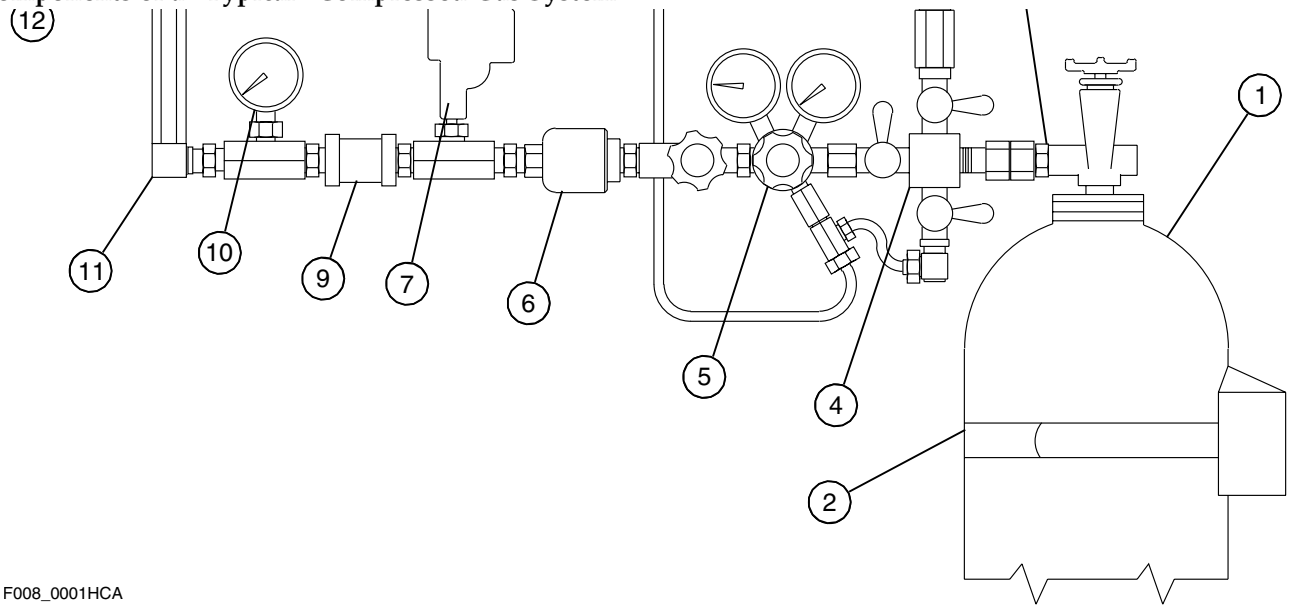
Valve Outlet Connections

- Examine the threads on the cylinder valve outlet and regulators at frequent intervals to ensure that they are undamaged. The regulator threads must match those on the cylinder valve outlet.

Caution: *Do not attempt to force connections that do not fit.*

Contact your gas supplier for information on the correct CGA connections regarding nitrogen compressed gas cylinders. Information may also be found in the CGA V-1 publication, *"American National, Canadian, and Compressed Gas Association Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections."*

Components of a "Typical" Compressed Gas System



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1. Gas Supply Cylinder—for very hazardous gases, the cylinder may be placed in a hood, a gas cabinet, or in an area remote from the point of use, with piping to transfer the gas to the beginning of the system.
2. Cylinder Restraining Device—may be belt or chain clamped to a wall or bench, or an appropriate cylinder stand.
3. CGA Connection—helps to prevent interchanging equipment for incompatible gases. Always use the correct connection; do not use adaptors.
4. Cross Purge System—use clean, inert gas to remove air, moisture, and toxic or corrosive gases from the system prior to introduction of the gas to be used, and to cleanse the system following main gas usage.
5. Automatic Pressure Regulator—reduces cylinder pressure to a lower and safe relatively constant delivery pressure and the outlet valve of the regulator adjusts flow to the desired flow rate.
6. Flash Arrestor—For flammable gases, prevents damaging flashback (combustion within pipes, regulators, etc.) and reverse flow.
7. Pressure-Relief Devices—prevents exposure of system components to excessive pressure; should be incorporated wherever there is a possibility of over-pressure line blockage.
8. Venting—when using flammable, toxic, or corrosive gases, they should be vented to appropriate scrubbers, collectors, or secondary reaction equipment to prevent inappropriate direct release to the atmosphere.
9. Filter—traps particulate contaminants in systems where high purity is required, such as in semi-conductor manufacture and other high purity applications.
10. Pressure Gauge—indicates pressure of the system.
11. Flowmeter—monitors flow rate.
12. Check valve.

