

SG02: Reducing our Environmental Impact



Climate change is one of the biggest threats facing mankind in modern history. South Africa's petrochemical sector is highly dependent on fossil fuels and is a significant contributor to the country's total emissions. While the polymer sector is an off-taker of the petrochemical industry, there is increasing pressure to reduce the carbon intensity of our operations.

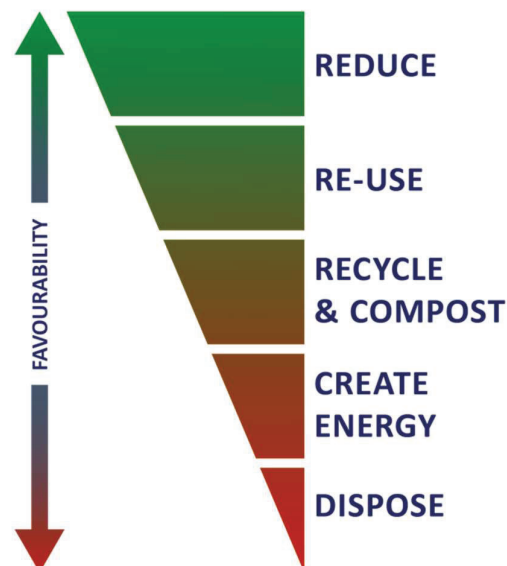
Safripol's environmental efforts are strongly aligned to the 2015 Paris Agreement of net-zero carbon emissions by 2050, with a 50% reduction by 2030.

Priority SDG Goals

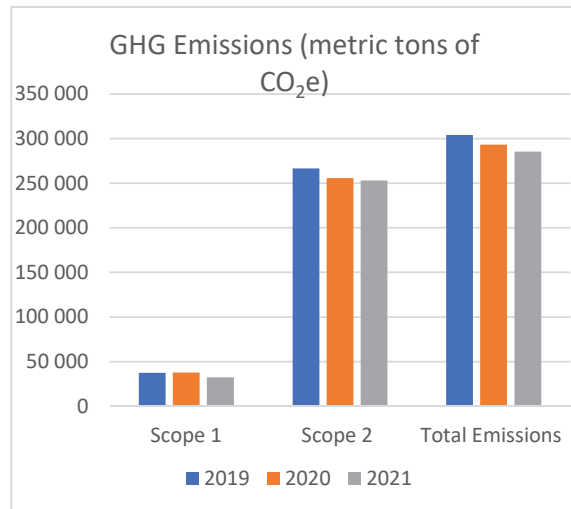


Our environmental approach is guided by the Waste Hierarchy which is aligned with the circular economy principles. Our goal is to sustainably manage our raw materials, energy, water and waste resources, in a manner that is responsible and protects People, Planet and Profit, without compromising future generations to meet their needs. Our approach builds upon our operational excellence and leverages opportunities across our energy, water, waste and carbon emissions.

We are focusing on reducing consumption of all finite precious resources across all our operations in line with Reduce, Re-use and Recycle.



Measuring our Environmental Indicators



GHG Emissions (metric tons of CO ₂ e)			
Year	2019	2020	2021
Scope 1	37 326	37 653	32 271
Scope 2	266 679	255 592	253 101
Total Emissions	304 005	293 245	285 372
Environmental Impact Intensity per ton of production			
Year	2019	2020	2021
GHG Intensity (tons / tons)	0.62	0.63	0.66
Energy Intensity (MWh / tons)	0.38	0.38	0.40
Water Usage Intensity (kL / tons)	1.59	1.55	1.55
Waste Generated Intensity (tons / tons)		0.01	0.01
Waste generated on site (tons)			
Year	2020	2021	
Total Waste (tons)	3 453	4 721	
Hazardous Waste (tons)	238	783	
Non-Hazardous (tons)	3 215	3 938	

The methodology used for quantifying our greenhouse emissions was based on the Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry: A Companion to the South African National GHG Emissions Reporting Regulations, 2017, and followed the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines, the South African GHG Standard. Scope 1 emissions accounts for our direct emissions from both our Sasolburg and Durban production facilities and Scope 2 reflects purchased electricity and steam consumption for our facilities. Our environmental reporting was aligned between our facilities during the 2019 financial year, enabling harmonised and consistent reporting for the division, across greenhouse gas emissions, energy and water indicators. For our waste data a consistent waste reporting methodology was implemented in 2020.

