

Lighter Safety Report

Report Summary

- BIC® Lighter Safety Report unveils hidden dangers: an influx of low-quality lighter imports and lack of consumer awareness around lighter safety.¹
- BIC internal testing found that up to **70%** of lighter models tested don't meet safety standards.
- BIC survey found **77%** of Americans don't realize that all safety standards besides the child-resistant feature are voluntary for lighters sold in the U.S. — and many Americans aren't practicing lighter safety.
- BIC has teamed up with other fire safety leaders to provide updated recommendations on best practices to prevent tragic lighter accidents.

In 1994, **BIC**, a world leader in lighters, and the **Consumer Product Safety Commission** (CPSC), ushered in a new era of lighter safety, mandating that lighters like BIC's sold in the U.S. have enhanced child-resistant features to reduce the risk of children accidentally starting fires with lighters. BIC was instrumental in enabling this new rule, providing critical support to CPSC. That same year, BIC partnered with **Fireproof Children**, a division of Community Health Strategies focused on fire safety education, to launch the public education program, **"play safe! be safe!"** to educate young children about fire safety.

Over the past 25 years, the efforts of BIC, the CPSC, Fireproof Children and many other dedicated organizations and individuals have proven that action and advocacy work to measurably improve lighter safety. Since the government mandated child-resistant lighters and following public education efforts, the U.S. has seen declines in the following areas:

- Number of serious fires and deaths / injuries from fires
- Number of structure fires started by children
- Children starting fires while playing with lighters and matches



¹ Source: U.S. Imports Report

But not all change since 1994 has been for the better. Today, two factors threaten to reverse the progress of the last quarter century:

1. All Lighters Are Not Created Equal.™

Low-quality, generic lighters are flooding the United States. More than 300 million non-BIC imports entering the U.S. in 2017 alone. Seventy percent (70%) of the models tested from the U.S. did not meet safety standards set by American Society for Testing and Materials (ASTM) International, meaning they can lead to serious fires, property damages or injuries. **BIC Lighters meet or exceed all safety standards.**

2. A Lack of Consumer Awareness and Action around Lighter Safety.

An online survey of more than 2,000 U.S. adults conducted by The Harris Poll on behalf of BIC in March 2019 demonstrates that many Americans don't understand lighter safety and standards — and don't recognize that there is a wide discrepancy in quality and safety among lighter products. Consumers are likely not making fully-informed purchase decisions, nor are they taking appropriate precautions for lighter safety and overall fire safety in their homes and daily lives.

Understanding Lighter Safety Standards

It's important to first recognize that the CPSC mandate issued in 1994 was specifically for an enhanced child-resistant feature; meaning that at least 85% of children under the age of 5 years cannot operate the lighter. However, no lighters can be 100% childproof. A child-resistant product only means it is more difficult to operate, but some young children may have the ability to do so. There is no substitute for proper adult supervision. This topic emerged as a key misunderstanding among U.S. parents.

Second, while all lighters like BIC's sold in the U.S. must be child-resistant, this feature is the only requirement issued by the CPSC. The ASTM International, one of the world's largest standards-developing organizations, only established *voluntary* lighter safety standards. While BIC meets or exceeds each test, many lighters failed at least one safety standard based on internal BIC testing.

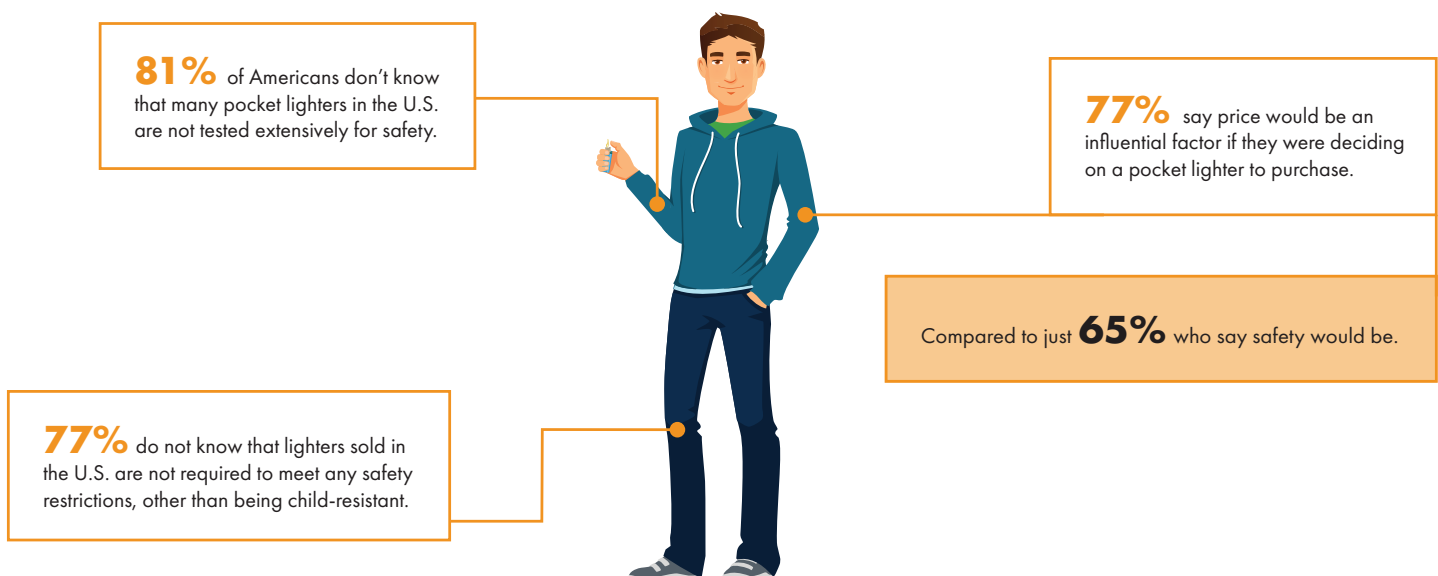
Learn more about ASTM safety standards on page 4.

