

# Think Outside the Trash: Car Seat Recycling

## RECYCLING TOOLKIT

### Your Research

The world is becoming more environmentally conscious. A societal environmental responsibility is sweeping across businesses throughout the world. Businesses decisions to switch to a more sustainable, eco-friendly material for its products lead us to hope that more businesses want to leave a positive impact on the planet.

Diverting car seats from the waste stream is a unique challenge due to the fact that every state has laws mandating the use of child passenger safety seats from birth to eight years or 4'9" reached anywhere from ten to twelve years old. Children use an average of three to four car seats during childhood.

Estimated 10 million car seats are sold each year in the US. A car seat weighing between 12-15lbs results in an estimated 150 million lbs. of plastic and metal being deposited in landfills and incinerators annually in the US.

### The Make-up of a Car Seat

Car seats aren't eco-friendly by nature. Most are made with plastic, necessary for safety. Another problem with car seats are chemicals. Many car seats contain bromine, lead and chlorine.

Car seats are made of polypropylene and ABS Plastic. Most car seat manufacturers use a form of polypropylene (recycle symbol #5) for their shells. The PP plastic is very recyclable. The shell of the car seat is PP. The ABS is a difficult plastic to recycle (recycle symbol#7) It is the harder plastic found on the knobs, handles, recline levers, chest clips, level indicators, buttons, etc. The harnesses, LATCH belts and tethers fall into this category (recycle symbol #&).

Car seats have webbing, fabric covers and EPS foam. The fabric varies. There is usually some polyester batting sewn to the back of it for loft. Approximately ½ yard of fabric is used. Most fabrics are treated with fire retardant chemicals. There is also EPS foam lining the back. Foams which are not EPS foam require to be soaked in fire retardant chemicals.

Car seats decompose slower due to the different materials used to keep them useable and safe. Car seat plastic like any other plastic will take 100-1,000 years to decompose releasing toxins into the environment.

On average a 10-20 lb. car seat 80% is plastic.

By weight 85% is rigid plastic, 5% is metal, 15% is foam (soft and hard), pad, cloth and strapping.

Car Seats contain the following components:

Harness, straps, covers, sun shades, foam (soft and hard) buckles, chest clips, car seat shell, metal and resin.

**Harness and straps** – These secure the child to the car seat or the car seat to the vehicle. The harness and straps are frequently made of polyester webbing and are not widely recyclable. People who make bags or belts from reclaimed materials can sometimes reuse these.

**Covers** – Generally a nylon/polyester blend that is treated with flame retardant chemicals. May also contain: plastic or metal snaps, hooks and eyes, elastic, rigid plastic tabs, or Velcro. Some models also have a place to store metal seat belt locking clips that are needed in some vehicles. Car seat covers are not recyclable at this time, and because of the flame retardants, not good candidates for creative reuse.

**Sun shades** –Rear-facing-only seats often have a cloth and plastic sun shade. If separated from the fabric, which would be trash, the plastic ribs may be recyclable.

**Comfort foam** – A layer of soft foam beneath the cover to cushion the child, the comfort foam generally is treated with flame retardants, and is not widely recyclable.

**Buckles** – Securing the harness straps around the child, the buckles contain both plastic and metal. These can be repurposed or ground to separate the metal from the plastic. The reclaimed metal, and possibly the plastic, is recyclable.

**Chest clip** – The chest clip buckles at arm pit level on the child to help keep the harness snug. The chest clip is plastic, often made of acrylonitrile butadiene styrene ABS (#7) (13).

The **car seat shell** is the structural layer beneath the covers and soft foam. It is comprised of three materials which are fastened together: hard foam, rigid plastic and metal.