4 Review

Use regulators and valves designed specifically for use with compressed nitrogen gas.

Leaks and Emergencies

- If you suspect a leak, evacuate employees and ventilate the area. Do not enter the area where you suspect a leak has occurred unless you are equipped with and properly trained to use a self-contained breathing apparatus or air line.
- Immediately contact your emergency response personnel.

4 Review

Employees must be properly trained in the event of a leak or emergency situation involving the use of compressed nitrogen gas.

Employee Training Program and Emergency Response Plan

Your health and safety program should address the use of compressed nitrogen gas in your operations. It should be included in your Hazard Communication Program and emergency response plan.

Employees should receive training on the use and handling of compressed nitrogen gas prior to their initial assignment. Retraining should be conducted if employees assume new job responsibilities. Refer to KODAK Publication No. J-311, *Hazard Communication for Photographic Processing Facilities.*

Some sources of information that can assist you in the development of an employee training program or emergency response plan for your facility are:

- Your current compressed gas supplier. They may provide you with health and safety information through education or audiovisual programs.
- The CGA can provide technical information and pamphlets that will assist you with your training program or emergency response program needs. You may contact them at (703) 412-0900 or write to: Compressed Gas Association, 1725 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4100
- The American Chemical Society (ACS) has prepared safety video courses: Compressed Gases: Safe Handling Procedures (Catalog No. V680K) and Compressed Gases: Compressed Hazards (Catalog No. V690K). For additional information, contact the ACS at 1-800-227-5558.

4 Review

Incorporate training on compressed nitrogen gas into your hazard communication program and emergency response plans for your facility.

Review Process

- Review state and local requirements to define additional requirements when receiving, handling, storing, transporting, or using compressed nitrogen gas cylinders.
- Incorporate training on compressed nitrogen gas into your hazard communication training programs and emergency response plans. Ensure that all employees using compressed gas cylinders are trained on the hazards, potential health affects, and precautions.
- Review employee tasks to determine training needs.
- Establish operating procedures for the receipt, handling, storage, transport, and use of compressed nitrogen gas cylinders.

SELF-ASSESSMENT CHECKLIST

The following checklist is provided as a guide to photographic processing facilities in assessing and identifying areas for improvement.

	Yes	No
• The photographic processing facility has operating procedures for receiving, handling, storing, transporting, and using compressed gas cylinders.		
• Training on compressed nitrogen gas has been incorporated into your Hazard Communication training and has been provided to all employees who use compressed nitrogen gas.		
• All cylinders are properly labeled.		
• The tasks involving compressed nitrogen gas have been covered in the hazard assessment required for PPE.		
• State of local compressed gas requirements, if any, have been implemented at your facility.		

FLAMMABLE AND COMBUSTIBLE LIQUIDS

Flammable and combustible liquids may be used in photographic processing facilities. Incidental use (i.e. not your primary business*) of acetic acid, acetone, film cleaners, and isopropanol, are just a few examples of flammable and combustible liquids commonly found in a photographic processing facility. It is important to be aware of the hazards associated with the handling, storage, and use of these materials in your facility.

**Facilities that use flammable or combustible liquids as an integral part of their primary business (not considered incidental) will have additional OSHA requirements, i.e. printing facilities.*

Flammable and combustible liquids do not "cause" fires; they are contributing factors. A spark or some other ignition source causes a fire or explosion in the presence of the right concentration of flammable vapors.

Flammable and combustible liquids can be defined as:

- *Flammable liquids* are any liquid having a flashpoint below 100×F (37.8×C), except mixtures made up to 99% or more of the total volume, with components having flashpoints of 100°F (37.8×C) or higher. These are classified as Class I liquids.
- A *combustible liquid* is any liquid having a flashpoint at or above 100×F. These are classified as Class II and III liquids.

Refer to *Sections 3 and 9* in your MSDS to determine if your material is designated as a flammable or combustible liquid.

Note: The classification of a liquid can change due to contamination.

Both flammable and combustible liquids are subdivided as follows.

