HENKEL ADHESIVE TECHNOLOGIES

SUSTAINABILITY PORTFOLIO ASSESSMENT METHODOLOGY

2025

Henkel

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1. Introduction

1.1 Strategic context of Portfolio Sustainability Assessment in HAT

Commitment to sustainability has been an integral part of Henkel's corporate culture for many decades—and the company has underscored that commitment by making sustainability a central element of its purpose: *Pioneers at heart for the good of generations*. Henkel is truly dedicated to leadership in sustainability. As a leader, the company aims to pioneer new solutions for sustainable development, while continuing to shape its business responsibly and increasing its economic success. That ambition is the driving force behind Henkel's sustainability strategy: Henkel wants to actively drive the transformation to a sustainable economy and society, for the good of present and future generations.

The Henkel Adhesive Technologies (HAT) business unit translates the company's overarching purpose into real-world action—and makes sustainability happen. HAT embraces its responsibility to contribute to solving the enormous challenges the world is facing by enabling sustainability through material science and scientific knowledge related to bonding, sealing and coating. Innovative thinking and entrepreneurial spirit are deeply rooted in its identity. By combining technical materials expertise and science-based innovation, HAT's teams enable the transformation of entire industries, giving its customers a competitive advantage and offering unique experiences to consumers. As an industry and application expert across manufacturing industries worldwide, HAT works closely with its customers and partners to create sustainable value for all stakeholders—with trusted brands and high-impact solutions based on an unmatched technology portfolio.

The HAT portfolio sustainability assessment approach is one of the key contributors that drive this sustainability ambition. The product sustainability data created via this approach supports HAT in future-proofing its business by facilitating informed management decisions, fostering sustainable innovation and positioning of our sustainable products in the marketplace. It also supports HAT's open and transparent communications about sustainability with customers and consumers.

1.2 Definition of Portfolio Sustainability Assessment

HAT developed its portfolio sustainability assessment approach in 2020 as a baseline for the strategic steering of its product portfolio. It is now an important backbone for the holistic transformation of HAT's portfolio towards making a positive impact. The methodology of this assessment approach uses a framework developed in-house that is largely based on the guidance from the World Business Council for Sustainable Development.

The assessment approach is conducted on the product level against defined sustainability criteria. It clusters individual products into internally defined classes. As a result, HAT gets a comprehensive overview of its portfolio and its sustainability performance. Insights from this overview are integrated into business steering processes. That includes processes to define innovation and business strategies, as well as portfolio management and customer engagement strategies.

1.3 Objectives of Portfolio Sustainability Assessment

The objectives behind HAT's portfolio sustainability assessment approach reflect internal and external requirements for transparency.

From an internal perspective, the results of HAT's assessment approach create an organization-wide understanding of the sustainability performance of its portfolio by sorting all products into clearly defined sustainability classes. The assessment framework and the underlying criteria of its approach are based on the HAT Sustainability Ambition 2030+. For this reason, the results of the approach enable HAT to steer its products toward more sustainable classes and support progress toward achieving its sustainability targets. End-to-end integration of those results into HAT's market strategy, portfolio steering, innovation process and customer-facing functions helps to ensure that accountability is anchored within the organization. In this way, the business continuously improves the sustainability performance of its portfolio with regard to topics that are relevant for its customers' industries—and HAT makes contributions to solving global challenges.

The methodological foundation of the HAT portfolio sustainability assessment approach is regularly updated to ensure continuous alignment with its sustainability strategy, while also making certain that the approach incorporates upcoming regulatory and disclosure-related requirements. In combination with regular external audits, this allows HAT to use the data for external reporting purposes. All identified sustainability benefits are substantiated through specific proof documents. For this reason, HAT is able to integrate results and underlying approved data into its customer communications. In this way, those results and data act as the basis for the sustainability benefits and Unique Selling Points that are presented to customers as each product's value proposition.

2. Portfolio Sustainability Assessment Methodology

Henkel Adhesive Technologies (HAT) ensures all products comply with applicable legal requirements, as well as complying with in-house codes and standards. However, these compliance-related measures are only the mandatory minimum that HAT achieves in order to secure its license to operate.

HAT goes far beyond compliance to take a leading role for sustainability. The HAT portfolio sustainability assessment approach is a key element of this more ambitious and far-reaching work.

This approach evaluates products that accounted for at least 80 percent of HAT's net sales over the previous two-year period. Products that have not yet been assessed or for which the underlying data is unavailable represent a maximum of 20 percent of HAT's total net sales in the assessment year. Overall, this approach aims to identify negative and positive impacts on sustainability for each product. HAT repeats the assessment process every two years and conducted it for the third time in 2025.

Importantly, the HAT portfolio sustainability assessment approach is regularly updated to reflect the latest Henkel sustainability ambitions and market developments. In this way, the business ensures that it is always driving change in line with key factors that are shaping its industry—and the industries of its customers. HAT will continue to adapt and develop its portfolio sustainability assessment approach as more changes arise in the future. More detailed information about the update procedure is available within chapter 3.5 of this document.

