



## For a Safe Start, Check the Chart!

## Get the full and most up to date PackSafe chart at www.faa.gov/packsafe.

Some of the items airline passengers pack in their luggage may be considered dangerous goods, also known as hazardous materials. Most dangerous goods are forbidden in carry-on and checked baggage. There are a few exceptions for some personal items such as toiletries, medicines, and assistive devices. Check the chart below to see which common dangerous goods are allowed in checked and/or carry-on baggage on your flight and which are not. Remember, this is just a listing of common dangerous goods; if you don't see your item here it doesn't mean it's allowed in baggage. When in doubt, leave it out!

| Item  | Examples  | lmage | Carry On | Carry On Details  | Checked | Checked Details  |
|---|---|-------|----------|---|---------|--|
| Baggage Equipped with<br>Lithium Batteries          | Smart Bags, Location Trackers<br>in Baggage   |       |          | Baggage equipped with lithium batteries must be carried<br>as carry-on baggage unless the batteries are removed<br>from the baggage. Removed batteries must be carried in<br>accordance with the provision for Batteries, Lithium   |         | Smart bags can be checked once the battery is removed.<br>Baggage location tracking devices (or "bag tags") powered by<br>lithium batteries are allowed in checked bags if devices do not<br>exceed 0.3 grams (lithium metal) or 2.7 watt hours (Lithium).   |
| Batteries, Lithium                                  | Power Banks, cell phone<br>battery charging cases,<br>rechargeable and non-<br>rechargeable lithium batteries,<br>cell phone batteries, laptop<br>batteries, power banks,<br>external batteries, portable<br>rechargers |       | ~        | Lithium metal (non-rechargeable) batteries are limited to<br>2 grams of lithium per battery. Lithium ion (rechargeable)<br>batteries are limited to a rating of 100 watt hours (Wh) per<br>battery. With airline approval, passengers may also carry<br>up to two spare larger lithium ion batteries (101–160 Wh) or<br>Lithium metal batteries (2-8 grams).  | ×       | Not allowed in Checked Bags  |
| Electronic Cigarettes,<br>Vaping Devices            | Battery-powered E-cigarettes<br>(e-cigs), vaporizers, vape pens,<br>atomizers, electronic nicotine<br>delivery systems  | 17    | ~        | Electronic smoking devices when carried by passengers<br>or crewmembers must be carried on one's person or in<br>carry-on baggage. Electronic smoking devices are battery<br>powered and have a heating element that vaporizes liquid.<br>Passengers are required to take effective measures for<br>preventing accidental activation of the heating element of<br>the device when transporting the devices.   | ×       | Not allowed in Checked Bags  |
| Items not Otherwise Listed<br>on the PackSafe Chart | Anything that includes<br>powders, chemicals, liquids,<br>gases, or aerosols  | ?     |          | The first step would be to get a Safety Data Sheet (SDS) for each product. In the SDS, section 14, you can find the transportation information (i.e. if the product is a regulated dangerous good). On passenger aircraft regulated dangerous goods are not allowed by passengers. There are some exceptions for passengers and crew members which we highlight on our PackSafe website. That product would not be addressed in any of the exceptions, which means that if it is a regulated product, it would not be allowed in either checked or carry-on baggage. If they are not regulated, then they would be allowed. |         | The first step would be to get a Safety Data Sheet (SDS) for each<br>product. In the SDS, section 14, you can find the transportation<br>information (i.e. if the product is a regulated dangerous<br>good). On passenger aircraft regulated dangerous goods are<br>not allowed by passengers. There are some exceptions for<br>passengers and crew members which we highlight on our<br>PackSafe website. That product would not be addressed in any<br>of the exceptions, which means that if it is a regulated product, it<br>would not be allowed in either checked or carry-on baggage. If<br>they are not regulated, then they would be allowed. |