Table 1. Flammable Liquids

Flammable Class	Liquid Characteristics
Class IA	Fp below 73×F (22.8×C) & Bp below 100×F (37.8×C)
Class IB	Fp below 73×F (22.8×C) & Bp at or above 100×F (37.8×C)
Class IC	Fp at or above 73×F (22.8×C) & Bp below 100×F (37.8×C)

Fp = Flashpoint Bp = Boiling point

Table 2. Combustible Liquids

Flammable Class	Liquid Characteristics
Class II	Fp at or above 100×F (37.8C) & Bp below 140×F (60×C)
Class III	Fp at or above 140×F (60×C)
Class IIIA	Fp at or above 140×F (60×C) & Bp below 200×F (93.3×C)
Class IIIB	Fp at or above 200×F (93.3×C)

Note: *Photographic processing facilities which incorporate spray booths as part of their operations must follow specific OSHA requirements (29 CFR 1910.107) regarding the use of flammable and combustible liquids. Spray booth operations are not covered within the scope of this publication.*

OVERVIEW OF REQUIREMENTS

To assist your facility in the incidental handling, storage, and use of flammable and combustible liquids, you must:

- Contact your insurance carrier for assistance.
- Know the proper *type of container and amounts of flammable and combustible liquids* that can be stored or used in-plant.
- Know the proper *separation distances and personnel and physical protection for transferring* flammable and combustible liquids from one container to another.
- Know the *correct handling* procedure for flammable and combustible liquids at the *point of final use.*
- Follow grounding and bonding practices when transferring from one metal container to another.
- Know the proper *Personal Protective Equipment (PPE) requirements* when handling flammable and combustible liquids. For related information, refer to KODAK Publication No. J-312, *Personal Protective Equipment for Photographic Processing Facilities.*

4 Review

This section covers the management of flammable and combustible liquids where their use and handling are incidental to the photographic processing business.

PHOTOGRAPHIC PROCESSING FACILITY IN-PLANT HANDLING AND STORAGE

Always try to maintain only small inventories of flammable and combustible liquids on-site. Store in properly closed containers, and minimize the exposure of the liquid to air while using. These are fundamental safety measures you can follow.

A safe workplace requires that your employees know when flammable and combustible liquids are in use. All liquid processing operations must be identified by means of labels and a MSDS for the chemical product must be located in the workplace. You must also perform a fire or explosion hazards assessment of your facility's daily operations.

Specific handling and storage requirements depend on the inherent risk in the operations themselves, including the flammable and combustible liquids being used, operating temperatures

and pressures, and your capability to control any liquid or vapor releases or fire incidents that might occur. Proper engineering and management practices must be established to address the physical and operating requirements of your facility.

Employees who handle flammable and combustible liquids in-plant must be instructed to always store them in closed containers.

Keep to a minimum the quantity of flammable or combustible liquids located outside of fire resistant *storage cabinets,* inside a storage room or fire resistant storage cabinet, in a building, or in a *fire area* of a building. The allowable quantities cannot exceed the greater of: a) the quantity in either a supply for one day, or b) the sum of the amounts of liquids shown in Table 3.

Note: *Fire resistant* ***storage cabinets*** *are cabinets used to store flammable and combustible materials, and are designed and constructed according to the standards found in Standard Methods of Fire Tests of Building Construction and Materials, NFPA 251-1969..*

A ***fire area*** *is an area of a building separated from the remainder of the building by construction having a fire resistance of at least one hour and having all communication openings properly protected by an assembly having a fire resistance of at least one hour.*

Table 3. Allowable Storage Quantities for Flammable and Combustible Liquids

Flammable or Combustible Class	Quantity of Liquid
Class IA	25 gallons in containers
Class IB, IC, II or III	120 gallons in containers

Transferring Flammable and Combustible Liquids

Class I and Class II liquids shall only be drawn from or transferred into vessels, containers, or portable tanks in the following manner:

- From the *original shipping containers* with a capacity of 5 gallons (18 litres) or less; or
- From *approved safety cans*;
- Through a *closed piping system*;
- By *gravity through a listed* self-closing valve or self-closing faucet;
- *Using only listed or approved hose* for the transfer operation, equipped with a self-closing valve without a hold-open latch in addition to the outlet valve.

Transferring of flammable or combustible liquids by means of air pressure is prohibited.

Sources of ignition are not permitted in areas where flammable vapors may travel. You must conduct all transfer operations in a properly ventilated area.

4 Review

Employees shall use proper storage containers and associated equipment for the transfer of flammable and combustible liquids.

