

October 6, 2021

Jeremie Papin, President Nissan North America, Inc. One Nissan Way Franklin, TN 37067

Dear Mr. Papin:

The Center for Auto Safety (CAS) writes today regarding a recent review of complaints conducted by CAS. Dashboards in Nissan models from 2008 and later vehicles are degrading, particularly in Nissan Altima vehicles, apparently due to exposure to hot climates across the southern United States. Invariably this condition is described by consumers as "melting" and generates a great deal of distress. The degraded condition of the dashboards could also be risking consumer safety.

Over almost the last decade, "melting" Nissan dashboards are the most frequent car complaint CAS has received. Many of these complaints are about more than the dashboards' cosmetic appearance, and frequently document legitimate safety concerns that remain due to Nissan corporate and dealership practice of refusing to provide consumers with repair assistance or replacement dashboards. Despite complaints from owners of other Nissan brands and models, only certain Nissan Altima owners benefiting from a Florida class action lawsuit settlement covering a limited number of model years (2008-2009) and only relatively new vehicles (purchased or leased new or used 2008 or 2009 Nissan Altima on or before April 1, 2017) have been able to receive subsidized replacement dashboards. As a result, Nissan owners in Florida with the same problem but that developed later or in any other states with warm climates across the country are at risk of developing this condition, or are currently driving despite this condition, with an expensive replacement (\$2,000 or more) as their only option.

It is time for Nissan to be honest about the poor design that went into these dashboards, and the choice to use materials that do not adequately accommodate temperatures experienced in warmer U.S. climates. If left unaddressed, these dashboards will continue to be a source of frustration and potential hazard for many unsuspecting Nissan owners for years to come. On behalf of the almost one hundred of Altima and Maxima owners who have filed complaints with CAS, and the more than a thousand who have filed complaints with the federal government, we request that Nissan immediately assist consumers who are experiencing safety and drivability concerns due to these dashboards.

## **Consumer Complaints**

CAS has regularly received complaints on degraded Nissan dashboards for the past decade. These complaints cite various negative consequences, from difficulty driving safely due to glare, interior stickiness, and foul odors.

Below are just a few examples of consumer quality and safety concerns, often outside of Florida, as well as efforts to remedy the problem.

Patty in Fort Worth, Texas: "I purchased this used car in June 2021 for my 16-yearold daughter and upon purchasing this 2010 Nissan Maxima, nothing appeared to be damaged on the vehicle. When the temperatures outside became extremely hot, I noticed the dash putting a strong glare on windshield, so strong it was actually too dangerous for my daughter to drive her car! with that said, I started trying to figure out what was causing the glare and it was when I noticed the dash was actually real sticky, it was from the ingredient to hold the dash together, the heat was causing the chemical to rise through the dash which made the dash melt, it also puts off odor in the car. My main concern is the glare on the windshield and the odor in the car, both are not good!!!"

<u>Cherie in Lexington, South Carolina:</u> "Melting dashboard which is causing a glare when driving. Very uncomfortable when driving since it gives you a false sense or distortion when you are trying to drive or park. Safety hazard and this issue needs to be addressed by Nissan. Who would purchase a car that is not backed by its car makers?"

<u>Justin in Alabama:</u> "The dashboard in our 2008 Altima is melting. It is ultra sticky and isn't cleanable at all. It wreaks of a chemical smell and also puts a glare on the windshield in certain lighting. It's a mess, and it's dangerous. There was a class action lawsuit filed for the issue in Florida and Nissan fixed the Altimas there. It gets just as hot in Alabama..."

<u>Demetria in Katy, Texas:</u> "My dashboard is melting and giving out a foul odor when it gets hot, Have been trying to get Nissan to take care of this but they refused."

<u>Malcolm in Miami, Florida:</u> "My 2008 Nissan Altima Dashboard has melted from the sun. I started to notice this problem around 2010. I never paid it any mind because I thought it was something that happened when a car has gotten detailed. I was walking pass another car one day with the same problem. I did a search on the internet and found that there is a major defect with this model year. The dash has become very sticky and shiny and also causes a odor of melting plastic. This has become a major safety issue. the sun reflects off the dashboard and create a glare that impairs your vision while driving. I reached out to Nissan and they declined to resolve the issues. they said they are aware of the problem but cannot do anything due to the car is out of warranty. I made complaints and still the problem is not resolved. I now have to buy a new dashboard to resolve the issues."