| Item  | Examples  | Image | Carry On | Carry On Details  | Checked      | Checked Details   |
|---|---|-------|----------|---|--------------|---|
| Medical & Toiletry Articles                             | Hairspray, hand sanitizers,<br>aerosols, rubbing alcohol,<br>inhalers, nail polish and<br>remover, etc.   |       | ~        | If it does not touch your body when you use it, then it<br>likely does not qualify for the medicinal & toiletry article<br>exception. Not all carry-on items may be used during flight.<br>Consult the flight crew before using items that give off<br>strong odors or vapors such as nail polish and remover.<br>Liquids, gels, and aerosols in carry-on baggage are further<br>limited to 100-ml (3.4 oz) containers at the TSA security<br>checkpoint.                                       | ~            | Quantity limits: The total aggregate quantity per person cannot<br>exceed 2 kg (70 ounces) or 2 L (68 fluid ounces). The capacity of<br>each container must not exceed 0.5 kg (18 ounces) or 500 ml (17<br>fluid ounces).   |
| Portable Electronic<br>Devices, Containing<br>Batteries | Cell phones, cell phone<br>battery charging cases,<br>laptops, cameras, smart<br>phones, electronics, data<br>loggers, PDAs containing<br>lithium batteries, games,<br>tablets, watches, etc. |       | ~        | Devices containing lithium metal or lithium ion batteries<br>(laptops, smartphones, tablets, etc.) should be carried in<br>carry-on baggage. Flight crews are trained to recognize<br>and respond to lithium battery fires in the cabin.<br>Passengers should notify flight crew immediately if<br>their lithium battery or device is overheating, expanding,<br>smoking or burning.  |              | When portable electronic devices powered by lithium batteries<br>are in checked baggage, they must be completely powered off<br>and protected to prevent unintentional activation or damage.<br>Electronic devices capable of generating extreme heat, heating<br>elements must be isolated which could cause a fire if activated,<br>by removal of the heating element, battery or other components.   |
| Adhesives, Flammable                                    | Rubber cement, pipe cement,<br>some super glues and other<br>flammable adhesives  |       | ×        | Most model glues, rubber cements, and industrial-strength<br>adhesives are flammable and not allowed in carry-on or<br>checked baggage.   | X            | Most model glues, rubber cements, and industrial-strength adhesives are flammable and not allowed in carry-on or checked baggage.   |
| Adhesives. Nonflammable                                 | School glue, glue sticks, etc.  | 23    | ~        | Nonflammable, non-toxic adhesive/glue is not restricted as a hazardous material.  | $\checkmark$ | Nonflammable, non-toxic adhesive/glue is not restricted as a hazardous material.  |
| Aerosols, Flammable                                     | Non-toiletry, WD-40, spray<br>paint, spray starch, cooking<br>spray, etc.   |       | ×        | Flammable aerosols that don't qualify as a medicinal or toiletry article are forbidden in carry-on and checked baggage.   | ×            | Flammable aerosols that don't qualify as a medicinal or toiletry article are forbidden in carry-on and checked baggage.   |
| Aerosols, Nonflammable                                  | Nonflammable aerosols (with<br>no other hazard), non-toiletry,<br>some electronics cleaners,<br>whipped cream   |       | ~        | Nonflammable aerosols (hazard class 2.2 with no other<br>hazard subrisks) that do not qualify for the medicinal/<br>toiletry article exception may be carried in carry-on and<br>checked baggage. Aerosol release devices (button/nozzle)<br>must be protected with a cap or other means to protect<br>against accidental release. The release of gas must also<br>not cause extreme annoyance or discomfort to crew<br>members so as to prevent the correct performance of<br>assigned duties. | ~            | Nonflammable aerosols (hazard class 2.2 with no other hazard<br>subrisks) that do not qualify for the medicinal/toiletry article<br>exception may be carried in carry-on and checked baggage.<br>Aerosol release devices (button/nozzle) must be protected with<br>a cap or other means to protect against accidental release.<br>The release of gas must also not cause extreme annoyance<br>or discomfort to crew members so as to prevent the correct<br>performance of assigned duties. |
| Air Tanks, Pressurized                                  | To include Scuba and SCBA   |       | X        | Not allowed in Carry On or Checked Bags if pressurized  | X            | Not allowed in Carry On or Checked Bags if pressurized  |