This chapter provides an overview of the methodology involved in the HAT portfolio sustainability assessment approach.

2.1 Sustainability Classes

The HAT portfolio sustainability assessment approach is aligned with the overarching sustainability strategy for HAT. It considers contributions to climate, circularity, safety and nature. Each product in the HAT portfolio is assessed for its specific sustainability-related risks and opportunities. Each product is then assigned to one of four sustainability classes: Transitioner, Performer, Contributor or Pioneer. By mapping the sustainability contributions from its portfolio in this way, HAT drives continuous improvement based on up-to-date data and a uniform process.

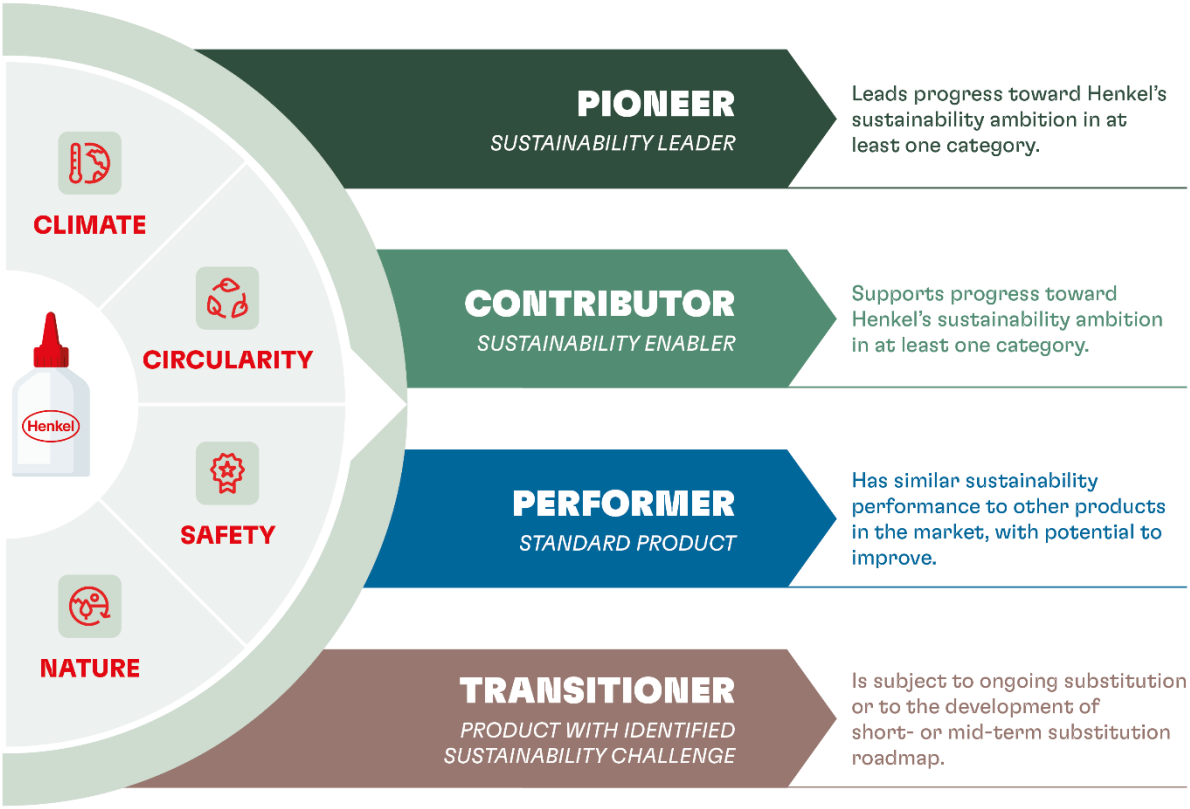

Illustration 1: Definition of the Sustainability Classes

Descriptions of the four sustainability classes are available below.

Transitioner – Product with identified sustainability challenge:
Is subject to ongoing substitution or to the development of short- or mid-term substitution roadmap.

Products in this class may contain substances of very high concern (SVHCs) as defined by the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) program—above a clearly defined threshold level. This approach is aligned with our CSRD reporting and prepares us for possible future tighter regulation. More information about the process for checking sustainability risks is available in chapter 2.2.2 of this document.

In addition, some products in this class may contain a hazardous substance that is not yet covered by the REACH program—but that HAT has decided to phase out in the short-term or medium-term as part of its commitment to going beyond compliance to take a leading role for sustainability.

Performer – Standard Product:
Has similar sustainability performance to other products in the market, with potential to improve.

Products in this class may be free from the type of substance defined above—but may be unable to prove any significant sustainability benefit. In this case, the product is deemed to lack sustainability-related risks while also lacking sustainability opportunities.