SEPARATION AND PROTECTION

The transfer of flammable or combustible liquids from one container to another should be located in an area separated from other operations that are potential electrostatic ignition sources. This area should also have adequate fire control measures available. Adequate natural or mechanical ventilation must also be provided, and drainage or spills must be controlled.

Fire Control

You may contact your insurance provider to conduct an assessment of potential fire hazards and identify fire protection control and systems. This evaluation includes the following:

- Hazards of current operations.
- Flammable and combustible liquids being used.
- Layout of the plant and equipment.
- Material handling and transfer requirements.
- The presence of unusual conditions.
- Available fire protection sprinkler systems and any other protective systems necessary to provide protection to your employees.

For more information, refer to KODAK Publication No. J-316, *Emergency Preparedness for Photographic Processing Facilities.*

Drainage and Spill Control

You may need to consider providing adequate emergency drainage to direct flammable or combustible liquids or contaminated liquids or contaminated fire protection water to a safe location. This will prevent the spread of fire to a sewer or public waterway. This may be accomplished by:

- Use of *approved secondary containment* while storing or transferring liquids to prevent spills.
- Use of *spill clean-up (kits)* in the event of a spill, appropriate for the type of liquids used in your facility to prevent them from spreading or entering drains.

Bonding and Grounding

To minimize the possibility of a vapor ignition hazard, proper grounding is required to prevent an electrostatic discharge during the storage and transfer of flammable or combustible liquids. You can accomplish this by:

- Proper grounding of secondary containment and storage cans.
- Use of an approved metallic secondary containment tray and solvent storage can.

Ventilation

You must properly and adequately ventilate vapors from flammable or combustible liquids. The vapors should be ventilated either by natural or mechanical means. The vapor exhaust or discharge should be ventilated to a safe location outside of the building, without recirculation.*

**Prior to venting any exhaust to the outside air, consult the appropriate regulatory agencies concerning any permit requirements for your local area.*

4 Review

If employees transfer flammable or combustible liquids, they must be in an area *separated from ignition sources*, *handle spills* properly, provide *fire control*, proper *grounding with metal*, and *adequate ventilation.*

HANDLING FLAMMABLE AND COMBUSTIBLE LIQUIDS AT POINT OF FINAL USE

Proper handling of flammable or combustible liquids will help to ensure a safe working environment at your facility. The following is required when using or handling these liquids:

- Keep flammable or combustible liquids in *covered containers* when not in use.
- *Safely and properly dispose of* residues from spills or leaks that occur during the use or handling of flammable and combustible liquids.

4 Review

Keep flammable or combustible liquids in a covered container when not being used or handled. All residues from spills must be promptly cleaned up and disposed. When transferring liquids from one container to another, use proper procedures and keep flammable or combustible liquids and vapors from sources of ignition.

HOUSEKEEPING

Keep aisles well maintained and free of obstructions. Personnel movement must not be restricted and emergency response equipment must not be hampered by aisle obstruction.

Combustible wastes and residues in a building or operating area must be kept to a minimum, stored in a covered metal receptacle, and properly disposed daily (i.e. cleaning rags or wipes). Rags, cardboard, and paper should be restricted from areas where flammable and combustible liquids are kept.

4 Review

Employees *using or handling* flammable or combustible liquids must work in an area where their *movement is unrestricted* and *easily accessible* in the event that fire protection equipment is necessary. Any flammable wastes or residues should be kept to a *minimum*, placed in a covered *metal receptacle*, and properly *disposed of daily*.

Employee Training Program

We recommend that you develop a training program and an emergency response plan for your facility. For additional information, see KODAK Publication No. J-316, *Emergency Preparedness for Photographic Processing Facilities.*

Training should be provided for each employee to a level that is appropriate to their involvement with flammable and combustible liquids. Employees should receive training prior to their initial assignment. Periodic retraining is not required but an annual refresher is recommended.

Emergency Response Plan

You should have a written emergency response plan for your facility. Fire safety should be everyone's responsibility and can be achieved through training of employees and planning emergency operating procedures.

The following should be considered when you develop your plan.

- Fire characteristics, in particular the flashpoint, which is the basis for the classifications of the liquids in Tables 1 and 2.
- Sources of ignition near an area where flammable and combustible liquids are being used, stored, or handled.
- Injury to persons or property in the event of an incident.

