

ACA Industry Labeling Guide, Sixth Edition



AmericanCoatings
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ADHESIVE, SEALANT AND REPAIR PRODUCTS

Introduction

Adhesive, sealant and repair products are subject to labeling requirements that apply to the paint and coatings industry and formulated products in general. Labeling for adhesives, sealants and repair products may require some variations from standard practices for paints and coatings due to state/local regulations and industry trade practices that address unique properties, hazards and applications. This chapter only highlights those chemicals and properties that are unique to adhesive, sealant and repair products and should be used only to clarify and supplement the other chapters of this guide.

This chapter alone will not provide complete guidance for the labeling of these product types. Each manufacturer or marketer has the ultimate responsibility of conveying to the end user, a fair and adequate warning/notice as to the known hazardous properties associated with the handling, use and/or foreseeable misuse of their products.

This chapter addresses three main categories of products: adhesives, sealants and repair products (such as glazing, grout, mortar, joint compound, plaster of Paris, putty and spackle). Although these products are formulated using many of the same chemicals and possess many of the same hazard potentials as coatings, there are some distinctive differences. The following are characteristics unique to adhesive, sealant and repair products:

- **Delivery systems** – extrusion from a cartridge in bead form; troweled from a can over large surface area; atomized spray application.
- **Intended usage** – bonding of two substrates; as sealant or filler for windows, doors, bathroom or kitchen fixtures, cracks or holes in preparation for painting.
- **Packaging/containers** – primarily cartridges or tubes; cans with standard friction lids; plastic pails; heavy weight paper bags.
- **Physical consistency** – overall, a thicker consistency than that of paints/coatings; raw product is flexible/can be tooled; paste or powder form, etc.

Procedure for Use and Regulatory Requirements

Note: Please refer to Chapter 1 for a detailed description of the label development process.

After following the steps outlined in Chapter 1 and reviewing the basic label format, you may need to consider the supplemental information provided in this chapter to develop a precautionary label which reflects the potential hazards of the ingredient(s) in your caulk, sealant, adhesive and/or repair product(s). The label must then be modified to address hazards associated with use or foreseeable misuse of the finished product.

The final label may differ from one based solely on the hazards associated with the individual ingredients. Additional statements may be necessary to conform to industry practices and comply with federal, state, and local laws and regulations. Some statements may be deleted if conditions for use indicate that a potential hazard associated with a component is unlikely to manifest during use. The conventional labeling practices for industrial products (Chapter 2), consumer products (Chapter 3) and product-specific labeling considerations (Chapter 4) will assist in developing labels for adhesives, sealants and repair products. Other chapters of this guide also provide important information that will aid you in the label development process.

The federal regulations that address labeling for adhesives and sealants are listed below:

- A. [16 CFR Part 1302](#) – Ban of Extremely Flammable Contact Adhesives
- B. [16 CFR Part 1500.14, section 8](#) – The Labeling of Hazardous Art Materials Act, adopting ASTM D-426
- C. [16 CFR Part 1500.83\(a\)](#), paragraphs 10, 13, 34 and 37
- D. [40 CFR Part 59](#), National Volatile Organic Compound Emission Standards for Consumer Products
- E. [FTC Guidelines](#). ACA has also developed a related guidance document available on the [ACA Member Center website](#) under the section Regulatory Support Documents. The *ACA guidance document is called FTC Labeling Requirement for Health and Environmental Marketing Claims and Certifications*, covering VOC labeling requirements.

Another relevant resource is:

American National Standards Institute (ANSI) Z129.1-2000 – Hazardous Industrial Chemicals- Precautionary Labeling, available through the ANSI website at: <https://webstore.ansi.org/standards/acc/ansiz1292000>.

Regulations accommodate small packages of glues with a cyanoacrylate base that are too small to list all required information on the main label panel. Requirements are specified at [16 CFR Part 1500.83\(a\)\(37\)](#), also listed above. Glues with a cyanoacrylate base in packages of 3 grams or less are exempt from the requirement of 16 CFR 1500.121(d) that labeling permitted to appear elsewhere than on the main label panel must be in type size no smaller than 6-point type, provided the label complies with the following qualifying elements:

- The main display panel includes proper signal word and a statement of the principal hazard or hazards associated with this product.
- The main display panel includes a statement to carefully read additional warning included elsewhere and these warnings comply with requirements of 16 CFR 1500.121.
- The remainder of the cautionary labeling required by the act that is not on the main label panel must appear elsewhere on the label in legible type and must appear on any outer package, accompanying leaflet, display card or tag. Any additional cautionary labeling must comply with requirements of 16 CFR 1500.121(d).