Alternatively, products in this class may contain substances with a Tier 2b classification as explained in chapter 2.2.2 and documented in annex 1. These substances are typically common to use within the chemical industry, which means there is a lower risk that these substances will face tighter regulation in the near future. However, they may face a risk of increased scrutiny initiatives within specific markets or of potential changes in public perception. HAT treats the use of these substances responsibly by ensuring awareness and transparency of their safe and sustainable use at the global and local or market-specific level. Products containing these substances above the defined thresholds are excluded from entering the Contributor or Pioneer class. More information about the process for checking sustainability risks is available in chapter 2.2.2 of this document.

Contributor – Sustainability Enabler:
Supports progress toward Henkel's sustainability ambition in at least one category.

Products in this class do not contain substances with a Tier 1 or 2 classification as explained in chapter 2.2.2 and documented in annex 1—above a clearly defined threshold level. They also make a positive contribution to sustainability within one of the focus topics from the overarching sustainability strategy for HAT. In this way, the company asserts that these products are supporting the sustainable transformation of its business and enabling some progress toward its sustainability-related targets for 2030. The positive contribution must be demonstrated and documented by a relevant proof document. More information about the process for checking sustainability opportunities is available in chapter 2.2.3 of this document.

Pioneer – Sustainability Leader:
Leads progress toward Henkel's sustainability ambition in at least one category.

Products in this class do not contain substances with a Tier 1 or 2 classification as explained in chapter 2.2.2 and documented in annex 1—above a clearly defined threshold level. They also make an outstanding positive contribution to sustainability within one or more of the focus topics from the overarching sustainability strategy for HAT. These sustainable innovations are already fully aligned with HAT's sustainability-related targets for 2030. Positive contributions must be demonstrated by a relevant proof document. More information about the process for checking sustainability opportunities is available in chapter 2.2.3 of this document.

2.2 Portfolio Sustainability Assessment Flow

The Henkel Adhesive Technologies (HAT) portfolio sustainability assessment approach is structured around two key phases. In the first phase, sustainability risks are assessed. In the second phase, sustainability opportunities are evaluated. The criteria for both phases have been defined based on the focus topics from the overarching sustainability strategy for HAT and based on an understanding of the material topics for each product and the industry it serves. Evidence is collected to provide documentary proof of all positive sustainability contributions. Each product is then assigned to one of the four classes mentioned earlier in this document.

This chapter provides detailed descriptions of the process steps, assessment criteria and thresholds for the HAT portfolio sustainability assessment approach.

2.2.1. Process overview

The two-step process for the HAT portfolio sustainability assessment begins by checking sustainability risks. This analyzes how the chemicals within each product impact health, safety and the environment during the application and end-use of HAT products. The evaluation is based on the use of certain potentially hazardous substances—above clearly defined threshold levels. If they contain the substances defined by the prerequisite criteria to a relevant extent, products are excluded from the Contributor and Pioneer class. Instead, they are classified as a Transitioner or a Performer.

In the second step of the process, products that do not contain any of the substances mentioned above by the prerequisite criteria are assessed in terms of sustainability opportunities. This analyzes positive contributions that each product makes in the area of climate, circularity, safety or nature—backed by solid documentary proof. The evaluation involves a set of qualifying criteria and thresholds that define whether a product is assigned to the Performer[1], Contributor[2] or Pioneer[3] class.

After completing these two phases, each product is assigned to one of the four classes mentioned earlier in this document (see chapter 2.1).

[1] In case there is no proven sustainability benefit.

[2] In case there is a relevant positive contribution towards HAT sustainability ambition.

[3] In case the product sustainability benefit is already in line with HAT sustainability ambition.