| Item  | Examples   | Image    | Carry On | Carry On Details  | Checked | Checked Details  |
|---|--|----------|----------|---|---------|--|
| Alcoholic Beverages under<br>140 Proof        | In unopened retail packaging,<br>containing more than 24% but<br>not more than 70% alcohol by<br>volume (up to 140 proof)  |          | ~        | Must be in unopened retail packagings. Liquids, gels, and<br>aerosols in carry-on baggage are further limited to 100-ml<br>(3.4 oz) containers at the TSA security checkpoint.  | ~       | Must be in unopened retail packagings. Quantity limits: 5 L (1.3 gallons) per packaging and 5 L total per passenger.   |
| Alcoholic Beverages over<br>140 Proof         | Greater than 70% alcohol by<br>volume (more than 140 proof),<br>including grain alcohol and 151<br>proof rum   |          | X        | Not allowed in Carry On or Checked Bags   | ×       | Not allowed in Carry On or Checked Bags  |
| Ammunition                                    | Cartridges up to 19.1mm,<br>shotgun shells   |          | ×        | Not allowed in Carry On Bags  | ~       | Ammunition must be securely packed in boxes or other devices<br>specifically designed to carry small amounts of ammunition.<br>Ammunition clips and magazines must also be securely boxed<br>so no ammunition is loose or exposed. Loaded firearms are<br>forbidden.   |
| Animal Spray, Repellent                       | Bear spray, animal repellent   | <b>A</b> | ×        | Not allowed in Carry On or Checked Bags   | X       | Not allowed in Carry On or Checked Bags  |
| Avalanche Rescue<br>Backpacks, Self-Inflating | Models that contain a small<br>explosive charge (squib) to<br>release the cylinder contents  | (A)      | ×        | Not allowed in Carry On or Checked Bags. For models that<br>only contain compressed air or compressed nonflammable<br>gases (e.g., argon or $CO_2$ ) in cartridges/cylinders, see the<br>entry for Self-Inflating Personal Safety Devices (intended<br>to be worn by a person). For models that contain Li-<br>batteries, see PackSafe battery guidance for conditions<br>and limitations. Other dry cell batteries (e.g., alkaline, nickel<br>metal hydride, nickel cadmium) are not restricted.                                     | ×       | Not allowed in Carry On or Checked Bags. For models that only contain compressed air or compressed nonflammable gases (e.g., argon or CO <sub>2</sub> ) in cartridges/cylinders, see the entry for Self-Inflating Personal Safety Devices (intended to be worn by a person). For models that contain Li-batteries, see PackSafe battery guidance for conditions and limitations. Other dry cell batteries (e.g., alkaline, nickel metal hydride, nickel cadmium) a not restricted.   |
| Batteries, Dry Cell                           | This covers typical non-lithium<br>dry batteries (alkaline,<br>nickel metal hydride, nickel<br>cadmium, etc.) in the most<br>common sizes: AA, AAA, C, D,<br>button cell, 9-volt, etc. | <b>1</b> | ~        | Battery terminals (usually the ends) must be protected<br>from short circuit (i.e., the terminals must not come in<br>contact with other metal). Methods include: leaving<br>the batteries in their retail packaging, covering battery<br>terminals with non-metallic tape, using a battery case,<br>using a battery sleeve/pocket in a camera bag, or putting<br>them snugly in a plastic bag or protective pouch. Leaving<br>rechargeable batteries in the charging (wall) unit is not<br>considered protecting from short circuit. | ~       | Battery terminals (usually the ends) must be protected from<br>short circuit (i.e., the terminals must not come in contact with<br>other metal). Methods include: leaving the batteries in their reta<br>packaging, covering battery terminals with non-metallic tape,<br>using a battery case, using a battery sleeve/pocket in a camera<br>bag, or putting them snugly in a plastic bag or protective pouch<br>Leaving rechargeable batteries in the charging (wall) unit is no<br>considered protecting from short circuit. |
| Batteries, Wet, Nonspillable                  | Small gel cell and absorbed<br>electrolyte batteries for<br>portable electronics   |          | ~        | This entry is for nonspillable batteries with absorbed<br>electrolyte (gel cell, absorbed glass mat, etc.) used in<br>portable electronic devices. It does not cover large vehicle<br>batteries. For battery-powered wheelchairs and mobility<br>devices, see separate entry in this table. Spare/uninstalled<br>batteries must be in strong packaging. Battery and outer<br>packaging must be marked "nonspillable" or "nonspillable<br>batterv."  | ~       | This entry is for nonspillable batteries with absorbed electrolytic<br>(gel cell, absorbed glass mat, etc.) used in portable electronic<br>devices. It does not cover large vehicle batteries. For battery-<br>powered wheelchairs and mobility devices, see separate entry<br>in this table. Spare/uninstalled batteries must be in strong<br>packaging. Battery and outer packaging must be marked<br>"nonspillable" or "nonspillable battery."  |



