

**Vinyl Council of Australia's written statement regarding the United Nations Environmental Program (UNEP) Zero Draft of the international legally binding Instrument on plastic pollution, including in the marine environment.**

November 6, 2023

As the leading voice of the polyvinyl chloride (PVC) resin, compound, and additive suppliers in Australia, Vinyl Council of Australia (VCA) appreciates the opportunity to comment on the United Nations Environmental Program (UNEP) Zero Draft of the international legally binding Instrument on plastic pollution, including in the marine environment.

PVC is a type of plastic that has critical applications around the world. It is versatile, durable, energy-efficient, cost-effective, and used in everything from water supply and sewage systems to medical devices and healthcare products like IV components and blister pack medications. While there are less-desirable alternatives to PVC in many applications, there are ample situations where PVC remains the only viable option due to its unique combination of properties:

- **Water and Sewage Pipes:** PVC pipes are commonly used in water supply and sewage systems due to their durability, ability to withstand corrosion, and low cost. Alternative materials like metal pipes (e.g., steel or copper) are available but are both more expensive, more polluting in production, and more susceptible to corrosion.
- **Medical Tubing and Devices:** PVC is extensively used in the healthcare industry for medical tubing, IV bags, blood bags, and various medical devices. Its ease of sterilization, clarity, and biocompatibility make it difficult, if not impossible, to replace in these applications.
- **Chemical Resistant Linings:** PVC is used as a lining material in environmental protection and remediation projects to effectively contain solid and liquid materials. Its durability and resistance to a wide range of hydrocarbons and corrosive chemicals make PVC difficult to substitute in applications spanning from mining and ash processing, food processing, and geomembranes protecting lakes and streams.
- **Greenhouses and Agricultural Films:** PVC films and tarpaulins are used in agriculture for greenhouse construction and protective coverings for crops and harvested grain. Their durability and U.V. resistance are key factors that make them hard to replace.

We support efforts to incentivize innovation and call attention to the value of the United Nations Sustainable Development Goals (SDGs). PVC polymer production contributes significantly to these goals by enhancing global efforts to improve health and well-being (SDG 3) through the production of essential medical equipment, ensuring access to clean water and sanitation (SDG 6) through its use in water infrastructure, fostering the development of sustainable cities and communities (SDG 11) by providing durable and resilient construction

materials, providing environmental protection for marine ecosystems (SDG 14), and promoting collaborative partnerships (SDG 17).

Designing an Instrument that discriminates against polymer production would have unintended consequences that could disproportionately impact developing nations, especially those in need of water and sanitation infrastructure, blood collection, healthcare facilities and equipment, irrigation systems, electrification infrastructure, and other public benefit utilities that are produced with PVC. Therefore, VCA opposes any language that bans, restricts, limits, or imposes discriminatory import or export requirements on the primary production of PVC. Instead, we support efforts and language that incentivize the innovation and regulatory landscape needed to transition to a truly circular economy.

**We support an ambitious plan to eliminate plastic pollution through an achievable agreement.**

The Instrument should include attainable and science-backed measures to increase circularity while remaining flexible enough to allow for different solutions to address impacts at the various stages of the lifecycle, and accounting for national circumstances. Prescriptive measures will not accommodate the diversity of consumer and social behaviours, production practices, waste management capacity, and environmental factors across the spectrum of countries that would be bound by this Instrument. Flexibility is essential for innovation and solution-finding. To support and enhance robust science- and evidence-based approaches to the issue of plastic pollution, VCA, along with our industry, strongly encourages consulting with the industry when determining solutions to strengthen the scientific rigor and weight of evidence of any proposal.

**We support the creation of independent national plans of action.**

VCA supports an Instrument that would allow nations to set their own action plans for eliminating plastic pollution. Adapting existing systems to a one-size-fits-all approach will frustrate current working solutions and reduce innovation and solution finding. We support an Instrument that considers each nation's unique legal, economic, and societal environment. We support governmental action plans and policies that would enable the establishment of national targets for reducing plastic waste, increasing the use of recycled content, and prioritizing high leakage applications with specific rates and dates. We believe a country-driven approach is best suited to ensuring meaningful solutions to plastic waste.

A one-size-fits-all approach could have unforeseen consequences, such as:

- removing PVC blood bags from hospitals' supply chains, which will harm the health of the sick by reducing the length of time blood can be safely stored;
- increasing the cost and carbon output from the irrigation of crops currently using PVC pipes, since other pipe materials have larger carbon footprints;

- reducing drought abatement, heightening water insecurity, since other pipe materials corrode and break more frequently, and
- creating unnecessary barriers to achieving global net zero carbon emissions by 2050.

VCA supports nationally determined commitments for waste control and recycling measures, including frameworks for transparency in plastic products that are more likely to be discarded and not recovered in some form. VCA also supports the inclusion of transparency provisions for recycled content in products. We support mechanical sorting and recycling wherever applicable to increase the circularity of durable plastic goods, often designed and produced using a single polymer. Furthermore, VCA supports provisions that require the selection and use of polymers that are made in accordance with AS/NZS, ISO, or other consensus standards that promote transparency and corporate responsibility.