<u>Adam wrote</u> "is melting, secreting chemicals making the dash stick, un-cleanable and very shiny. The glare on the windshield is caused by the shiny secretion from the dash materials of construction, causing very dangerous driving conditions and serious safety concern. Car cannot be driven on sunny days. Dealers refuse to do anything about it except charge more than \$2,000 to replace. But issue will probably happen again. Cannot sell this car with this safety issue unresolved."

Even a cursory look at NHTSA's consumer complaints data raises significant concerns, as more than 1,000 complaints have been lodged with the agency.<sup>1</sup> In fact, there are over 700 complaints of dashboard problems just on 2007-2013 Nissan Altimas. Many owners report having received little assistance from Nissan to rectify their complaint. Below are but a few of the concerns relayed by Nissan owners:

A <u>Miami, Florida</u> Altima owner alleges that dash glare caused an accident: "In February 2013 I had a frontal car accident due to the glare on my windshield of my melting dash board on my 08 Altima. my dashboard seems to be melting without no reason. Dealer will not replace defective dashboard as it is not part of a recall. This is a serious issue which may cause a serious accident raven death to a motorist or pedestrian. Nissan needs to make a recall on this issue, it is obvious that this was a defect on their behalf for the majority of 08 Altimas.

In <u>Kenner, Louisiana</u>, an owner complains that their "Dashboard, steering wheel, and shift handle have all melted from heat. the dashboard has become almost liquified, and the glare from the now shiny surface creates a reflection on the windshield, creating a safety hazard. the steering wheel has become gummy, making steering unsafe, and the rubbery material on the shift handle has become gummy, making it difficult to safely shift gears accurately."

An Altima owner in <u>Pelahatchie, Mississippi</u> writes, "The dash of my 2008 Nissan Altima coupe has melted so severely that it's almost impossible to drive in the daytime. The material once melted becomes extremely sticky and dangerously reflective. what I mean by reflective, is that when the sun shines, it reflects so much light from the dash to the front windshield right into my, the driver, eyes. the reflections are extremely and dangerously blinding which makes it very difficult to see the road or anything else for that matter! Not to mention the glue like surface that makes it impossible to put something on the dashboard to try reducing the deadly reflections! The manufacturer's defective product is extremely dangerous to the direct safety of myself and my family and every other motorist, pedestrians, animals etc."

<sup>&</sup>lt;sup>1</sup> NHTSA Complaints Spreadsheet, October 2021, <u>https://docs.google.com/spreadsheets/d/1E8wrMUH211XIRjscW4vCUD02gVCiuXC\_ahhjBpIyiVw/edit#gid=0</u>

<u>Waukesha, Wisconsin</u> is not far enough north to avoid heat degradation: "The dashboard is starting to melt. I thought it was just dirty, but in fact, when I tried cleaning it, a sticky glue type substance came up. This has become a safety hazard as the shiny glare shines on the windshield making it hard to see. I did a basic search on the internet to find out that this is a common issue with my vehicle."

Even folks from Nissan's adopted home state of Tennessee cannot catch a break: "The dashboard is melting and turning to goo and now is also crumbling. I started contacting Nissan Corp. approx 3 years ago. I have attempted to file 3 claims and all have been denied. The dealership agrees that the dashboard is defective but states since the car is out of warranty they can't help. The dashboard puts off a glare that is a safety hazard, especially on sunny days. This is the same issue that a lawsuit filed in Texas and Florida resulted in the dashboards. There is also an odor at times and the vapor leaves a film on the windshield. You can't clean the windshield because the rags or paper towels stick to the goo. This issue is a safety hazard. I have researched and have found multiple consumers are experiencing the same issue and have been denied by Nissan. the Nissan rep would not even allow me to speak with her supervisor or anyone in charge. she simply said I have presented your information and our decision is final getting replaced. Basically I was told that I am not part of the Florida or Texas suit so sorry about your luck. Nissan did say that if I wanted to buy a new car they would offer me a special deal. Really why would I buy something from a company that knows the dashboards are defective.