| Item  | Examples  | Image | Carry On | Carry On Details  | Checked | Checked Details   |
|---|---|-------|----------|---|---------|---|
| Battery Powered Heat<br>Producing Devices                       | Diving lamps, soldering<br>equipment  | 7     |          | These are allowed in checked and carry-on baggage, with<br>airline approval, when a component (battery, fuse, heat<br>element) is isolated to prevent unintentional activation<br>and generation of heat during transport. If the battery has<br>been completely removed then the device is not restricted<br>as a hazardous material. However, if carrying the battery<br>separately, it must be carried in accordance with the<br>provisions for batteries in this chart. |         | These are allowed in checked and carry-on baggage, with<br>airline approval, when a component (battery, fuse, heat element)<br>is isolated to prevent unintentional activation and generation<br>of heat during transport. If the battery has been completely<br>removed then the device is not restricted as a hazardous<br>material. However, if carrying the battery separately, it must be<br>carried in accordance with the provisions for batteries in this<br>chart. |
| Camping Stoves and Fuel<br>Bottles Completely Purged<br>of Fuel | Camping stoves and<br>equipment that contains no<br>residual fuel   |       |          | Camping stoves and equipment that contain no residual<br>fuel, vapors, or other hazardous materials are allowed.<br>Some airlines may not accept used camping equipment<br>that has had fuel in it regardless of how well it has been<br>purged. Check your airline's policy.   |         | Camping stoves and equipment that contain no residual fuel,<br>vapors, or other hazardous materials are allowed. Some airlines<br>may not accept used camping equipment that has had fuel in it<br>regardless of how well it has been purged. Check your airline's<br>policy.   |
| Chemical Kits Containing<br>Hazardous Materials                 | Water test kits, soil test kits,<br>children's chemistry sets, etc.<br>when containing hazardous<br>materials | -     | ×        | The safety data sheets (SDS) of each individual chemical<br>in the kit must be examined to know if it is a hazardous<br>material. Section 14 of the SDS should identify if a<br>chemical/substance is a regulated hazardous materials for<br>transportation purposes.   | ×       | The safety data sheets (SDS) of each individual chemical in<br>the kit must be examined to know if it is a hazardous material.<br>Section 14 of the SDS should identify if a chemical/substance is a<br>regulated hazardous materials for transportation purposes.  |
| Curling Iron, Cordless  | Cordless curling iron<br>containing a gas cartridge,<br>butane fueled curling irons                           |       | ~        | A safety cover must be securely fitted over the heating<br>element. The device must be protected from accidental<br>activation. Gas refills (spare cartridges) are not permitted.<br>Electric curling irons and hair straighteners (cord plugs<br>into an electric outlet) are not restricted.  | X       | Not allowed in Checked Bags   |
| Drones, Unmanned Aircraft<br>Systems (UAS)                      | Primary and spare batteries,<br>fuel cells, components of<br>certain parachute systems                        | -     |          | Your drone might be a dangerous good! Lithium<br>batteries, fuel cells, and components of certain parachute<br>systems can all be classified as dangerous goods. If you<br>have any questions, please consult your operating manual<br>or contact the manufacturer and airline prior to traveling.  |         | Your drone might be a dangerous good! Lithium batteries, fuel cells, and components of certain parachute systems can all be classified as dangerous goods. If you have any questions, please consult your operating manual or contact the manufacturer and airline prior to traveling.  |
| Dry Ice   | Carbon dioxide, solid, 2.5 kg<br>(5.5 lbs) or less, when used to<br>pack perishables                          |       |          | Airline approval is required. Packages must NOT be air tight and must allow the release of carbon dioxide gas.  |         | Airline approval is required. Packages must NOT be air tight and<br>must allow the release of carbon dioxide gas. When in checked<br>baggage, the package must be marked "Dry ice" or "Carbon<br>dioxide, solid" and marked with the net quantity of dry ice, or an<br>indication that it is 2.5 kg (5.5 lbs) or less.  |
| Duty Free Perfume and<br>Cologne                                | Perfumes and colognes<br>purchased through airport and<br>airline duty free shops                             | 1     | ~        | Because these are typically purchased at the airport or<br>even on the aircraft, the quantity restrictions for toiletry<br>articles do not apply here when purchased through Duty<br>Free and carried on your person or in carry on baggage.<br>However, quantities are generally regulated by customs/<br>duty when  |         | For perfumes and cologne in checked baggage or not purchased<br>through duty-free sales, see the entry for Medicinal and Toiletry<br>Articles.  |

duty rules.