Increasing our energy efficiency

We are prioritising initiatives to reduce our energy consumption. One of the initiatives which was implemented across all our facilities is the replacement of the traditional fluorescent tube fittings with LED lighting, which is environmentally friendly, producing low heat, and is noise-free. This initiative has energy and cost savings and goes a long way in achieving our overall objectives of lowering our carbon footprint.

Safripol's approach to renewable energy



Taking action to reduce our carbon footprint, is not only important for people and the planet but it is also critical for business.

Renewable energy will be a significant component of our energy mix over the next decade, as it would allow us to lower our carbon footprint, as well as reduce operational costs.

We have fully scoped a project for a 10MW photovoltaic plant capacity at our polyolefins facility in Sasolburg, and are investigating options for our PET facility in Durban.

Evaluating the life cycle assessments of our products

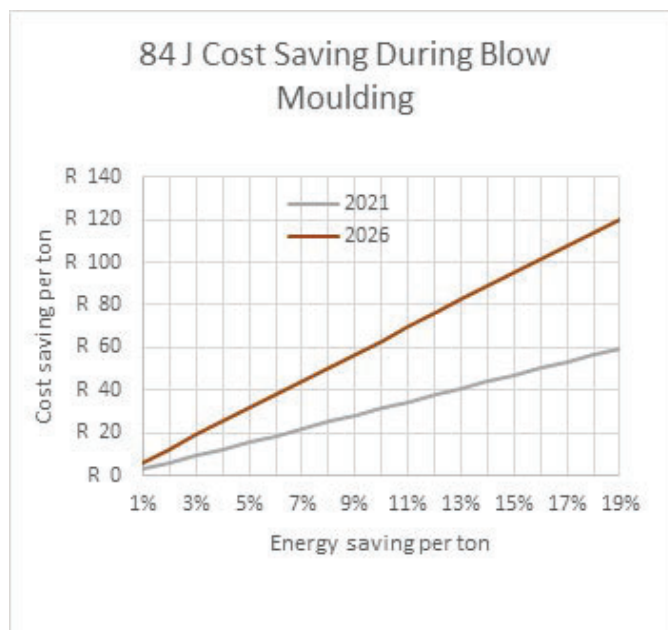
Our customers and brand-owners want to make an informed decision on which materials to use in their product portfolio based on carbon footprint and key environmental indicators.

In line with our commitment to plastic responsibly, Safripol is keen to gain an understanding of the life cycle environmental impacts associated with its own polymer products for its cradle to gate operations.

Life Cycle Assessment (LCA) is a standardised method based on ISO 14044:2006, which assesses and compares all inputs and outputs for a product, and assigns potential environmental impacts across a product's life cycle. LCA's are recognised as important tools in assessing the environmental impact and sustainability of products, and is being more increasingly used for decision-making on packaging options.

Recently we have commissioned an LCA of our products in partnership with The Green House, which is the leading authority on LCA in the country. The study intends to provide reliable life cycle data on Safripol's HDPE, PP and PET polymer products for its cradle-to-gate operations. This study is currently underway and is expected to be completed during the second half of 2021.

Reducing energy consumption for our customers



While we are primarily focussing on reducing our own environmental impact, we also realise that our polymers also impact the environmental footprint for our customers. This is why we developed the next generation fast reheat resin which has been commercialised as Aspire® 84J.

Aspire® 84J allows energy saving during the blow moulding process of the container compared to the previous generation fast reheat material.

The energy-saving achieved with the Aspire® 84J compared to the previous generation is between 8% to 15 %, depending on heat/ blow moulding technology. Cost savings during blow moulding is also expected to increase further by 2026 due to expected electricity costs increases.