NHTSA has received degraded Nissan dashboard complaints from Hawaii to Wisconsin and from California to Connecticut, and even two complaints from armed forces stationed in Europe. This raises a concern as many of the reports cite drivability and safety issues, and many of these vehicles remain on America's roads, presumably in some state of degradation depending on just how often or how long the vehicle has been exposed to hot temperatures. While the most often reported hazard is glare, the state of these vehicle interiors raises questions about other potential hazards, whether it be in safety systems that are contained in or near the dashboard, or chemical exposure due to materials failure.

# <u>Glare Hazard</u>

The lethality of hazardous reflective glare has been previously reported,<sup>2</sup> and CAS sees no reason to wait for more such reports before action is taken. "Glare is a sensation caused by bright light in one's field of view. Glare can reduce one's ability to see, create feelings of discomfort or both."<sup>3</sup> Many recent dangerous, debilitating glare problems in the driver's line of sight

<sup>&</sup>lt;sup>2</sup> Sun glare a likely factor in fatal Old Greenwich collision, CT Insider, January 17, 2020, <u>https://www.ctinsider.com/local/article/Sun-glare-a-likely-factor-in-fatal-collision-in-</u> 14984984.php? ga=2.57534314.1764950568.1581357772-690079700.1554341290;

*Life-threatening motor vehicle crashes in bright sunlight*, Redelmeier et al., Medicine, Jan. 2017, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5228668/

<sup>&</sup>lt;sup>3</sup> Nighttime Glare and Driving Performance, NHTSA report to Congress, February 2007, https://www.nhtsa.gov/sites/nhtsa.gov/files/glare\_congressional\_report.pdf

associated with so called "melting" dashboards on Nissan vehicles have been reported.<sup>4</sup> CAS continues to receive numerous consumer complaints, including some as recently as this week, about Nissan vehicles with so-called "melting" dashboards characterized by a chemical smell, and a sticky, shiny exudate on the dashboard. These complaints to CAS have origins in Alabama, Arizona, Arkansas, Florida, Georgia, Kentucky, Louisiana, North Carolina, South Carolina, Tennessee, and Texas, and include both Nissan Altima and Maxima models from model years 2008 - 2012.

As you know, a class action lawsuit seeking replacement of defective 2008-2009 Nissan Altima vehicle dashboards was settled in 2017.<sup>5</sup> In settlement of the class action lawsuit, Nissan agreed to subsidize replacement dashboards (consumer cost was \$250) for its Altima customers but in only one state (Florida) and only for a short interval on relatively new cars (purchased or leased new or used 2008 or 2009 Nissan Altima on or before April 1, 2017). Yet, Nissan then refused to replace equally defective dashboards in older Altima cars or in its other brands and models that are frequently owned by less affluent owners. As has been made clear by the locations and dates identified in complaints to CAS and NHTSA, this action fell far short of addressing the full geographic and temporal scope of the problem. The settlement provided no relief for consumers with similarly defective dashboards in 2008-2009 Altima vehicles in any state other than Florida, or for other models, or other model years.

There are many aging Nissan vehicles still on the road that have not had defective and potentially dangerous dashboards replaced. As Bureau of Labor Statistics studies have found, the purchase of a used vehicle is often greatly influenced by age, race, gender, and income level demographics.<sup>6</sup> By allowing so many used vehicles to remain on the road with a defective dashboard would appear to be an example of inequality of access to automotive safety based on differences among different income and demographic groups. Such a circumstance is not only bad corporate policy but also runs counter to the spirit of equitable access to safety sought by NHTSA's implementation of Executive Order 13985, "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government,"<sup>7</sup> and accordingly we have forwarded this letter to NHTSA as well.