BackSafe faa.gov/packsafe





| ltem  | Examples   | Image | Carry On | Carry On Details   | Checked      | Checked Details  |
|---|--|-------|----------|--|--------------|--|
| Engine Powered Equipment<br>Completely Purged of Fuel                   | Chainsaws, generators,<br>trimmers, etc.   |       | ×        | This entry is for engines that have been completely purged of all liquid or gaseous fuel, including residue and vapors.  |              | Even if completely purged, some airlines may refuse to allow<br>engine powered equipment in baggage if it has ever contained<br>fuel.  |
| Engine Powered Equipment with Residual Fuel                             | Chainsaws, generators,<br>trimmers, etc.   |       | ×        | Not allowed in Carry On or Checked Bags  | X            | Not allowed in Carry On or Checked Bags  |
| Fireworks   | Firecrackers, bottle rockets,<br>poppers, sparklers, M-80s, fire<br>crackers, Roman candles                  |       | ×        | All fireworks, no matter how small, are forbidden in carry-<br>on and checked baggage.   | X            | All fireworks, no matter how small, are forbidden in carry-on and checked baggage.   |
| Flammable Fuels and<br>Liquids  | Including containers and equipment with residual fuel  |       | ×        | Not allowed in Carry On or Checked Bags  | ×            | Not allowed in Carry On or Checked Bags  |
| Formaldehyde Solutions<br>Less Than 10 Percent                          |  |       | ~        | Formaldehyde solutions of less than 10% are not restricted<br>as hazardous materials. Leakproof packaging with<br>absorbent material is still strongly encouraged.   | $\checkmark$ | Formaldehyde solutions of less than 10% are not restricted<br>as hazardous materials. Leakproof packaging with absorbent<br>material is still strongly encouraged.   |
| Fuel Cells Containing<br>Flammable Gases or Water-<br>Reactive Material |  |       | ~        | Each fuel cell must also be marked "Approved for carriage<br>in aircraft cabin only". Each fuel cell cartridge (not the<br>electronic device) must be marked with the maximum<br>quantity and type of fuel in the cartridge. | ×            | Not allowed in Checked Bags  |
| Fuel Cells Containing<br>Flammable Liquid or<br>Corrosive Material      |  |       | ~        | Each fuel cell must also be marked "Approved for carriage<br>in aircraft cabin only". Each fuel cell cartridge (not the<br>electronic device) must be marked with the maximum<br>quantity and type of fuel in the cartridge. | $\checkmark$ | Each fuel cell must also be marked "Approved for carriage in<br>aircraft cabin only". Each fuel cell cartridge (not the electronic<br>device) must be marked with the maximum quantity and type of<br>fuel in the cartridge. |
| Hand Warmers, Toe<br>Warmers, Body Warmers                              | Disposable warming pads<br>using carbon, charcoal, and<br>iron compounds, Hot Hands,<br>Little Hotties, etc. |       | ~        | These air-activated body-warming pads are not regulated<br>as hazardous materials for transportation and may be<br>carried in carry-on or checked baggage.   | $\checkmark$ | These air-activated body-warming pads are not regulated as<br>hazardous materials for transportation and may be carried in<br>carry-on or checked baggage.   |
| Instant Ice Packs (Using<br>Ammonium Nitrate)                           | Instant/rapid ice packs that<br>are activated by force—when<br>used for medical/first aid<br>purposes.       |       | ~        | These items are allowed in carry-on or checked baggage<br>when carried for medical purposes such as the treatment<br>of sporting injuries.   | ~            | These items are allowed in carry-on or checked baggage when carried for medical purposes such as the treatment of sporting injuries.   |