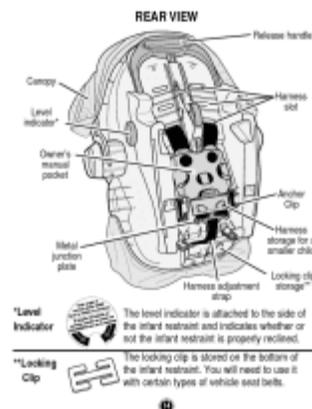
**Hard foam (Styrofoam/polystyrene/EPS #6, EPE, EPP)** – A layer of **hard foam** lines most seats. According to the American Chemistry Council, Expanded Polystyrene (EPS) is the most common variety used in car seats (14). Expanded Polypropylene (EPP) and Expandable Polyethylene (EPE) are also used (15). Clean, hard foam can be recycled at some processing facilities.

**Plastic (various resin types)** The most common plastic in car seats is Impact Copolymer Polypropylene (ICP, Polypropylene, #5). The shell is a single piece of Polypropylene on most car seats and other plastics components may be present as part of the shells including on the handles, skid strips, shoulder belt guides, knobs, recline lever, cup holders, head rests, arm rests, detachable bases, level indicators and buttons. Some components may be made of nylon, ABS, thermoplastic elastomers (TPE) or other plastics.

**Plastic resin** types are found in the shell or other components, including HDPE (#2), LDPE (#4), acrylonitrile butadiene styrene (ABS, #7), Acetal (POM or polyoxymethylene, #7), and polycarbonate (#7) (19).

**Resin identification codes (Appendix V)** are not always included on each plastic part. More research is needed to clarify the types and amounts of plastic resins in car seats.

**Metal (Steel, aluminum)** –Each seat contains a variety of metal reinforcement plates as well as screws, bolts and/or rivets. Some seats also contain steel reinforcement bars that are embedded in the shell, and/or aluminum side walls. Although the bulk of the seat is plastic, typically the most valuable recyclable material is the metal.



## Your Objective

To promote car seat recycling in Salt Lake County  
To educate parents about recalls, expired and un-useable car seats

## Your Recycling Project Process/Plan

(ie)2009- Research the possibility of car seat recycling  
Searched volunteer groups in Salt Lake County  
Identified Eagle Scout Projects, created Task Group for events,  
Identified 8 locations for "Recycle Your Car Seat Week"  
Identified recycling company to take car seats  
2010- Researched local recycling companies in SL County, attended  
2012- Environmental conferences, networking, created database of contacts,  
1<sup>st</sup> "Recycle your Car Seat Event", press conference led by Eagle Scout  
2013- Continued Eagle Scout projects for annual Recycle Your Car Seat Week  
created a partnership with Lowe's to purchase garden sheds for car seat storage, identified locations for sheds, printed signs for the sheds, scheduled county presentations to Council of Mayors, city councils, attended environmental conferences, created information for public; tear pads, website, fliers, liv TV interviews, power points, massive distribution to county agencies, clinics and businesses, created Booster Betty, Car seat Casey - Super Heroes for kids.  
2014- Created permanent car seat drop-off sites at 2 local landfills, 2 fire departments, 1head start agency, 1 clinic, 1 public works facility, and 1 recycling company, awarded **Utah Recycler of Year**, invited as Board member of Utah Recycling Coalition, received **Recycling Achievement award** for recycling 5.49 tons of car seats.  
2015-Updated public recycling information, filming "Life of Car Seat" video, coordinated car seat recycling event during Earth Day, CPS week, poster presentation at Safe Kids PrevCon.

## Your Media Contacts

Banners, fliers, brochures, PSA, news releases, social media, word of mouth, press conference



English

Spanish

## Is Your Car Seat Safe?

- After 5-6 years plastics become brittle like glass, which can cause the plastic in a car seat to shatter during impact.
- Most car seats should not be used longer than 5-6 years.
- Used car seats are not recommended for use, as the history of the seat may not be known.
- Landfills are filling up with car seats that CAN be recycled.

