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Insights

IARC CLASSIFIES AUTOMOTIVE GASOLINE AS CARCINOGENIC TO HUMANS

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The International Agency for Research on Cancer (IARC)—a branch of the World Health Organization mandated to investigate potential causes of cancer—conducts its own hazard evaluations of suspected carcinogens and publishes its classifications in IARC Monographs. As IARC's own Q&A document explains, these classifications "indicate the strength of the evidence as to whether an agent is capable of causing cancer (technically called "hazard"), **but it does not measure the likelihood that cancer will occur (technically called "risk") at a particular level of exposure to the agent."**[1]

IARC's latest monograph from their February-March 2025 Working Group evaluated "automotive gasoline and some oxygenated gasoline additives."[2] Based on their assessment, IARC assigned automotive gasoline to Group 1 (carcinogenic to humans) and gasoline additives to Group 2B (possibly carcinogenic to humans).[3] With this Group 1 classification, gasoline joins the consumption of processed meat and alcohol as substances for which IARC has concluded "that there is convincing evidence that the agent causes cancer in humans."[4] Specifically, IARC concluded that "[a]utomotive gasoline causes cancer of the urinary bladder and acute myeloid leukemia [AML] in adults."[5] IARC's classification for gasoline was purportedly made on the basis of "sufficient" evidence for cancer in humans, and the combination of "sufficient" evidence for cancer in experimental animals and "strong" mechanistic evidence in exposed humans.[6]Bladder cancer is the 6thmost common kind of cancer in the United States, with almost 85,000 new cases estimated in 2025.[7]Acute myeloid leukemia [AML] is a less common kind of cancer, with approximately 22,000 cases estimated in 2025.[8]IARC also concluded there was "limited" evidence demonstrating that gasoline could cause lymphoblastic leukemia in children, and "limited" evidence for non-Hodgkin's lymphoma, multiple myeloma, myelodysplastic syndromes, stomach cancer, and kidney cancer in adults.[9]

IARC classifications of substances to Group 1 (carcinogenic to humans) and Group 2A (likely carcinogenic to humans) have turbocharged mass tort and class action litigation in recent years. Here, the IARC classification of automotive gasoline to Group 1 creates a vast potential claimant

pool for Plaintiffs' counsel, although it is unclear whether those claims would be successful since the Monograph, by IARC's own admission, does not conclude whether certain types of exposures to gasoline (e.g. retail gasoline filling) would be sufficient to cause cancer. But, according to IARC, "the people most likely to be exposed to gasoline include service station attendants, mechanics, and workers in production and transportation of gasoline."[10]And, IARC's monograph also suggests that the general population is at risk of exposure to gasoline, "via air pollution or gasoline vapours at service stations."[11]

IARC hazard evaluations are not without controversy. Criticisms of IARC evaluations—including the Working Group that classified gasoline—include their closed-door nature, the lack of peer-review or public comment, a lack of balanced viewpoints, possible conflicts of interest, failure to include all of the available data in their evaluations, and IARC classifications that are inconsistent with other agency conclusions and all of the available scientific data.[12]Critically, IARC classifications do not evaluate what dose of a particular substance is necessary to cause cancer. Nevertheless, IARC classifications have been part and parcel of recent litigation, including lawsuits focused on exposure to glyphosate, polychlorinated biphenyls, perfluorinated chemicals, and benzene.

Gasoline is a complex mixture of chemical substances, including benzene. Although Plaintiffs have previously alleged a causal relationship between occupational exposure to gasoline and the occurrence of cancer, particularly AML, establishing general and specific causation in prior litigation based on exposure to gasoline has been challenging. In at least one case, the Court's ruling to grant Defendant summary judgment on general and specific causation relied on the fact that Plaintiff's experts could not demonstrate that their general proposition that gasoline (rather than benzene) causes AML was supported by the scientific community. *Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142 (E.D. Wash. 2009). In another case, a Plaintiff's expert's general causation opinion was excluded because he did not cite any "gasoline-specific literature" and he improperly extrapolated benzene's carcinogenicity to gasoline without justification. *Burst v. Shell Oil Co.*, 120 F. Supp. 3d 547 (E.D. La. 2015). The Court even cited IARC's 1989 Monograph for the proposition there was inadequate evidence for carcinogenicity of gasoline. *Id.* at 553. Plaintiffs' counsel can now make the reverse claim: citing IARC's recent Monograph for the proposition that there is adequate evidence for the carcinogenicity of gasoline. This Group 1 classification will likely allow plaintiffs to more easily clear the "general causation" hurdle and require them only to develop their theory on the amount of exposure needed to cause bladder cancer or AML. Already, Plaintiff-side firms are soliciting candidates for lawsuits based on gasoline exposure not just in the occupational setting, but exposure to the general public, asserting that "[t]he general public is mainly exposed to dangerous gasoline vapors if they live near a gas station or while fueling their cars."[13]They further assert that "[e]xposure to harmful gasoline vapors can also come via air pollution, or from water and soil that has been contaminated by gasoline spills.[14]Claiming that "oil companies have known of the cancer risks associated with gasoline exposure since the 1950s," they request that "[p]eople who have been diagnosed with cancers believed to have been caused by gasoline exposure"

contact their firm.[15] Based on this example, we can surely expect increased litigation to follow this recent IARC classification of automotive gasoline.

FOOTNOTES

[1] https://monographs.iarc.who.int/wp-content/uploads/2018/07/IARCMonographs-QA.pdf

[2] IARC Monographs News, March 2025 Issue No. 11, page 2.

[3] IARC Monographs News, March 2025 Issue No. 11, page 2.

[4] https://monographs.iarc.who.int/list-of-classifications/

[5] IARC Monographs News, March 2025 Issue No. 11, page 2.

[6] IARC Monographs News, March 2025 Issue No. 11, page 2.

[7] https://seer.cancer.gov/statfacts/html/urinb.html

[8] https://seer.cancer.gov/statfacts/html/amyl.html

[9] IARC Monographs News, March 2025 Issue No. 11, page 2.

[10] IARC Monographs News, March 2025 Issue No. 11, page 2.

[11] IARC Monographs News, March 2025 Issue No. 11, page 2.

[12] https://www.wlf.org/2025/05/27/publishing/iarcs-cancer-hazard-classification-of-gasoline-will-fuel-wasteful-litigation/ *See also*, https://www.americanchemistry.com/chemistry-in-america/news-trends/blog-post/2019/the-revised-iarc-monographs-preamble-fails-to-meet-current-scientific-benchmarks-for-evidence-based-decision-making

[13] https://www.lockslaw.com/blog/2025/04/09/iarcs-latest-evaluation-automotive-gasoline-causes-cancer

[14] https://www.lockslaw.com/blog/2025/04/09/iarcs-latest-evaluation-automotive-gasoline-causes-cancer

[15] https://www.lockslaw.com/blog/2025/04/09/iarcs-latest-evaluation-automotive-gasoline-causes-cancer

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