| Item   | Examples  | Image    | Carry On     | Carry On Details   | Checked      | Checked Details  |
|--|---|----------|--------------|--|--------------|--|
| Lighters   | Unabsorbed liquid (desk/<br>table lighters, antique wick<br>lighters), absorbed liquids,<br>butane (Zippo-type lighters,<br>disposable lighters)                  | 14       |              | Absorbed liquid and butane lighters are limited to one<br>lighter per passenger in carry-on or on one's person. When<br>a carry-on bag is checked at the gate or at planeside, any<br>lighter in the carry-on must be removed from the bag and<br>kept with the passenger in the aircraft cabin. | ×            | Not allowed in Checked Bags  |
| Liquid Nitrogen in a Dry<br>Shipper  |   |          | $\checkmark$ | A dry shipper is an insulated cryogenic flask/container<br>that contains refrigerated liquid nitrogen absorbed into a<br>porous lining. It is used to transport specimens.   | $\checkmark$ | A dry shipper is an insulated cryogenic flask/container that<br>contains refrigerated liquid nitrogen absorbed into a porous<br>lining. It is used to transport specimens. |
| Lithium Battery Powered<br>Lighters  | Tesla coil lighters, flux lighters,<br>arc lighters, double arc lighters  |          | $\checkmark$ | Each lithium ion battery must not exceed a watt hour (Wh) rating of 100 Wh; or for lithium metal batteries, a lithium content of 2 grams.  | ×            | Not allowed in Checked Bags  |
| Magnets  | Items which create a magnetic field, fishing magnets  | i.       |              | A magnetic field of more than 0.00525 gauss measured at 4.5 m (15 feet) from any surface of the package or magnet cannot fly.  |              | A magnetic field of more than 0.00525 gauss measured at 4.5 m<br>(15 feet) from any surface of the package or magnet cannot fly.   |
| Matches (Safety)   | Safety matches, waterproof matches  | <b>~</b> | ~            | One book/packet of matches in carry-on or on the person. When a carry-on bag is checked at the gate or at planeside, any matches in the carry-on must be removed from the bag and kept with the passenger in the aircraft cabin.   | ×            | Not allowed in Checked Bags  |
| Matches, Strike-Anywhere   |   |          | X            | Strike-anywhere matches are forbidden in carry-on and checked baggage.   | X            | Strike-anywhere matches are forbidden in carry-on and checked baggage.   |
| Medical Devices<br>Containing Radioactive<br>Material, Implanted,<br>Ingested, Injected, or Fitted<br>Externally as a Result of a<br>Medical Treatment | Heart pacemakers that<br>contain radioactive materials<br>or lithium batteries and<br>radiopharmaceuticals that<br>have been ingested, injected,<br>or implanted. |          | ~            | For medical devices containing lithium batteries that are<br>implanted or externally fitted, or carried by passengers and<br>crew, the quantity limits for Portable Electronic Devices,<br>Containing Batteries apply.   | ×            | Not allowed in Checked Bags  |
| Medical-Clinical Mercury<br>Thermometer  | Small medical thermometer   |          | X            | Not allowed in Carry On Bags   | $\checkmark$ | One small medical or clinical mercury thermometer for personal use, when carried in a protective case in checked baggage.  |
| Mercury Barometer or<br>Thermometer  | Carried by government<br>weather bureau or similar<br>official agency.  |          | $\checkmark$ | Must be in carry-on baggage only.  | X            | Not allowed in Checked Bags  |





| ltem  | Examples   | Image      | Carry On     | Carry On Details   | Checked      | Checked Details   |
|---|--|------------|--------------|--|--------------|---|
| Mosquito, Insect Repellent  |  |            | ~            | Included in, not in addition to, the quantity limits for other<br>medicinal and toiletry articles: The total aggregate quantity<br>per person cannot exceed 2 kg (70 ounces) or 2 L (68 fluid<br>ounces). The capacity of each container must not exceed<br>0.5 kg (18 ounces) or 500 ml (17 fluid ounces). Aerosols<br>in carry-on baggage are further limited to 100-ml (3.4 oz)<br>containers at the TSA security checkpoint. | ~            | Included in, not in addition to, the quantity limits for other<br>medicinal and toiletry articles: The total aggregate quantity per<br>person cannot exceed 2 kg (70 ounces) or 2 L (68 fluid ounces).<br>The capacity of each container must not exceed 0.5 kg (18<br>ounces) or 500 ml (17 fluid ounces). |
| Non-Infectious Specimens<br>in Preservative Solutions                     | Containing formaldehyde,<br>ethanol, isopropanol, or other<br>alcohols                                 |            | ~            | No more than 30 ml of free liquid solution in each inner<br>packaging and no more than one liter in the entire outer<br>package. The outer package is suitable marked "Scientific<br>research specimens, 49 CFR 173.4b applies."   | $\checkmark$ | No more than 30 ml of free liquid solution in each inner<br>packaging and no more than one liter in the entire outer<br>package. The outer package is suitable marked "Scientific<br>research specimens, 49 CFR 173.4b applies."  |
| Oils, Nonflammable, Non-<br>Aerosol                                       | Motor oil, engine oil, 3-in-1 oil,<br>baby oil, mineral oil, body oil,<br>olive oil, most cooking oils |            | ~            | Liquids in carry-on baggage are further limited to 100-ml<br>(3.4 oz) containers at the TSA security checkpoint.   | $\checkmark$ | Not regulated in liquid form.   |
| Oxygen (compressed or<br>liquid)  | Medical oxygen, recreational oxygen  | Î          | ×            | Passengers may not carry their own oxygen (compressed<br>oxygen or liquid oxygen) in carry-on baggage, in checked<br>baggage or on their person. Products such as "canned<br>oxygen," "recreational oxygen" and "flavored oxygen" are<br>also prohibited.  | X            | Passengers may not carry their own oxygen (compressed oxygen<br>or liquid oxygen) in carry-on baggage, in checked baggage or<br>on their person. Products such as "canned oxygen," "recreational<br>oxygen" and "flavored oxygen" are also prohibited.  |
| Paints and Solvents,<br>Flammable   | Thinners, turpentine, MEK,<br>denatured alcohol, acetone,<br>resins, lacquers, varnishes,<br>stains    | <b>R</b> 🛃 | ×            | Most paints and paint-related solvents are regulated as flammable liquids and are forbidden in carry-on or checked baggage.  | ×            | Most paints and paint-related solvents are regulated as flammable liquids and are forbidden in carry-on or checked baggage.   |
| Paints and Solvents,<br>Nonflammable                                      | Watercolors, acrylics,<br>pigments and most artist oil<br>paints                                       |            | $\checkmark$ | Artist paints that are nonflammable are not regulated by FAA and may be carried in carry-on* or checked baggage.   | $\checkmark$ | Artist paints that are nonflammable are not regulated by FAA and may be carried in carry-on* or checked baggage.  |
| Permeation Devices for<br>Calibrating Air Quality<br>Monitoring Equipment |  |            | ×            | Not allowed in Carry On Bags   | ~            | The total quantity of hazardous materials in the device is limited<br>to 2 ml (0.07 ounces). The device and its packaging cannot weigh<br>more than 30 kg (66 pounds). The device must be constructed<br>and packaged in accordance with the requirements found in 49<br>CFR 173.175                        |
| Portable Oxygen<br>Concentrators (POCs)                                   | Inogen One, Sequal Eclipse,<br>Airsep Lifestyle and others<br>approved by FAA                          |            | ~            | Portable oxygen concentrators (POCs) do not actually contain or generate oxygen, they concentrate it from the ambient air.   | $\checkmark$ | Portable oxygen concentrators (POCs) do not actually contain or generate oxygen, they concentrate it from the ambient air.  |