**We support flexibility to achieve circularity and oppose lists of banned or restricted polymers and products.**

Broad bans and restrictions of polymers and products would lead to unintended consequences counterproductive to climate goals, forcing consumers to use unproven products, often with a worse environmental profile and less effective performance properties. To this end, we are concerned about the use of the term “problematic plastics” and the inclusion of lists intended to define “problematic” or “unnecessary” plastics, products, or additives in the Instrument. Unless these terms are used in the context of quantifying how specific products are used and discarded or refer to the quantification of the likelihood of a product being irresponsibly released into the environment, such a list could not be globally applied. The Instrument would be stronger if it instead focused on sustainable production, consumption, collection, and waste management.

To accelerate the just transition to a circular economy, VCA supports measures that foster innovation for responsible production and end-of-life material management, such as deep decarbonization efforts and enhanced industrial wastewater treatment mechanisms. VCA also supports incentives for developing and applying decision frameworks for increasing product sustainability, such as using a sustainable additives selection framework and designing products to promote durability, reuse, and recycling. Since nearly 50% of PVC is used in piping applications designed to last 100 years or more, and more than 75% of PVC is used in applications designed to last decades, most of the PVC ever produced is still in its first useful life. For these reasons, PVC recycling is typically conducted in stand-alone facilities that collect material from manufacturers and construction/demolition companies, before it joins a mixed waste stream that material recovery facilities (MRF’s) are not equipped to handle economically.

Furthermore, the industry is actively taking strides to ensure circularity for the smaller percentage not in durable use and is developing solutions that complement existing waste management capacity. The [PVC Recycling in Hospitals](#) scheme that has successfully operated

in Australia since 2009 is an exemplar program that demonstrates the effectiveness of focusing on PVC waste recovery at point of source.

### **Section-specific comments on the Zero Draft:**

#### **Part I: Preamble (1)**

The Preamble would be strengthened by specifically noting the importance certain plastics, such as plastic polymers, ingredients, and products, have in modern society and their ability to contribute to successfully reaching many of the United Nations (U.N.) Sustainable Development Goals (SDGs). To illustrate, long-lasting, durable plastic pipes help ensure safe, clean, and sanitary water, which is essential for life on earth, and plastic products in construction and transportation help reduce carbon emissions and help ensure the development of sustainable cities and communities.

#### **Part I: Objective (2)**

Narrowing the Instrument's focus would help ensure that its solutions are obtainable and implementable. As such, the Instrument should focus on plastic waste, some single-use plastic applications, and plastic packaging. Expansion of this Instrument to include durable plastic products such as PVC water pipes, which last for more than 100 years, will not only make reaching consensus and developing solutions more difficult but will also negatively impact the ability of many countries, especially developing nations, to achieve the SDGs.

#### **Part I: Definition (3)**

The term "problematic plastics" is subjective and, if used, would only benefit from being included if contextualized into a system of quantifying how specific products are used and discarded, and refer to the quantification of the likelihood of a product being irresponsibly released into the environment. Listing "problematic" or "unnecessary" plastics, products, or additives in the Instrument would be challenging, especially if it were globally applied.

Specifically, defining PVC as a "problematic plastic" is, at best, inaccurate. PVC is versatile, durable, energy-efficient, cost-effective, and has a lower carbon intensity in production and in use than many alternative materials in the applications where it is most relied upon. PVC has unique properties and specific applications that make it an essential polymer if genuine progress toward the U.N. SDGs is to be achieved.

#### **Part I: Scope (5)**

To solve the problem of plastic pollution, VCA supports a narrow scope that addresses the primary causes of waste and pollution. Any overly broad focus will distract from targeted solutions, spread resources too thin, and likely make the final Instrument unimplementable. We recommend that this Instrument address single-use plastic, plastic packaging, and marine waste with a high likelihood of leakage to the environment. The Instrument should not address

all applications of plastics nor impede the use of long-lasting and durable plastic products that stay in use for many years, that can be recycled, and are not feasibly substituted with other products – many of which take a heavier toll on the planet than the products they aim to replace.

Since production limits are outside the scope of UNEA 5/14, the scope of this Instrument should not address or require any reduction of polymer production.

### **Part II: Primary plastic polymers (1)**

VCA supports chemical management systems and regulations that help improve the sustainability of polymer manufacturing and products. We support policies that help lower land, air, and water emission levels that consider sound engineering and socio-economic principles. Reducing PVC polymer production will have unintended consequences that can harm the environment with regrettable substitutions. As such, we oppose any restriction or limits on the production of PVC polymers.

### **Part II: Chemicals and polymers of concern (2)**

The vinyl industry in Australia partners with the government to ensure compliance with applicable regulations regarding our products' safe manufacture, reporting, and use. We support strong chemical management systems, such as those we operate under in Australia.

We support strong scientific research into any listing of polymers, ingredients, chemicals, or products of concern. Such research must be peer-reviewed and must consider alternatives to the item being reviewed. Research must also be conducted narrowly rather than with large groups of similar chemicals, so we do not eliminate possible future solutions and technological advances. Classifying PVC as a “polymer of concern” is inappropriate, inaccurate, and will cause unintended substitutions with greater potential environmental harm.