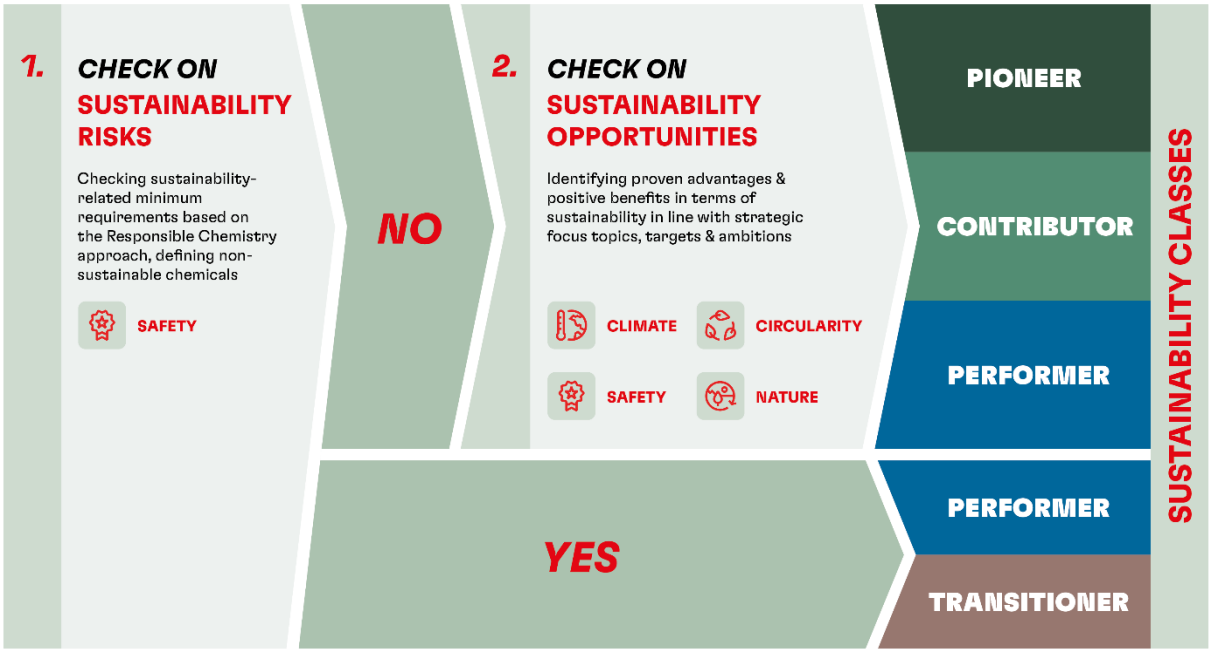

Illustration 2: Portfolio Sustainability Assessment Process Overview

2.2.2. Check of Sustainability Risks

Henkel Adhesive Technologies (HAT) places a sharp focus on continuously enhancing the safety of its product portfolio. The Adhesive Responsible Chemistry (ARC) approach is a core part of this work. It is used during the first step of HAT's process for assessing sustainability-related risks. The primary objective of ARC is to reduce the hazard from chemical substances used in the formulations of HAT products and to facilitate safety across all stages of the lifecycle.

Hazard is defined as the intrinsic property of a substance to potentially cause harm and it is considered independent of exposure. **Risk** is defined as the probability of harm occurring based on exposure.

Most companies use an industry-standard approach that predominantly applies risk assessment as the primary decision criterion.

HAT goes beyond the industry-standard risk-based approach. Its ARC approach is constructed around a hazard-based methodology, rather than a risk-based methodology. The ARC prioritizes the elimination or substitution of hazardous substances—irrespective of exposure level. This is aligned with a "safe-by-design" approach that proactively seeks to protect users and end consumers when designing or formulating products.

Before evaluating product sustainability contributions, all substances are assessed for their potential impact on human health and safety throughout their lifecycle. This assessment serves as a prerequisite for further sustainability screening and portfolio steering.

HAT's methodology involves the following decision-making steps:

1. Chemical substances (CS) are grouped into hazard-based categories known as Chemical-Tiers, which reflect their intrinsic potential to cause harm.

2. Building on this classification, finished products (defined as mixtures of multiple chemical substances present at specific concentrations) are classified into Product-Tiers that are determined by the highest hazard tier of any chemical substances present above its defined threshold.
3. The Product-Tier is a decisive factor in defining which sustainability class a product is allocated into because it serves as a boundary-defining criteria. This means products that are grouped into certain Product-Tier categories are excluded from achieving certain (higher) sustainability classes.

2.2.2.1. Classification of Chemicals

The first step of the ARC methodology for assessing sustainability risks involves classifying all chemical substances and mixtures that are used in formulations of our products into four clusters—known as Chemical-Tier (Illustration 3). External and independent scientific lists of chemical hazards, such as the Global Harmonized System (GHS), are the main sources used when classifying chemical substances and mixtures into these Chemical-Tiers.