| Item   | Examples  | Image | Carry On | Carry On Details  | Checked      | Checked Details  |
|--|---|-------|----------|---|--------------|--|
| Portable Recreational<br>Vehicles Powered by<br>Lithium Ion Batteries          | Hover boards, self-balancing<br>scooters, unicycle scooters,<br>etc.            |       |          | Under U.S. and international regulations, these devices may<br>be carried like other portable electronic devices in checked<br>or carry-on baggage. Airline approval is required for any<br>lithium ion battery exceeding 100 watt hours (Wh).* The<br>airline may choose to not accept the devices at all or may<br>limit them to carry-on baggage. A device with a lithium ion<br>battery that exceeds 160 watt hours (Wh) is prohibited as<br>carry-on or checked baggage. |              | Under U.S. and international regulations, these devices may<br>be carried like other portable electronic devices in checked or<br>carry-on baggage. Airline approval is required for any lithium ion<br>battery exceeding 100 watt hours (Wh).* The airline may choose<br>to not accept the devices at all or may limit them to carry-on<br>baggage. A device with a lithium ion battery that exceeds 160<br>watt hours (Wh) is prohibited as carry-on or checked baggage. |
| Self Defense Spray   | Mace, pepper spray not<br>exceeding 118 ml (4 fluid<br>ounces)                  |       | ×        | Not allowed in Carry On Bags  | $\checkmark$ | One self defense spray, not exceeding 118 ml (4 fluid ounces), per<br>passenger in checked baggage only.   |
| Self-Inflating Personal<br>Safety Devices (intended to<br>be worn by a person) | Inflatable life jackets, safety<br>vests, motorcycle vests, riding<br>vests     | 1     | ~        | No more than two self-inflating personal safety devices,<br>fitted with no more than two small gas cartridges per<br>device (containing no hazardous material other than a<br>Division 2.2 gas) for inflation purposes plus no more than<br>two spare cartridges per device.  | ~            | No more than two self-inflating personal safety devices,<br>fitted with no more than two small gas cartridges per device<br>(containing no hazardous material other than a Division 2.2 gas)<br>for inflation purposes plus no more than two spare cartridges<br>per device.   |
| Signal Flares and Road<br>Flares   |   |       | X        | Flares and other similar flammable/explosive products are forbidden in carry-on and checked baggage.  | X            | Flares and other similar flammable/explosive products are forbidden in carry-on and checked baggage.   |
| Small Compressed Gas<br>Cylinders and Cartridges in<br>or with a Device        | Carbon dioxide (CO2) and other nonflammable, nontoxic gases                     | iĥ    | ×        | Not allowed in Carry On Bags  | ~            | Up to four cartridges/cylinders containing nonflammable gas<br>may be carried. Each cylinder must not exceed 50 ml (equivalent<br>to 28 g carbon dioxide cartridge). Cartridges/cylinders not<br>installed in the device should be securely packed. Compressed<br>gas cylinders, canisters, and cartridges with a volume larger<br>than 50 ml are forbidden in baggage unless covered by another<br>exception in this table.   |
| Small Compressed Gas<br>Cylinders for Mechanical<br>Limbs                      |   | ſ V   | ~        | Cylinders/cartridges containing nonflammable, nontoxic<br>gases may be worn in mechanical limbs and spare<br>cylinders/cartridges may be carried in carry-on or checked<br>baggage. A sufficient number of cylinders/cartridges to<br>ensure an adequate supply for the duration of the journey<br>is authorized.   | ~            | Cylinders/cartridges containing nonflammable, nontoxic gases<br>may be worn in mechanical limbs and spare cylinders/cartridges<br>may be carried in carry-on or checked baggage. A sufficient<br>number of cylinders/cartridges to ensure an adequate supply for<br>the duration of the journey is authorized.   |
| Torch Lighters   | Butane lighters, Plasma<br>lighters, blue flame lighters, jet<br>flame lighters | 1     | ×        | Not allowed in Carry On or Checked Bags   | ×            | Not allowed in Carry On or Checked Bags  |