Label Statements

Chapter 2, *Label Statements for Industrial Products*, Table 2, contains a list of common chemicals used to formulate products, as well as suggested or appropriate label statements for these chemicals. Chapter 4, *Product Specific Labeling Considerations*, offers detailed information on many product-specific considerations that may be applicable to adhesive, sealant and repair products. Some additional product specific considerations include:

1. Flammable and Extremely Flammable Viscous Adhesives

When conducting a hazard evaluation of a flammable or extremely flammable adhesive, it is important to consider the method of delivery in conjunction with flammability characteristics (i.e., flash point and boiling point). For example, the two most common delivery methods for this type of product are 1) from a cartridge or tube in a bead form; or 2) from a conventional container (i.e., standard friction lid steel can) and troweled over a large area.

The risks associated with vapor generation (i.e., inhalation and explosion/fire potential) may be dependent upon method of application. The basic concept behind this difference in actual risk relates to the surface area of adhesive exposed for solvent evaporation. Therefore, it may be important, when conducting the hazard evaluation, to measure vapor concentration in order to characterize and warn of potential hazards.

2. Hot-Melt Adhesive

Hot-melt adhesives deserve special attention because they are unique in their chemistry, method of application and hazards. A hot-melt adhesive is a resinous adhesive which achieves a solid state and resultant strength by cooling, whereas other adhesives may achieve the same results through evaporation or removal of the solvents. A hot-melt adhesive is extruded using a special applicator that heats the solid material to a temperature in the range of 350-400°F, thus converting the material to a fluid state. The hazards of hot-melt adhesives are a combination of physical hazards and health hazards. The physical hazard is the molten material that will cause physical burns. The health hazard is possible irritation to eyes and respiratory system due to the release of decomposition products given off during the heating process.

Sample Labels

Included here are several sample labels of products discussed in this supplement for which unique labeling characteristics exist. These sample labels are intended to be examples only. For complete label development on a specific product, federal, state and municipal laws, regulations and ordinances may require additional statements. International requirements should also be considered where appropriate (see Chapter 6). These sample labels are product specific and were created using the information in Tables 1 through 5 in Chapter 2, as well as the supplemental information in this chapter.

Sample Label 1 – Latex Caulk/Sealant

For latex caulking/sealant products regardless of viscosity, containing **less than** 10 percent ethylene glycol or diethylene glycol and no harmful amounts of other hazardous ingredients.¹ If the product to be labeled has ingredients that contribute hazards either other than or in addition to those shown, label statements to cover those hazards must be added to, or substituted for, the statements shown on this label.

For a two-panel label, split here and add: "Read carefully other cautions on the back/side panel."
[16 CFR 1500.121(a)(3)]

CAUTION!

Contains: (names of specific ingredients that contribute to the product's hazard.)²

KEEP OUT OF REACH OF CHILDREN.

Company name and address

¹ If ethylene glycol concentration is 10 percent or greater, refer to Table 1 for required statements.

² Remove this statement if the product does not contain any hazardous ingredients.

Sample Label 2 – Oxime-Based Silane Silicone Sealant

For silicone sealant products with health effects from **oxime silanes**. If the product to be labeled has ingredients that contribute hazards either other than or in addition to those shown, label statements to cover those hazards must be added to, or substituted for, the statements shown on this label.

For a two-panel label, split here
and add: "Read carefully other
cautions on the back/side panel."
[16 CFR 1 500.121(a)(3)]

WARNING!

MAY CAUSE ALLERGIC SKIN REACTION.

VAPOR HARMFUL

Contains: Oxime-based silane. Overexposure may cause blood and liver damage. May cause drowsiness. Causes eye, skin, nose and throat irritation. Avoid prolonged or repeated contact with skin. When using wear impermeable protective gloves. Avoid contact with eyes. Wear goggles or protective glasses with side shields. Wash thoroughly after handling. Avoid breathing vapors. **Use only with adequate ventilation.** Open windows and doors or use other means to ensure fresh air entry during application and curing.