Results from 2019 Consumer Lighter Safety Survey

To understand consumers' level of understanding of the potential dangers of low-quality lighters, The Harris Poll conducted a survey on behalf of BIC from March 14-18, 2019 among 2,015 U.S. adults ages 18 and older, including 756 frequent pocket lighter users¹ and 644 parents².

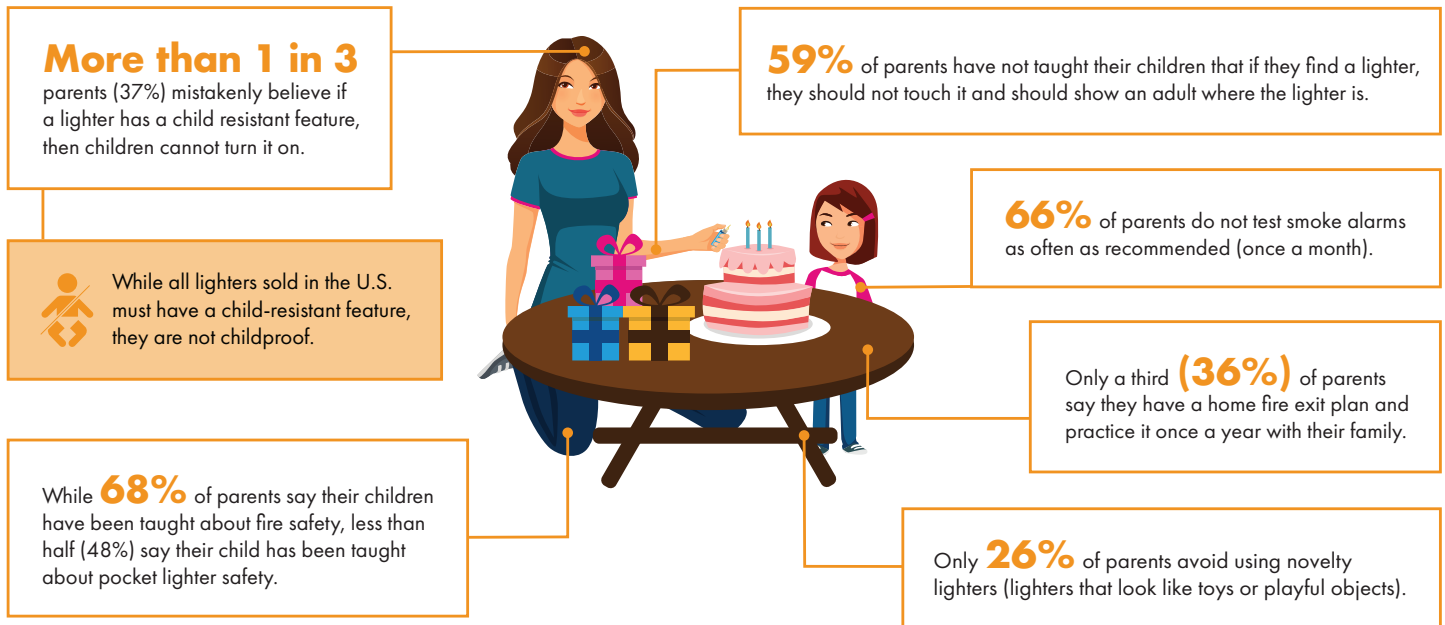
Two key themes emerged:

Americans don't understand the lack of safety requirements for lighters, suggesting they are not taking the appropriate precautions.