# **Beyond Glare**

<sup>&</sup>lt;sup>4</sup> Melting Dashboards: Consumers Demand Answers, Recall From Nissan, NBC Dallas Fort Worth, June 24, 2019, https://www.nbcdfw.com/news/local/melting-dashboards-consumers-demand-answers-recall-from-nissan/232577/ and This automaker promised to fix melting dashboards for drivers -- but not in Georgia, WSB-TV Atlanta, October 17, 2019

https://www.wsbtv.com/news/local/north-fulton-county/this-automaker-promised-to-fix-melting-dashboards-fordrivers-but-not-in-georgia/993769420/

<sup>&</sup>lt;sup>5</sup> Nissan Altima Florida Defective Dashboard Class Action Settlement, Class Actions reporter, <u>https://classactionsreporter.com/settlement/nissan-altima-florida-defective-dashboard-class-action-settlement/</u>

<sup>&</sup>lt;sup>6</sup> Laura Paszkiewicz, Consumer Expenditure Survey Anthology, 2003, The Cost and Demographics of Vehicle Acquisition, Table 1, <u>https://www.bls.gov/cex/anthology/csxanth8.pdf</u>

<sup>&</sup>lt;sup>7</sup> Request for Information on Transportation Equity Data, DOT, 5/25/2021, <u>https://www.transportation.gov/equity-RFI</u>

The dangers of glare and its impact on driving safety have been well established.<sup>8</sup> NHTSA's studies have shown that glare is the second most common environmental factor in crashes.<sup>9</sup> Yet, glare is not the end of the faulty "melting" dashboard hazard story. (To be clear, we are aware the dashboards are not actually melting, they are progressively changing into a new material that has neither the original surface finish, original material properties, nor originally designed configuration.)

Polyvinyl chloride (PVC) is a common material used in plastic dashboard designs. To create desired material properties PVC used in dashboards, and many other products, includes plasticizers and other chemicals. One commonly used chemical family of plasticizers are phthalates.

When plastics get hot, the phthalates leech [sic] out. The haze that films the inside of our windshields consists of phthalates that have "evaporated" out of interior plastics and collected on the glass. Long-term phthalate loss accounts for dashboards becoming increasingly brittle and splitting.<sup>10</sup>

Environmental heat in hot climates including, but not limited to the southern tier of the United States, evidently induces leaching of chemicals from the dashboards of Nissan products, as it did in Toyota products, causing their original matte surfaces to become sticky and glossy. As discussed in the previous section, the combination of incident light, glossy dashboard surface induced by the exudate can obscure a driver's view of other vehicles and pedestrians and contribute to collisions. In addition to the glare problem, however, plasticizer migration out of a dashboard's plastic substrate has at least two more potentially major safety consequences.

### **Airbag and Dashboard Interaction**

In addition to glare, a second major concern is modification of plastic substrate material properties caused by thermally-induced plasticizer exudation. Plastic becomes less pliable and more brittle when plasticizers are lost, changing their original structural properties.<sup>11</sup> Airbags are designed to burst through plastic dashboard panels when deployed and will behave differently when the enclosing plastic dashboard properties change. Designing dashboards and other airbag release mechanisms is a demanding process that relies on knowledge of the airbag itself, on the material properties of the airbag enclosure, detailed analysis of airbag release dynamics, and validating tests. These tests are needed to prove that airbag activation does not

<sup>&</sup>lt;sup>8</sup> Nighttime Glare and Driving Performance, NHTSA report to Congress, February 2007, <u>https://www.nhtsa.gov/sites/nhtsa.gov/files/glare\_congressional\_report.pdf;</u>

Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey, <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115;</u>

Life-threatening motor vehicle crashes in bright sunlight, Redelmeier et al., Medicine, Jan. 2017, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5228668/;</u>

<sup>&</sup>lt;sup>9</sup> Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey, <u>https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115.</u>

<sup>&</sup>lt;sup>10</sup> *Can You Say Phthalates*, The Truth About Cars, September 25, 2006, https://www.thetruthaboutcars.com/2006/09/can-you-say-phthalates/

<sup>&</sup>lt;sup>11</sup> Why do some plastics become sticky after a while, Saeed Doroudiani, , PhD, P.Eng., Polymer Scientist, Experience of working with plastic materials, <u>https://www.quora.com/Why-do-some-plastics-become-sticky-after-a-while?share=1</u>

cause the dashboard material to disintegrate and injure the vehicle occupants or create artifacts that can damage the airbag itself.<sup>12</sup> Airbag enclosures including those in dashboards are carefully designed and machined to release airbags upon inflation and not damage the bag in the process of penetrating the dashboard enclosure. Successful deployment and dashboard penetration depend critically on the properties of the overlaid dashboard plastic material.