Zero plastic pellet, flake and powder in the environment



Safripol has made a commitment to the Operation Clean Sweep® (OCS) pledge. OCS is an international environmental stewardship project, with the aim to prevent the leakage of plastic pellets, flakes, or powder into the environment. Plastics SA is the licensee for Operations Clean Sweep in SA.

Zero resin leakage into the environment can only be truly realised if the entire value chain is mobilised around this cause. Safripol, therefore, encourages all our customers and stakeholders to also take the OCS pledge.

Safripol handles plastic powder and pellets during various points in its manufacturing process, which includes powder manufacture, granulation, bagging and not forgetting during transportation of our finished products to our customers. With a total polymer production capacity of 540Kilotons annually, we believe that Safripol has an important role to play to ensure that zero plastic is leaked into the environment at any point during its production or use.

Safripol has taken the OCS pledge and is now a formal signatory. The OCS pledge aligns with Safripol's **"Let's Plastic Responsibly"** campaign, which advocates for the responsible use of plastics. The signing of the pledge demonstrates Safripol's leadership and commitment to keeping plastic resin out of the environment and ensuring that plastic remains a resource in the materials loop.



Safripol has already implemented most of the interventions suggested in the OCS toolkit, developed by Plastics SA. Safripol's polyolefin facilities are ISO 14001:2015 and ISO 45001:2018 certified and our PET facility is currently implementing protocols for ISO 14001 and 45001 certifications to ensure that optimal environmental waste management and health and safety practices are implemented throughout its operations. Safripol's polyolefin and PET facilities are ISO 14001:2015 certified, which ensures that optimal environmental waste management practices are implemented throughout its operations. Additionally, to minimise possible exposure to pellet leakage in their supply chain, Safripol also has emergency clean-up protocols in place with all its approved distributors to ensure that no resin is lost during distribution. As a polymer producer, Safripol believes that this is only one of many steps the plastics industry as a whole needs to take to ensure we shape our world responsibly for the future.

Safripol takes the Call for Action and launches Separation at Source



Safripol has taken the call for action and has implemented separation at source (SAS) of post-consumer waste across all of its facilities.

Safripol's SAS programme demonstrates its leadership to zero leakage into the environment. It commits all Safripol employees, its contractors and visitors to our sites, to separate recyclable materials.

Plastic is an economic resource that should remain out of the environment and landfills and should be recovered for maximum use in the circular economy. One of the biggest challenges facing recycling initiatives is the contamination of high-value materials with food and organic waste and other contaminants. This happens when waste is mixed and not efficiently separated at the source. The situation is much worse when recyclables end up in the environment or landfills where high-value materials are lost to the industry due to contamination. Additionally, contaminated recyclables consume valuable resources like water during the decontamination process for recycling.

Separation at source of plastic waste at the point of disposal is an effective solution in ensuring that at end of use, plastics are kept clean, and remain at their highest value, to enable quality plastic recyclates for reuse back into the economy. In line with this best practice, and our "Let's plastic responsibly" campaign, we recently launched our separation at source programme for post-consumer waste across all of Safripol's sites. Our employees showed their commitment by handing in their mixed waste office bins and committed to using the colour-coded recycling bins.



Safripol's SAS initiative encourages all its employees, contractors and visitors to our sites to do the right thing, and separate their post-consumer waste at source at work and their homes. All of the plastic, paper, tin, and glass recyclables recovered from Safripol's SAS programme across all sites, are distributed to nearby buy-back centres/recyclers for processing back into the economy.

SAS launch was a much-anticipated event in Safripol's 2021 calendar



Safripol's SAS launch took place separately at the Sasolburg, Durban and Bryanston sites, and was a much-anticipated event in our 2021 sustainability calendar. Each event had its own unique style which was site-specific but it all showed **One Safripol, One Team, One Vision**, with three spectacular days filled with education, comradery, holy powders, fireworks, singing along to the Mzansi youth choir, awesome food, and was all-round great fun.