^{1,2} Frequent lighter users are defined as people who use a lighter weekly or more often, and parents are defined as parents of children ages 18 and under unless otherwise noted.

Parents need to educate themselves on lighter safety.



Recommended Lighter Safety Tips for Individuals and Families

Everyone must do their part to understand and practice lighter safety – from lighter manufacturers to retailers to educators to consumers.

As the U.S. leader in lighter manufacturing, BIC is committed to meeting or exceeding the most rigorous safety and quality standards. Each of its 7 million lighters produced worldwide daily undergoes more than 50 quality and safety checks during the manufacturing process.

While BIC urges other manufacturers to ensure the same level of voluntary quality and safety, here is how consumers can practice lighter safety:

- **Know that all lighters are not created equal.**
Lighter imports may not meet the ASTM Safety Standards, which could result in a lighter malfunctioning.
- **Only purchase lighters that meet key safety standards.**
Choose a brand you trust, such as BIC Lighters, which are guaranteed to meet all recommended and mandatory safety requirements.
- **Teach young children to tell a grown up immediately if they find a lighter or matches, and not to touch them.**
Not all parents own lighters. Even if you do not have a pocket lighter in your home, a child could encounter one almost anywhere.
- **Store lighters out of sight and reach of young children,** preferably in a secure location.
- **Explain that lighters are dangerous adult tools, and ensure children know that lighters are not toys.**
Never use novelty lighters that look like toys or playful objects around children.
- **Never use a lighter if it's been compromised in any way,** for example, after exposure to excessive heat or prolonged sunlight, or in violation of the warnings and instructions accompanying all BIC Lighters.

ASTM Voluntary Lighter Safety Standards

The following are the standards recommended by ASTM International. These tests are most closely related to accidental fires and injuries. Many low-quality, generic (and often less expensive lighters) failed at least one of these tests, compared to BIC which meets or exceeds all voluntary standards.



Flame Extinguishing Time – After a user removes their finger from the lighter, there should not be any exposed flame within 2 seconds, and any flame that might continue below the hood or windscreen should fully extinguish within another 2 seconds. **All BIC lighters extinguish immediately.*



Flame Height – Flame height should not exceed 2-inches for non-adjustable lighters or 4.75-inches for adjustable lighters (adjustable lighters are lighters which enable the user to change or “adjust” the flame height). **BIC Lighters have a consistent flame that are well within safety standards.*



Spitting & Sputtering – The condition where non-evaporated or liquid fuel escapes from the lighter producing a shower of burning liquid droplets that separate from the main flame. **BIC’s fixed flame lighter design does not create spitting or sputtering.*



Flaring – There should be no greater than 2-inches of variation in flame height from the steady state flame condition. In other words, the flame should not flare up unexpectedly to a greater height. **BIC’s fixed flame lighter design does not create flaring.*



Drop Test – Every lighter should be able to withstand three separate 5-foot drops without fuel reservoir fragmentation, sustained self-ignition or gas escape (leakage) exceeding 15 milligrams per minute. **BIC lighters are routinely drop tested and pass the requirement.*



Volumetric Displacement – Liquid portion of fuel should not exceed 85% of the fuel reservoir capacity, to allow for some expansion within the body of the lighter in hotter weather conditions (as one example). ** BIC’s automated manufacturing process ensures the fuel doesn’t exceed 85% of the fuel reservoir capacity.*



Resistance to Continuous Burn – If a lighter is lit for two minutes or more, the highest flame height should be two inches if held vertically, without any issues of components continuing to burn, or the valve rupturing / coming apart. **All BIC lighters meet these requirements.*



Resistance to High Temperature – Every lighter should be able to withstand 149-degrees Fahrenheit for 4 hours without gas escape (leakage) exceeding 15 milligrams per minute. **BIC lighters are routinely tested and meet the elevated temperature requirement.*

***Do NOT attempt to test a lighter at home!**



SAFETY YOU CAN COUNT ON

For more information on BIC's commitment to lighter safety, visit URL Biclighter.com.

Survey Method:

This survey was conducted online within the United States by The Harris Poll on behalf of BIC from March 14-18, 2019 among 2,015 U.S. adults ages 18 and older, among whom 644 are parents of children under 18. This online survey is not based on a probability sample and therefore no estimate of theoretical sampling error can be calculated.

For complete survey methodology, including weighting variables and subgroup sample sizes, please contact Raquel Tanz: rtanz@gscommunications.com