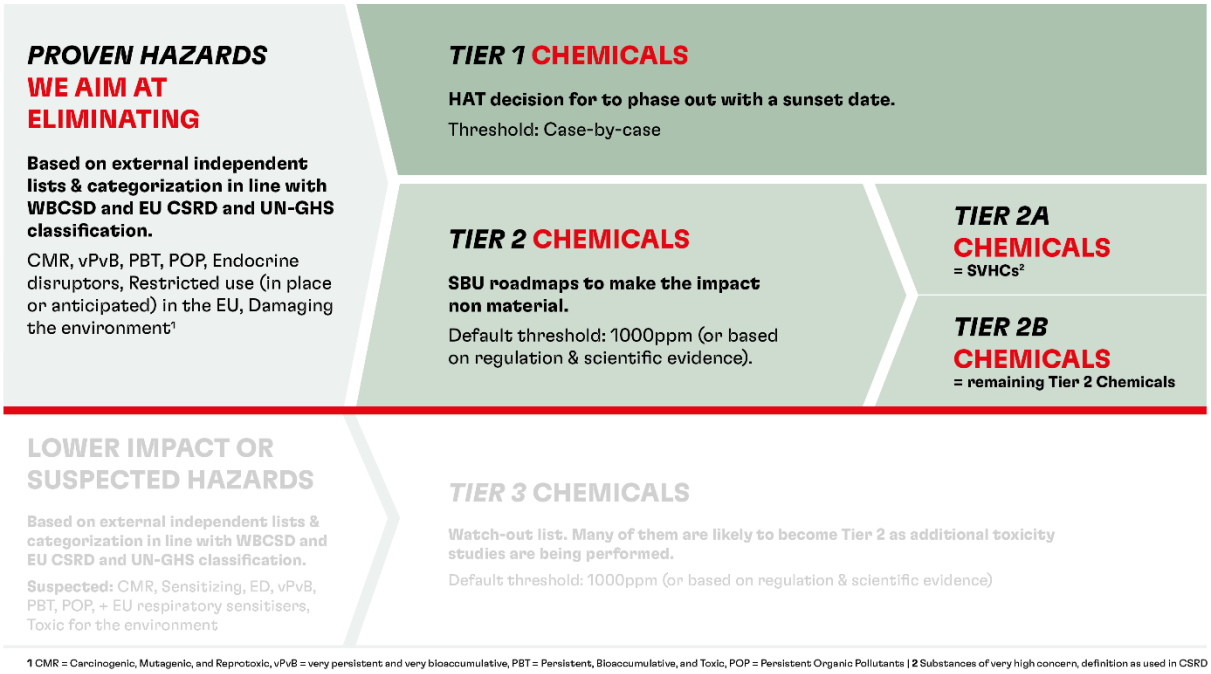

Illustration 3: Classification of Tier Chemicals

The clusters and their respective sources are described below:

- **Tier 1:** This cluster includes chemical substances that are either scheduled for restrictions under forthcoming legislation or that are likely to be subject to restrictions under forthcoming legislation, as well as chemical substances that HAT has proactively decided to phase-out. Tier 1 is the only cluster that can override all other tiers. It is primarily driven by HAT's business priorities and expectations for future regulatory restrictions, but it is also closely aligned with the hazard-based analysis that drives Tier 2 and Tier 3—because this hazard-based analysis informs HAT's decisions about which chemical substances to phase out.

- **Tier 2:** This hazard-based cluster contains chemical substances that are classified as Substances of Very High Concern (SVHCs) and Chemicals of (High) Concern. It is divided into two subclusters. Chemical substances in the subcluster **Tier 2a** are listed as SVHCs, as defined by the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) program. They require external communication in line with the European Union's Corporate Sustainability Reporting Directive (CSRD) but are not yet classified as Tier 1. Chemical substances in the subcluster **Tier 2b** have similar significant and proven hazards as chemical substances in Tier 2a, but they are not yet classified as SVHCs and HAT has not yet classified them as Tier 1. More details about the definitions of chemical substances within Tier 2a and Tier 2b are provided in the Annex 1 of the document.

- **Tier 3:** This is also a hazard-based cluster. It contains all chemical substances that present a lower impact or are considered as suspected hazards. Over time chemical substances of this tier may move to Tier 1 or 2 based on evolving toxicological evidence. More details about the definitions of chemical substances within Tier 3 are provided in the Annex 1 of the document.

- **No Tier**: This cluster contains all of the chemical substances that do not belong to any of the other Tiers because they do not present a significant known hazard when used in adhesives.

In line with HAT's commitment to ensuring safety, every chemical substance is always allocated to the Chemical-Tier with the highest hazard. That means that if a chemical substance is listed on various external and independent scientific lists of chemical hazards that would each classify the chemical substance into different Tiers, that chemical substance is allocated to the Chemical-Tier that corresponds to the highest hazard.

2.2.2.2. Presence of Chemicals in Products

Real substances (RS) represent the composition of chemical substances inside a finished product. To comprehensively evaluate the sustainability risk of a specific product formulation, the classification of the chemical substances must be considered at real substance level. In this consideration, the concentration of each chemical substance plays a critical role in determining the final Tier of the real substance and accordingly the finished product. In line with HAT's commitment to ensuring safety, every product is always allocated to the Tier of the chemical substance with the highest hazard that is present at a concentration level that exceeds the defined threshold. Chemical substances present below the defined threshold are not considered in the Tier assignment of the product. For chemical substances classified as Tier 2 (a and b) or Tier 3, the default threshold of 1000 ppm is applied. In contrast, substances in Tier 1 are subject to case-by-case threshold definitions that reflect their higher level of concern.

Illustration 4 shows an example of this approach. A product that is composed of five different chemical substances needs to be classified into a specific Tier. Once all relevant chemical substances have been assessed and assigned to their respective Tiers, the product inherits the Tier of the most hazardous chemical substances that exceeds its concentration threshold.

In this example, all chemical substances are present in the product at concentrations above their defined thresholds. As a result, the presence of a Tier 1 chemical substance above its threshold leads to the classification of the entire product as Tier 1.