### September 7<sup>th</sup> - 12<sup>th</sup> 9AM - 4PM

Drop off expired/used car seats at the following sites for RECYCLING:

<p><b>Deseret Industries:</b>                  West Jordan (7166 S Redwood Rd)                  West Valley (2994 S Glen Eagle Dr)                  Sandy (727 E 9400 S)                  Murray (11 E 4500 S)                  Welfare Square (743 W 700 S)</p>	<p><b>Unified Fire Stations:</b>                  Kearns (4444 W 5415 S)                  Herriman (5916 W 13050 S)                  Riverton (13000 S 2700 W)</p>
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Contact Safe Kids at 801-313-6607 for locations or visit [www.slvhealth.org/safekids](http://www.slvhealth.org/safekids)

Aaron Richardson,  
 Eagle Scout  
 Community Project

**Please recycle used/ expired car seats!**

### Car Seat Fabrics Can Be Turned Into Useful New Items!

A child's "busy book" using plastic canopy materials, fabric, harnesses, buckles, etc.

Car seat "buddy bag"

Led by:

Call: 385-468-3880  
[injury.slvcohealth.org](http://injury.slvcohealth.org)  
 Printed on 100% recycled paper

### Safe Kids Car Seat & Helmet Drop-Off Sheds

**Locations**

**SALT LAKE CITY**  
 Salt Lake Valley Transfer Station  
 502 West 3300 South

**SOUTH SALT LAKE**  
 SLCoHD South Main Clinic  
 3690 South Main Street

**HERRIMAN**  
 Unified Fire Authority Station 103  
 5916 West 13100 South

**MURRAY**  
 Murray Fire Station #84  
 163 East 5900 South

**RIVERTON**  
 12891 South Redwood Road

**SOUTH JORDAN**  
 Trans-Jordan Landfill  
 10873 South Bacchus Hwy (U-111)

**WEST VALLEY CITY**  
 Public Works Facility  
*(business hours only)*  
 2805 South 3600 West

**MORGAN**  
 Pro Polymers, Inc.  
 375 East 400 North  
 Morgan, UT 84050

## Save Their Planet! Recycle car seats!

**Join the "Recycle Duo"**

Car Seats and Bike Helmets are 100% recyclable

## Go Green, Recycle Your Car Seats!

- After 5-6 years plastics become brittle like glass, which can cause the plastic in a car seat to shatter during impact.
- Most car seats should not be used longer than 5-6 years.
- Used car seats are not recommended for use, as the history of the seat may not be known.

### September 19<sup>th</sup> - 24<sup>th</sup> 9AM - 4PM

Drop off expired/used car seats at the following sites for RECYCLING:

UNIFIED FIRE AUTHORITY FACILITIES	OTHER FACILITIES	
<p><b>MAGNA</b>                      8609 W 2700 S                      801-250-2212   801-250-6539</p>	<p><b>WASATCH</b>                      8303 S Wasatch Blvd                      801-453-1259   801-453-1254</p>	<p><b>SALT LAKE CITY</b>                      URECYCLE                      2064 S Alexander St (2064 W)</p>
<p><b>KEARNS</b>                      4444 W 5415 S                      801-965-9619   801-964-9615</p>	<p><b>WEST JORDAN</b>                      6305 S 5600 W                      801-967-4417   801-964-8928</p>	<p><b>SANDY</b>                      Sandy Public Works                      8725 S 700 W</p>
<p><b>TAYLORSVILLE</b>                      4545 S Redwood Rd                      801-264-2224   801-266-8119</p>	<p><b>HERRIMAN</b>                      5916 W 13100 S                      801-254-3528   801-254-2359</p>	<p><b>SOUTH JORDAN</b>                      South Jordan Police Dept                      1600 W Towne Center Dr                      (10610 S)</p>
<p><b>TAYLORSVILLE</b>                      5317 S 2700 W                      801-840-1511   801-840-1551</p>	<p><b>RIVERTON</b>                      13000 S 2700 W                      801-254-4365   801-254-9565</p>	
<p><b>HOLLADAY</b>                      4625 S Holladay Blvd (2150 E)                      801-278-6633   801-277-8247</p>	<p><b>DRAPER</b>                      780 E 12300 S                      801-571-2321   801-571-3949</p>	
<p><b>SALT LAKE CITY</b>                      1790 E Fort Union Blvd                      801-942-8536   942-8716</p>		

**Safe Kids**  
 Salt Lake County  
 Contact Safe Kids at 801-313-6607 for more information or visit us at [www.slvhealth.org/safekids](http://www.slvhealth.org/safekids)

## EARTH DAY

### CAR SEAT AND BIKE HELMET

# Recycling

Wednesday, April 22<sup>nd</sup> • 11am - 5pm

Car Seat and Bike Helmet Collecting: recycled via Salt Lake County Coalition, Safe Kids Program.