Exactly how the degraded dashboard material properties will affect airbag deployment dynamics is unknown due to an absence of applicable research and analysis into degraded dashboard plastic properties and their consequences. However, plastic degradation and embrittlement after prolonged exposure to hot environments is well established. The hazard potential of degraded airbag performance due to dashboard plastic degradation cannot be summarily dismissed pending results of applicable research into airbag performance in affected vehicles.

Dashboard interaction with interior components during deployment is critical both to ensure proper protection in the event of an accident, and to avoid unintentional injury to the occupant by vehicle interior components that are improperly situated. NHTSA has overseen numerous recalls where these situations occur,<sup>13</sup> which suggests that if Nissan's dashboard deformation interferes with proper airbag deployment and fails to prevent occupant injury because of out-of-position interior parts, a recall could be in order.

# **Unnecessary Exposure to Hazardous Chemicals**

A third major concern is the potential health hazard associated with human exposure to plasticizers, particularly phthalates. Phthalates that may be absorbed by humans are known to leach from PVC and other plastics<sup>14</sup> that are likely included in the Nissan dashboards. The reported glossy dashboard exudate likely contains concentrated plasticizers, potentially including phthalates, that have leached out of the plastic substrate.<sup>15</sup>

There is an extensive literature on human phthalate exposure and its health impacts including a Consumer Product Safety Commission report, the <u>Chronic Hazard Advisory Panel (CHAP) on</u> <u>Phthalates</u> documenting phthalate health impacts in 2014.<sup>16</sup> The Guardian reported:

Name a major public health concern over the past two decades and there's likely some link to phthalates exposure.

In the past few years, researchers have linked phthalates to asthma, attention-deficit hyperactivity disorder, breast cancer, obesity and type II diabetes, low IQ,

<sup>&</sup>lt;sup>12</sup> Static and dynamic simulations for automotive interiors components using ABAQUS, Olivero et al., 2012 SIMULIA Community Conference, <u>https://imechanica.org/files/Olivero\_Fiat\_final\_2242012.pdf</u>

<sup>&</sup>lt;sup>13</sup> See NHTSA Recalls 91V215, 96V211, 97V107, 04V551, 10V145, 13V456, 14V563, 14V624, 17V062, 18V593, 18V806, 20V152, 20V273, 20V274, and 20V633.

 <sup>&</sup>lt;sup>14</sup> Leaching of the plasticizer di(2-ethylhexyl)phthalate (DEHP) from plastic containers and the question of human exposure, 2014 Dec, Appl Microbiol Biotechnol, <u>https://pubmed.ncbi.nlm.nih.gov/25376446/</u>
<sup>15</sup> Supra at FN 10.

<sup>&</sup>lt;sup>16</sup> Report to the Consumer Product Safety Commission, by the Chronic Hazard Advisory Panel on Phthalates and Phthalates Alternatives, July 2014: <u>http://www.cpsc.gov/PageFiles/169902/CHAP-REPORT-With-Appendices.pdf</u>)

neurodevelopmental issues, behavioral issues, autism spectrum disorders, altered reproductive development and male fertility issues.<sup>17</sup>

It has not yet been confirmed that the "melting" Nissan dashboard exudate is rich in phthalates but, since phthalates are a common PVC plasticizer, since PVC is a common component of dashboards, since phthalate exudation from PVC in hot climates is well established, and studies of other modern cars have shown elevated phthalate levels in summer weather, it is a valid concern.<sup>18</sup> Pending chemical analysis of the Nissan dashboard exudate, and with its potential for a phthalate-rich composition, consumers and regulatory authorities should be concerned about the phthalate exposure health risks of Nissan dashboards in hot climates. "The human body absorbs phthalates through the skin, orally, or through the lungs."<sup>19</sup> Videos documenting glare show consumers touching the shiny windshield exudate or 'goo' with unprotected skin.<sup>20</sup> Deposition of volatile organic compounds on the windshield exacerbating the glare from reflected light shows that those chemicals are abundant in the vehicle cabin. The position of defroster vents will cause fans to blow the chemical-laden air directly toward front seat passengers' faces where any such chemicals would be inhaled.