2.2.2.3. Translation into restrictions of sustainability classes

The final step involves translating the assigned Tier of a product into a sustainability class. The classification of the product limits the best possible sustainability class that a product can achieve. A Tier 1 product is always allocated to the Transitioner sustainability class. A Tier 2a product is also allocated to the Transitioner sustainability class (with some exemptions in special cases). A Tier 2b product cannot achieve a higher sustainability class than the Performer class (with some exemptions in special cases). Details about how exemptions are granted can be found in Chapter 2.2.2.4.

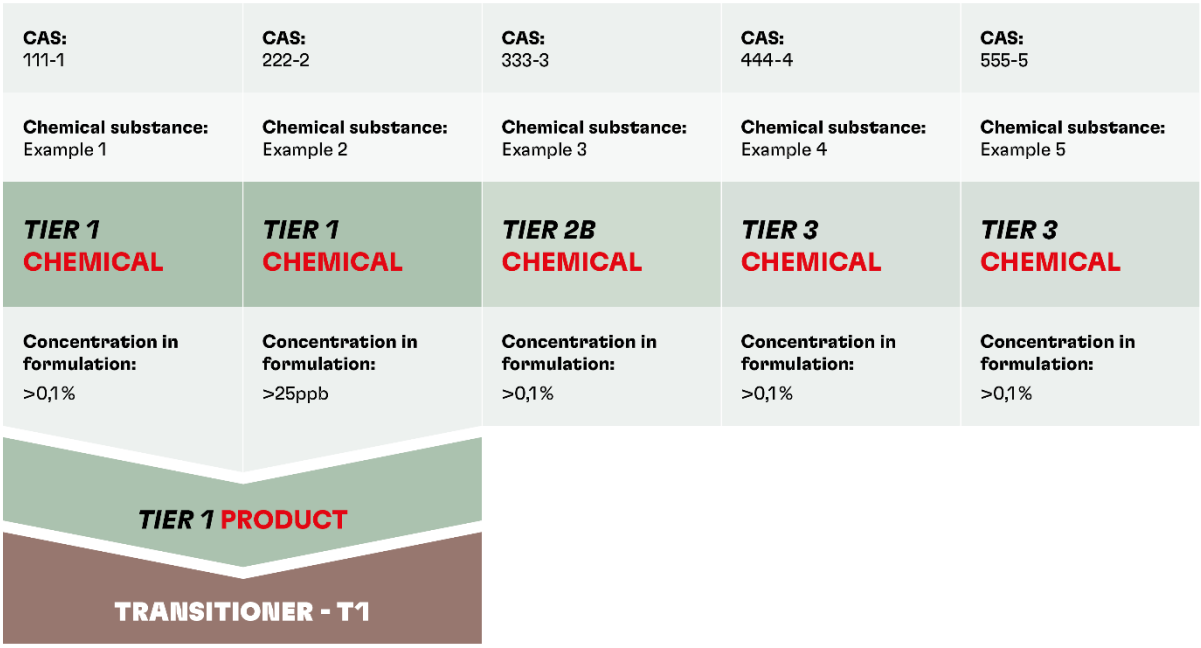

Illustration 4: Logical connection between Tier Chemicals, Tier Product and the Responsible Chemistry Pre-Flag

2.2.2.4. Exemption process

The ARC follows a hazard-first approach. However, this approach can overestimate the potential risk in some specific cases. To address this overestimation of potential risks, HAT operates a more granular approach for some specific cases. This process is called the exemption process.

The exemption process considers detailed reasons why HAT believes that a product is not materializing in a risk, even though it contains a hazardous chemical substance. While exemptions are an important tool to refine HAT's *portfolio sustainability assessment method,* HAT's priority is to remove hazards wherever possible.

Exemptions are applied with a focus on HAT's downstream value chain. This means evaluations of possible exemptions assess the product up until the moment when it leaves the HAT factory gates.

- **Exemption Level 1 (L1):** Chemical substances (CSs) in this level are safe in adhesives. Toxicological and ecological assessments conducted by the internal and independent Ecology and Toxicology department shows that the use of this CS in adhesives is safe up to a defined concentration. This concentration is used in place of the default threshold for the Product-Tier. If the final product does not contain any other hazardous chemicals, it can be eligible for allocation into the Pioneer class.
- **Exemption Level 2 (L2):** Products in this level are safe by design. None of the potential hazards related to the CSs contained in the product can materialize in the HAT product when it leaves the factory gates—whether the product is used as intended or not. Experts from HAT's Regulatory team work with toxicologists, eco-toxicologists and the central HAT Sustainability team to evaluate this possible exemption. Their decision must be ratified by the Head of Product Development in the relevant HAT Strategic Business Unit (SBU). Products that receive this level of exemption are eligible for allocation into the Contributor class.
- **Exemption Level 3 (L3):** Documented proof shows that products in this level are used in a safe manner. This means that the hazardous CS is not present in the finished product when it reaches the consumer. It also means that the HAT product is processed in line with state-of-the-art chemical safety standards that protect people and the environment. If it is not possible to agree this level of exemption for a product worldwide, SBU teams can assess the specific conditions during the use phase at a specific customer's site—and can then request a time-limited exemption. That exemption request is then evaluated and a recommendation is provided by the ARC team. The decision is made by the Director of Sustainability Strategy and Excellence within the HAT Sustainability department and could be adjusted by SBU Lead with specific reasoning. All exemptions are documented and reviewed shortly before they expire. Products that receive this level of exemption are also eligible for allocation into the Contributor class.