The following Harmons stores will be collecting used car seats and bike helmets:

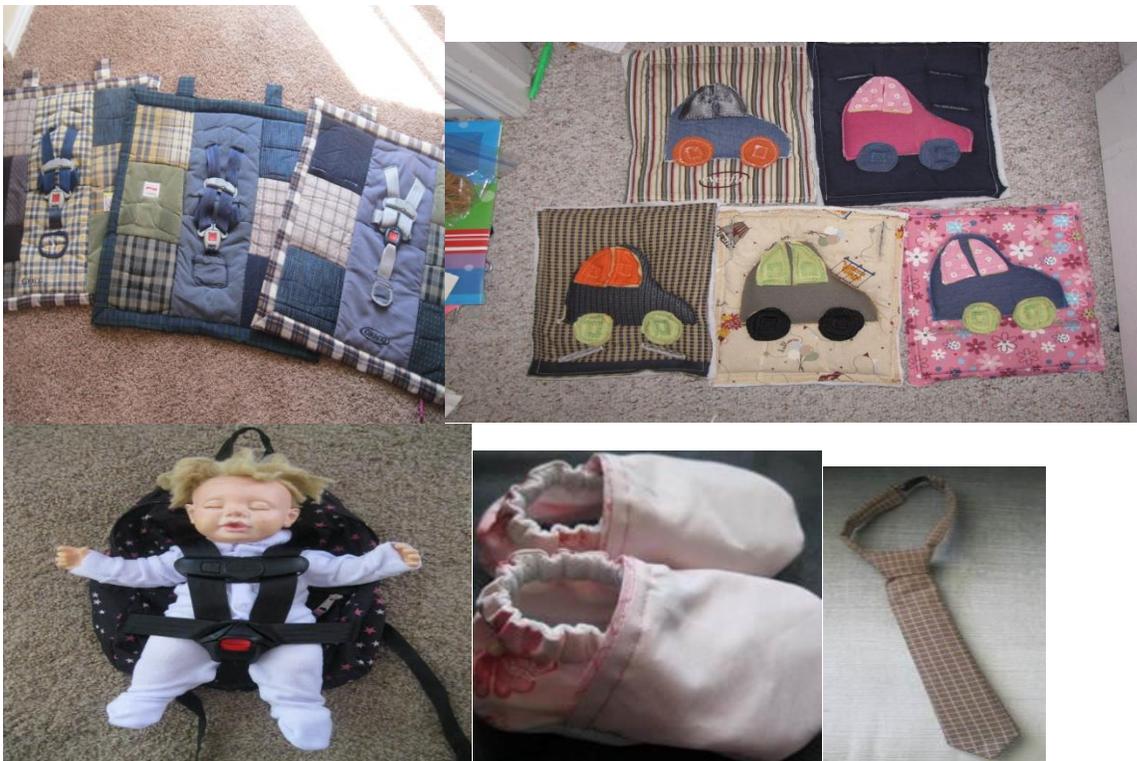
- West
- Taylorsville
- Ogden
- Roy
- Draper

## Your Results/Outcomes

Partnerships, collaborations, entrepreneurs, parents, agencies, hospitals, organizations, police and fire departments, environmental groups and conferences, network



Entrepreneurs in the community use the fabric and materials



## Your Conclusions

There is a community interest in recycling car seats  
People are unaware of possibilities of recycling car seats  
City and county government are willing to support your program  
Partners emerge- be aware of sustainability/environmental organizations

May Romo  
Safe Kids/Injury Prevention Coordinator  
Salt Lake County Health Department  
[mromo@slco.org](mailto:mromo@slco.org)  
385-468-3880