Additives in PVC are essential to product performance across a wide range of applications, and a blanket label of “concern” could detrimentally impact the beneficial uses of PVC. The VCA's [PVC Stewardship Program](#) has provided a framework for the Australian vinyl industry to progressively address and improve relevant environmental, health and safety issues associated with the life cycle of PVC, including phasing out harmful additives such as lead, cadmium and hexavalent chromium in PVC products to ensure consumer trust and healthy use of their products.

### **Part II: Product design, composition, and performance (5)**

VCA can provide technical advice and assistance as product design and composition are considered, for example, when reducing unnecessary packaging (plastic, metals, glass, or paper).

Regarding medical devices and prescription medication packaging, some plastic may be preferred. Blister packs for medicine can help ensure that vaccines are delivered safely, with minimum waste or contamination. Prescription pills often require a water vapor barrier, which is important for tablets since the active substance of the tablets must be consistent all over the world. Medications must be protected from environment humidity and temperature changes during transport and logistics operations to prevent changes in active ingredients and ensure efficacy at point of consumption. The combination of rigid PVC films with aluminium covers is a well-functioning system. Easy handling by simply pushing the tablet through the aluminium foil can also be produced to be childproof. Plastic used in prescription medicine delivery or medical devices may need an exemption in this Instrument.

PVC meat wrap is a proven method to preserve and protect meat from pathogens causing food-borne illness. PVC produce film delivers naturally-permeable packages, accommodating transmission of oxygen and carbon dioxide, and a rate of moisture–vapour transmission that guards against excess moisture loss whilst allowing the dispersion necessary to avoid fogging. PVC film also facilitates the release of ethylene gas, slowing the ripening process of fruit and vegetables extending shelf life and reducing food wastage. Any ban or restriction on PVC food wrap could have unintended health consequences. According to the U.N. report on the State of Food Security and Nutrition in the World, “between 691 and 783 million people faced hunger in 2022...representing an increase of 122 million people compared to 2019... potentially jeopardizing the Sustainability Development Goal of ending hunger.” Removing a critical method of preserving fresh produce and meat is antithetical to the U.N. SDGs, specifically SDG 2 on zero hunger, nutrition, and food security, as well as SDG 3 on good health and well-being.

## **Part II: Use of recycled plastic contents (5c)**

We support the use of recycled plastic content. Recycled plastic is valuable and is a resource that should be reused – not discarded. PVC can be recycled repeatedly. Because of its unique composition, PVC can also be mechanically recycled into many other PVC products. Our technical expertise in PVC recycling gives us the background to offer the importance of allowing flexibility in recycled content applications. National codes and practical implications may limit the ability of recycled content in specific products or applications. For example, in high-pressure clean drinking water systems, recyclate is not permitted in PVC pipes due to the consequences of potential failure in high-pressure systems. Recyclate may be preferred on some products’ interior layers and discouraged on others’ outside layers. Industry is ready and able to assist national action plans to help determine appropriate uses for recycled content in PVC products.

## **Part II: Trade in listed chemicals, polymers, and products and plastic waste (10)**

Attempts to limit PVC resin exports from manufacturing countries will harm the Australian economy and increase prices for developing nations who want to use it for high-quality PVC products like water pipes. If the export or import of PVC resin is limited, there is a possibility that global PVC production will shift to nations with fewer chemical management schemes and/or poor emission regulations.

## **Part III: Capacity-building, technical assistance, and technology transfer (2)**

While protecting confidential business information and being mindful of intellectual property rights and antitrust restrictions, the VCA supports cooperating on technical matters necessary to prevent plastic pollution.

## **Part IV: National plans (1)**

The VCA supports national plans instead of global agreements that do not account for local and regional differences.

## **Part IV: Review of chemicals and polymers of concern, microplastics, and problematic and avoidable products (4c)**

Any review of chemicals or polymers must be conducted using a systematic review of scientific studies. We recognize the importance of and support using robust science and evidence-based approaches in how parties act on plastic pollution; we strongly encourage the inclusion of industry sources to strengthen the scientific rigor and weight of evidence of any position.

## **Part IV: Stakeholder engagement (8)**

VCA is ready to assist INC delegations and UNEP staff by providing information on responsible PVC production, recycling, and polymer science during the INC process. We are optimistic that private-sector stakeholder engagement could result in a more informed, science-based, and achievable Instrument. We look forward to continued participation and maintain an open invitation to promote dialogue.

## **Appendix: Possible annexes to the Instrument**

Prescriptive measures will not accommodate the diversity of consumer and social behaviours, production practices, waste management capacity, and environmental factors across countries. We recognize the importance of and support using robust science and evidence-based approaches in how parties act on plastic pollution and strongly encourage the inclusion of industry sources to strengthen the scientific rigor and weight of evidence of any position. Therefore, VCA opposes possible annexes that ban or prohibit PVC, ingredients, or products.