The CDC has said that some phthalates exposure can occur from breathing phthalate particles in the air.<sup>21</sup> Disturbingly, a recent article documented ongoing concerns about the deleterious health effects of phthalate exposure, including male reproductive organ development, delayed language development, and early onset puberty.<sup>22</sup> While the U.S. has prohibited phthalate use in some products, there is currently no prohibition on using this chemical in vehicles in the U.S.,<sup>23</sup> yet automotive use of phthalates has been banned in EU countries.<sup>24</sup>

# Conclusion

Nissan has addressed the issues presented by these dashboards for two relatively narrow classes of consumers. To settle the Florida class action suit discussed above, Nissan agreed to subsidize replacing affected defective Altima dashboards only in Florida, only for one model, and only for a narrow model year window, not in all affected models, nor in all affected model years nor in

<sup>&</sup>lt;sup>17</sup> *Phthalates are everywhere, and the health risks are worrying. How bad are they really?*, The Guardian, February 10, 2015, <u>https://www.theguardian.com/lifeandstyle/2015/feb/10/phthalates-plastics-chemicals-research-analysis</u>

<sup>&</sup>lt;sup>18</sup> Investigation of volatile organic compounds and phthalates present in the cabin air of used private cars, Environmental International, November 2009,

https://www.sciencedirect.com/science/article/pii/S0160412009001779; Air quality inside motor vehicles' cabins: A review, Research Gate, November 2016,

https://www.researchgate.net/publication/310466891 Air quality inside motor vehicles' cabins A review <sup>19</sup> Supra at FN 10.

<sup>&</sup>lt;sup>20</sup> Supra at FN 4.

<sup>&</sup>lt;sup>21</sup> U.S. Centers for Disease Control and Prevention, *Phthalates Factsheet*, April 5, 2021, <u>https://www.cdc.gov/biomonitoring/Phthalates\_FactSheet.html</u>

<sup>&</sup>lt;sup>22</sup> Phthalates: Research finds more worrying links with human health problems, ChemTrust, 12/12/18, <u>https://chemtrust.org/phthalates-human-health/</u>

<sup>&</sup>lt;sup>23</sup> 15 U.S.C. 2057c.

<sup>&</sup>lt;sup>24</sup> EU Enacts Additional Phthalate Restrictions, Carra and Lamotte, JD Supra, January 11, 2019, <u>https://www.jdsupra.com/legalnews/eu-enacts-additional-phthalate-93134/</u>

other at least equally hot and demonstrably affected states. Nissan has also provided for an 8 year limited extended warranty to certain Infiniti owners.<sup>25</sup>

In light of steadily rising temperatures across the country, CAS does not believe this outcome to be fair to residents of other states that could not afford to purchase a vehicle from Nissan's luxury line, or don't happen to live in Florida, and so we are asking Nissan to reconsider consumer requests for replacement dashboards in light of the concerns outlined above.

Further, Nissan should unequivocally determine whether its vehicles' degraded dashboards are endangering the public due to glare concerns, through the potential to compromise other vehicle safety systems such as airbag performance, or through toxic chemical exposure, and if so, replace these at no charge to consumers.

Thank you for your attention to this matter,

Sincerely,

for his

Jason Levine Executive Director

cc: Steven Cliff, Deputy Administrator, National Highway Traffic Safety Administration Ann Carlson, Chief Counsel, National Highway Traffic Safety Administration

<sup>&</sup>lt;sup>25</sup> See Nissan Loses Case on Dashboards Defect, June 3, 2014, https://www.kansascity.com/news/business/article420282.html