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. (Destroy contaminated shoes.)* (Thoroughly clean contaminated shoes.)* If affected by inhalation of vapor, remove to fresh air.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

* Select most appropriate statement.

Sample Label 3 – Acetoxy-Based Silane Silicone Sealant

For silicone sealant products with health effects from **acetoxy silanes**. If the product to be labeled has ingredients that contribute hazards either other than or in addition to those shown, label statements to cover those hazards must be added to, or substituted for, the statements shown on this label.

WARNING!

CAUSES EYE, SKIN, NOSE, AND THROAT IRRITATION.

Contains: Acetoxy silane-based siloxanes. Forms acetic acid during curing and on contact with moisture. Avoid contact with eyes, skin and clothing. Gloves are recommended for prolonged or repeated contact with skin. Wear goggles or protective glasses with side shields. Wash thoroughly after handling. Avoid breathing vapors. **Use only with adequate ventilation.** Open windows and doors or use other means to ensure fresh air entry during application and curing.

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. (Destroy contaminated shoes.)* (Thoroughly clean contaminated shoes.)* If affected by inhalation of vapor, remove to fresh air.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

* Select most appropriate statement.

Sample Label 4 – Extremely Flammable/High Viscosity Cartridge Adhesive

For cartridge adhesive products with a principal hazard of a flash point at **or below 20°F, viscosity above 100 SUS at 100°F**, and other health hazard effects from inhalation of solvent vapor (statements 26, 5, 30) and skin/eye contact (statements 14, 16). Also refer to Table 4, “Product Specific Labeling Considerations” in Chapter 2.

For a two-panel label, split here
and add: “Read carefully other
cautions on the back/side panel.”
[16 CFR 1500.121(a)(3)]

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR.

VAPORS MAY CAUSE FLASH FIRE.

HARMFUL OR FATAL IF SWALLOWED

Contains: (name of specific ingredients that contribute to the product’s hazard.) Harmful if inhaled. May affect the central nervous system causing dizziness, headache or nausea. Causes eye, skin, nose and throat irritation. NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Vapors may ignite explosively. Keep away from heat, sparks and flame. Do not smoke. Vapors may spread long distances. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Avoid breathing vapors. **Use only with adequate ventilation.** Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Avoid contact with eyes and skin. Wear appropriate gloves to prevent skin contact. Wear goggles or protective glasses with side shields. Wash thoroughly after handling.

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. If affected by inhalation of vapor, remove to fresh air. If swallowed, get medical attention immediately.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

Sample Label 5 – Hot-Melt Adhesive

For hot-melt adhesives which present hazards that include physical burns from molten material and health effects from decomposition products that react during the heating process. If the product to be labeled has ingredients that contribute hazards either other than or in addition to those shown, label statements to cover those hazards must be added to, or substituted for, the statements shown on this label.

For a two-panel label, split here and add: "Read carefully other cautions on the back/side panel."
[16 CFR 1500.121(a)(3)]

CAUTION!

CONTACT WITH HOT ADHESIVE AND APPLICATOR
TIP WILL CAUSE BURNS. VAPOR MAY CAUSE EYE
AND RESPIRATORY TRACT IRRITATION.

Contains: (name of specific ingredients that contribute to the product's hazard.)

Avoid contact with hot adhesive and applicator/gun tip. Avoid prolonged breathing of vapor from hot adhesive. Use only with adequate ventilation to prevent vapor build-up.

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Do not attempt to remove adhesive. If affected by inhalation of vapor, remove to fresh air. If swallowed, do not induce vomiting. Get medical attention immediately.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

Sample Label 6 – Plaster-Based Repair Products

For dry, repair products (i.e., plaster of Paris) that are plaster based with health effects from **calcium sulfate**. If the product to be labeled has ingredients that contribute hazards either other than or in addition to those shown, label statements to cover those hazards must be added to, or substituted for, the statements shown on this label.

For a two-panel label, split here and add: "Read carefully other cautions on the back/side panel."
[16 CFR 1500.121(a)(3)]

WARNING!

CAUSES SKIN BURNS.