2.2.3. Evaluation of sustainability opportunities

After the sustainability risk evaluation phase is complete, products enter the sustainability opportunities evaluation phase—if they do not contain any potentially hazardous substances that exclude them from the Contributor and Pioneer class, as defined by the prerequisite criteria or if they do have a documented exemption.

The evaluation of sustainability opportunities analyzes positive contributions that each product makes to the categories of climate, circularity, safety or nature—backed by solid documentary proof. The evaluation involves a set of qualifying criteria that define whether a product is assigned to the Contributor or Pioneer class. Assessors follow a uniform, step-by-step approach to check the sustainability opportunities of each product.

To demonstrate relevant benefits in the climate category, products must show that they create emissions reductions throughout their lifecycle. They are evaluated in terms of cradle-to-gate carbon footprint reductions, CO_2 emissions savings in the application phase or CO_2 emissions savings. In some specific cases, the whole cradle-to-grave footprint is analyzed.

To demonstrate relevant benefits in the circularity category, products must show that they contribute to circular economy principles and keep valuable materials within the economic cycle. They are evaluated in terms of their formulation and packaging, as well as their capacity to enable circularity in customers' operations and in the context of the finished product.

To demonstrate relevant benefits in the safety category, products must show that they enhance health and safety along the value chain either by removing potentially hazardous substances to an even bigger extent than defined within the risk assessment step or by their capacity to boost health and safety by their functions and specific uses.

To demonstrate relevant benefits in the nature category, products must show that they enable the preservation and protection of the environment. They are evaluated in terms of their capacity to reduce water consumption or increase water quality in customers' applications, as well as their contribution to preventing environmental pollution.

The following sub-chapters provide detailed descriptions of the specific thresholds and calculations involved in this evaluation for each of the four key topics: climate, circularity, safety, and nature.

2.2.3.1. Qualifying Criteria: Climate

The qualifying criteria for classifying a product as a Contributor or a Pioneer in the climate category are based on a product lifecycle perspective. There are four qualifying criteria that capture different parts of the value chain:

1) Cradle-to-gate (from raw materials until leaving HAT's production facility).
2) Application phase (use of HAT products at the customer's facility).
3) Use phase (use of the end-consumer product that the HAT product was used to produce).
4) Cradle-to-grave (from raw materials until the end of a product's life).

The assessment involves clear thresholds for the quantification of the carbon footprint reduction that must be proven for a product to be assigned into each class. Products must demonstrate (at least) a 15 percent reduction for the Contributor class, including biogenic uptake. Products must demonstrate (at least) a 30 percent reduction for the Pioneer class. This does not include biogenic uptake and focuses only on process emissions in line with the overarching Henkel Net Zero ambition.