The following sources of information may assist in the development of an employee training program or emergency response plan for your facility:

- OSHA's Standard on Employee Emergency Action Plans, 29 CFR Part 1910.38(a).
- The Flammable and Combustible Liquids Code, NFPA 30, available through the National Fire Protection Association (NFPA).
- KODAK Publication No. J-316, *Emergency Preparedness for Photographic Processing Facilities.*

4 Review

Develop **training and emergency response plans** for your facility.

Recordkeeping Process

Recordkeeping is not required but we recommend that an employer document the training that each employee has received.

- Review state and local requirements to define additional requirements when handling, storing, or using flammable and combustible liquids.
- Develop or review existing employee training programs and emergency response plans.
- Review employee job tasks to determine training needs.
- Ensure that all employees handling, storing, and using flammable and combustible liquids are trained.
- Periodically review training programs for needed changes.
- Document training records (recommended).

SELF-ASSESSMENT CHECKLIST

The following checklist is provided as a guide to photographic processing facilities in assessing and identifying areas for improvement.

	Yes	No
• Training has been given to employees whose jobs require the handling, storage, and use of flammable and combustible liquids that meet the requirements outlined in this publication.		
• A MSDS is available for all flammable and combustible liquids at your facility.		
• All flammable and combustible liquids are properly stored.		
• Training is given to all employees prior to initial assignment, when hazards in the workplace change, or when reassigned to an area with new hazards.		
• State of local flammable or combustible liquids requirements, if any, have been implemented at your facility.		

REGULATORY AND ASSOCIATED REFERENCES

Subject	Source
American Chemical Society Safety Video Courses	Safe Handling Procedures (V680K) and Compressed Hazards (V690K)
Hazardous Materials (Compressed Gases)	49 CFR 171-179 14 CFR 103
Hazardous Materials (Compressed Gases)	49 CFR 171-179 14 CFR 103
Compressed Gas Cylinders	29 CFR 1910.101
Compressed Gas Association, Inc. (CGA)	Pamphlets C-6, C-8, P-1, S-1.1, S-1.2, and V-1
Handbook of Compressed Gases	CGA, Third Edition, Copyright 1990
Hazardous Materials Subpart H (Flammable and Combustible Liquids)	OSHA 29 CFR 1910.106
National Fire Protection Association, Flammable and Combustible Liquids Code	ANSI/NFPA 30, August 20 1993
National Fire Protection Association, Standard Methods of Fire Tests of Building Construction and Materials	NFPA 251-1969
National Fire Protection Association, Fire Protection Handbook	Sixteenth Edition
Emergency Preparedness and Response	29 CFR 1910.38
Spray Finishing Using Flammable and Combustible Materials	29 CFR 1910.107

MORE INFORMATION

If you have environmental or safety questions about Kodak products or services, contact Kodak Environmental Services at 716-47--3194, between 8 a.m. and 5 p.m. (Eastern time).

Kodak also maintains a 24-hour health hotline to answer questions about the safe handling of photographic chemicals. If you need health-related information about Kodak products, call 716-722-5151.

For questions concerning the safe transportation of Kodak products, call Kodak Transportation Services at 1-716-722-2400.

Additional information is available on the Kodak website and through the U.S.A./Canada faxback systems.

The products and services described in this publication may not be available in all countries. In countries other than the U.S., contact your local Kodak representative, or your usual supplier of Kodak products.

The following publications are available from Kodak Customer Service or from dealers who sell Kodak products.

J-110	*Formaldehyde Use in Photographic Processing Facilities*
J-111	Determining Workplace Exposure to Formaldehyde
J-112	*Formaldehyde Emergencies*
J-113	*About the OSHA Formaldehyde Standard*
J-311	*Hazard Communication for Photographic Processing Facilities*
J-312	*Personal Protective Equipment Requirements for Photographic Processing Facilities*
J-313	*Occupational Noise Exposure Requirements for Photographic Processing Facilities*
J-316	*Emergency Preparedness for Photographic Processing Facilities*
J-317	*Injury and Illness Management for Photographic Processing Facilities*

Kodak
Environmental
Services

For more information about Kodak Environmental Services,
visit Kodak on-line at:
www.kodak.com/go/kes

Many technical support publications for
Kodak products can be sent to your fax machine
from the Kodak Information Center. Call:
U.S. 1-800-242-2424, Ext. 33 / Canada 1-800-295-5531
—Available 24 hours a day, 7 days a week—

If you have questions about Kodak products, call Kodak.
In the U.S.A.:
1-800-242-2424, Ext. 19, Monday–Friday
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