Contains: Calcium sulfate alpha-hemihydrate. When mixed with water this material hardens and then slowly becomes hot. **DO NOT** attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions may cause severe burns that may require surgical removal of affected tissues. When mixing or dry sanding, dust may cause irritation to eyes, nose, throat or upper respiratory system.

Close container after each use. Avoid exposure to dust by wearing an appropriate NIOSH approved particulate respirator. Avoid contact with eyes and skin. When using wear impermeable protective gloves. Wear goggles or protective glasses with side shields. Do not ingest.

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. If affected by inhalation, remove to fresh air. If swallowed, get medical attention immediately.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

¹ **Note:** Regular plaster of Paris is a nuisance dust and does not irritate eyes or skin. This contains calcium sulfate beta-hemihydrate. Although curing releases heat, use has not been associated with skin burns. Calcium sulfate alpha-hemihydrate is a denser form whose use has been associated with skin burns secondary to heat production.

Sample Label 7 – Dry/Ready-to-Use Repair Products

For dry or wet (rtu) repair products (i.e., spackling, joint compound) whose intended use is for patching, repairing, or finishing cracks, holes or joints in interior/exterior surfaces and have the potential to be dry sanded. The primary health hazard with this type of product is the potential for exposure to dust particles. If the product to be labeled has ingredients that contribute hazards either other than or in addition to those shown, label statements to cover those hazards must be added to, or substituted for, the statements shown on this label.

For a two-panel label, split here
and add: "Read carefully other
cautions on the back/side panel."
[16 CFR 1500.121(a)(3)]

CAUTION!

Contains: (name of specific ingredients that contribute to the product's hazard.)

Exposure to dust may cause build up of material in eyes, ears, nose and mouth. Prolonged inhalation of excessive amounts of dust may have adverse pulmonary and respiratory effects. When mixing or dry sanding, dust may cause irritation to eyes, nose, throat or upper respiratory system.

Use only with adequate ventilation. Provide fresh air ventilation during and after application. Close container after each use. Avoid exposure to dust by wearing an appropriate NIOSH approved particulate respirator. Avoid contact with eyes and skin. Wear appropriate gloves to prevent skin contact. Wear goggles or protective glasses with side shields.

First Aid: In case of eye contact, flush immediately with plenty of water for at least 15 minutes. In case of contact, immediately flush skin with soap and plenty of water. If inhaled, remove to fresh air. If swallowed, do not induce vomiting. Get medical attention immediately.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

Sample Label 8 – for Isocyanate or Polyisocyanate Adhesives and Sealants

This label sample is for **isocyanate or polyisocyanate adhesives and sealants** containing 100 percent solids and either polymerized or monomeric toluene diisocyanate (TDI), hexamethylene diisocyanate (HDI), isophorone diisocyanate (IPDI) or diphenylmethane diisocyanate (MDI). If the product to be labeled has ingredients that contribute hazards either other than, or in addition to those shown for the solids and the diisocyanates listed, label statements to cover those hazards must be added to, or substituted for, the statements shown here.

WARNING!

OVEREXPOSURE MAY CAUSE LUNG DAMAGE.

MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION.

MAY CAUSE EYE, SKIN, NOSE AND THROAT IRRITATION.

Contains: (specify isocyanate or polyisocyanate)

INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. Do not breath vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH approved) during application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (NIOSH approved) is recommended. A vapor/particulate respirator (NIOSH approved) may be appropriate where airborne monitoring demonstrates vapor levels below ten times the applicable exposure limits. Follow respirator manufacturer's directions for respirator use.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed when not in use. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.²

First Aid: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. (Destroy contaminated shoes.)* (Thoroughly clean contaminated shoes.)* If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

KEEP OUT OF REACH OF CHILDREN.

Company name and address

Labeling Requirements under VOC Content Regulations

Air quality regulations exist at both the federal and state levels and may affect the formulation of products discussed in this chapter. The purpose of these regulations is to ensure the reduction of VOC emissions from caulks, sealants and adhesive products. Regulations limiting VOC content of consumer and industrial adhesives and sealants exist at the federal, state and local levels. It is the responsibility of the manufacturer to obtain the most up-to-date information from the appropriate federal and state agencies in order to ensure compliance. For a list of federal, state, and local adhesive and sealant regulations, please visit the “Member Area” of the ACA website at <https://www.paint.org/aca-member-center/corporate-member-center/>. **After logging in to the site, members can access information under the section marked, “VOC Regulatory Resources.”** Additional information is also available in this guide in *Chapter 7: Labeling for Emissions from Volatile Organic Compounds: Federal, State and Local Requirements*.