| ltem   | Examples                                 | Image    | Carry On | Carry On Details   | Checked | Checked Details  |
|--|--|----------|----------|--|---------|--|
| Wheelchairs and Mobility<br>Aids with Lithium Ion<br>Batteries that are Not<br>Adequately Protected and<br>Batteries Removed | Electric wheelchair, mobility<br>scooter | <u>F</u> | ~        | In cases when the batteries are adequately protected,<br>it is preferable that they remain installed in the mobility<br>aid; however, there may be situations when that is not<br>possible or safe to do so and in these cases the batteries<br>must be removed. Lithium ion battery size is limited to<br>300 watt hours (Wh). One spare battery not exceeding<br>300 Wh or two spare batteries not exceeding 160 Wh<br>each may be carried in carry-on baggage. Lithium metal<br>(non-rechargeable lithium) batteries are forbidden with<br>these devices. | ×       | Not allowed in Checked Bags  |
| Wheelchairs and Mobility<br>Aids with Lithium Ion<br>Batteries, with Batteries<br>Installed and Protected                    | Electric wheelchair, mobility<br>scooter |          | ×        | Not allowed in Carry On Bags   | ~       | The battery may remain installed only if it is securely attached<br>to the mobility device, the battery housing provides protection<br>from damage, and the terminals are protected from short circuit.<br>maximum of one spare battery not exceeding 300 Wh or two<br>spare batteries not exceeding 160 Wh each may be carried. Spare<br>batteries must be carried in the cabin. Lithium metal (non-<br>rechargeable lithium) batteries are forbidden with these devices.   |
| Wheelchairs and Mobility<br>Devices with Non-Spillable<br>or Dry Batteries   | Electric wheelchair, mobility<br>scooter |          | ×        | Not allowed in Carry On Bags   | ~       | The battery may remain installed if it is securely attached to the<br>mobility device, the battery housing provides protection from<br>damage, and the terminals are protected from short circuit.<br>The battery cables may remain connected only if the device is<br>protected from accidental activation. For complete passenger<br>instructions contact your airline. Advance arrangements and<br>extra check-in time may be necessary.  |
| Wheelchairs and Mobility<br>Devices with Spillable<br>Batteries  | Electric wheelchair, mobility<br>scooter |          | ×        | Not allowed in Carry On Bags   | ~       | The battery may remain installed if it is securely attached to the<br>mobility device and the battery housing provides protection<br>from damage, the terminals are protected from short circuit,<br>and the battery remains in an upright position when stowed on<br>the aircraft. For complete passenger instructions contact your<br>airline. Advance arrangements and extra check-in time may<br>be necessary. The airline may need to remove the battery and<br>package it separately if the wheelchair cannot be stowed upright<br>in the cargo compartment. |

**Security Screening Questions:** The Transportation Security Administration also has rules on "prohibited items" that pose a security threat. Though they sometimes overlap, the TSA security rules are separate from the Federal Aviation Administration (FAA) dangerous goods safety rules. Go to the TSA Prohibited Items web page (**tsa.gov/travel/security-screening**) for more information.

## General Dangerous Goods/Hazmat Questions?

For questions about our stakeholder engagement activities or general questions about dangerous goods (chemicals, batteries, battery-powered devices, gases, aerosols, flammables, etc.) you may contact the FAA Office of Hazardous Materials Safety via e-mail at hazmatinfo@faa.gov or via voice message at 405-954-0088. Please allow 1-2 business days for answers to questions.