At the federal level, both EPA regulations and FTC guidance can affect labeling for VOC content and related emissions. Relevant regulations and guidance are listed below:

- [40 CFR Part 59](#), National Volatile Organic Compound Emission Standards for Consumer Products
- [FTC Guidelines](#). ACA has also developed a related guidance document available on the [ACA Member Center website](#) under the section *Regulatory Support Documents*. The ACA guidance document is called *FTC Labeling Requirement for Health and Environmental Marketing Claims and Certifications, covering VOC labeling requirements*.

State-level labeling rules for VOC content of consumer products generally apply to adhesives and sealants. Adhesive and sealant manufacturers must review state-level requirements where the product will be placed on the market to generate compliant labels. Requirements may vary depending on the type of adhesive and sealant product and container size. State and local regulations with labeling provisions for adhesives and sealants are discussed below:

- A. Regulation for Reducing Volatile Organic Compound Emissions from Consumer Products in California, 17 CCR Sections 94507 – 94515.
- B. Several states have adopted consumer products rules, including Maryland, Pennsylvania, Delaware, District of Columbia, New York, New Jersey, Maine, etc. These state consumer product rules are very similar as they are based upon the Ozone Transport Commission’s Model Rule (which was based upon the California Consumer Products Rule). Please see other parts of Chapter 7 of this guidance regarding labeling for VOC content for additional information.

Adhesive and sealant rules which regulate products greater than 16 ounces in size, except for aerosol adhesives, exist in almost all of the 25 air districts within the State of California. Additional information about types of adhesive and sealant products regulated at the air district level versus state level is available online for Rule 1168. Rule 1168 in the South Coast Air Quality Management District is the most comprehensive of the air district rules. Rule 1168 is available online.

California’s General Requirements for Labeling Aerosol Adhesives and Contact Adhesives

California’s Air Resources Board’s (CARB) Consumer Product Rules, at 17 CCR §94512(d)(1)(D)), provides an example of a state-level VOC content labeling requirement for adhesive and sealant products. Under 17 CCR §94512(d)(1)(D)), the following information must be clearly displayed on each product container:

- a. The product category or an abbreviation for the product category;
- b. The applicable VOC standard for the product;
- c. If the product is a special purpose spray adhesive, the applicable substrate and/or an abbreviation of the applicable substrate that qualifies the product as a special purpose;
- d. The day, month, and year on which the product was manufactured or a code indicating such date.

Please note that the above information should be displayed on the product container so that it is readily observable without removing or disassembling any portion of the product container or packaging. This information may be displayed on the bottom of the container, so long as it is clearly legible without removing any product packaging. In addition, if abbreviations are used, an explanation of the abbreviation must be filed with the Executive Officer of the California Air Resources Board before the abbreviation is used.

Compliance with the “Most Restrictive Limit” Requirements

Under the consumer products rules in California and the Ozone Transport Commission (OTC) states, and in the industrial adhesives rules in the California air districts, there are limitations on the usage claims that can be made on the principal display panel, on the container or packaging and in some circumstances, even stickers or labels affixed to the container or packaging. Generally, claims regarding the usage or performance characteristics of the product must be consistent with the product category as required by the governing air quality regulation (see the above requirement to clearly display the product category on the product container).

Currently, the California consumer products rule and the air district rules for industrial adhesives indicate that if anywhere on the principal display panel, any representation is made that the product may be used as or is suitable for use as another product with a lower VOC limit, then the lower VOC content limit will apply. Essentially, the regulation will reclassify your product and put it in a lower VOC category if there are usage claims consistent with a lower VOC content limit product category. This requirement applies to any representation made on the principal display panel and anywhere on the container or packaging, including stickers or labels affixed onto the container or packaging.

In the OTC states that have adopted the model Consumer Products rule, the “most restrictive limit” provision relates solely to the principal display panel. This is also true for the industrial adhesives rules in the California air districts.