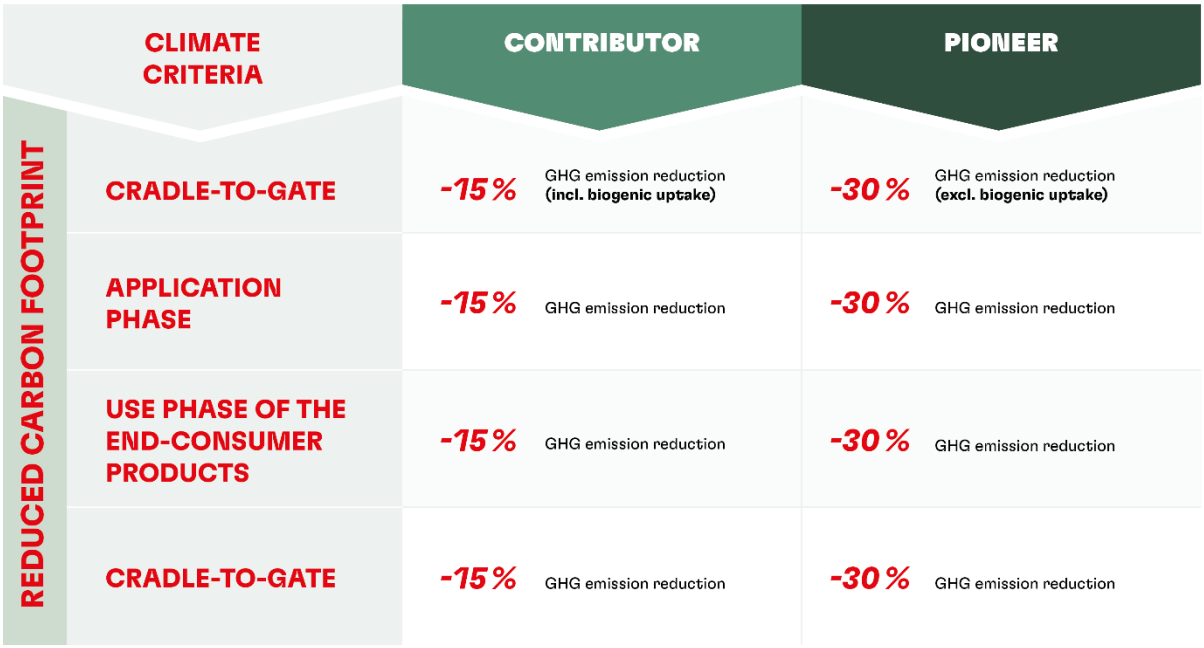

Illustration 5: Summary Climate Criteria

For the cradle-to-gate qualifying criteria **(1)**, products must show that they offer a reduced carbon footprint in raw materials, packaging, production and logistics compared to the direct predecessor product or compared to an internal average based on the specific market and application. Examples include a next-generation product that uses different raw materials with a lower carbon footprint or an established product that uses the same raw materials but is produced via a new production process that results in a lower carbon footprint than the average product with a similar market and application.

For the application phase qualifying criteria **(2)**, products must show that they offer a reduced carbon footprint during the application of the HAT product compared to the direct predecessor product, or compared to an HAT reference product that is widely used for a similar market and application, or compared to application scenarios used for corporate reporting. Examples might include a next-generation product that can be applied at a lower temperature, which saves energy and reduces the related emissions.

For the use phase of the end-consumer products qualifying criteria **(3)**, products must show that they offer a reduced carbon footprint in the context of the final use of the end-consumer product that the HAT solution is used to produce—compared to the direct predecessor product or compared to an HAT reference product that is widely used for a similar market and application. Examples might include products that enable lightweight vehicle designs, which reduces fuel consumption per kilometer and so reduces vehicle emissions.

The cradle-to-grave qualifying criteria **(4)** is relevant for products that either show a carbon footprint reduction in several value chain steps or create more complex emission reductions by enabling low carbon technologies. In this case the carbon footprint reduction must be proven compared to:

- Another HAT product or a competitor's product with the same properties.
- Another HAT product or a competitor's product with significantly different properties.

- A different technology that is not produced by HAT. Examples might include threadlocker adhesives that secure screws and so eliminate the need for metal washers that are more energy-intensive to produce.
- A scenario where no HAT product is used and no other action is taken to reduce the carbon footprint. For this last scenario, one example is our cool roof coating technologies that reflect sunlight on rooftops and reduce energy consumption for air conditioning. If our product is not used, the roof would not get coated and so no action would be taken to reduce the carbon footprint.

The cradle-to-grave qualifying criteria requires particularly close attention to accurately assess the climate benefit.

2.2.3.2. Qualifying Criteria: Circularity

The qualifying criteria for positive contributions to circularity address the full product lifecycle and are designed in line with the circularity principles of the Ellen MacArthur Foundation. There are four qualifying criteria:

1) Circular formulation
2) Circular packaging (product input perspective).
3) Enabling circularity in customer operations (product output perspective).
4) Circularity in the context of the end-product (product output perspective).

The assessment involves clear thresholds for the scale of the circularity contributions that must be proven for a product to be assigned into each class. In general, products in the Contributor class have a proven positive impact on circularity. Products in the Pioneer class can be described as systemic circular products—which means they are circular in themselves while also enabling circularity further along the product lifecycle.

CIRCULARITY CRITERIA	CONTRIBUTOR	PIONEER	
CIRCULAR FORMULATION	>20 % biobased / recycled / CCU content	>50 % biobased / recycled / CCU Carbon capture and utilization content	
CIRCULAR PACKAGING	>30 % all recycled plastic	-30 % only Post consumer recycled plastic	
	› Packaging reduction › Reusability › Recyclability		
ENABLING CIRCULARITY IN CUSTOMER OPERATIONS	› Maintain / Prolong the lifetime of the equipment @customer through repair, overhaul or restoration		Yes/No
CIRCULARITY IN CONTEXT OF THE END-PRODUCT	› Enabling material savings through intelligent material replacement or high product efficiency: › Enabling extension of product lifetime through abrasion prevention, repair or restoration: › Enabling product cycles via refurbishment, remanufacturing or reuse: › Enabling material cycles via recycling:		

Illustration 6: Summary Circularity Criteria

A product must comply with the Contributor thresholds in one of the criteria to get assigned into the Contributor class. A product must comply with the Pioneer thresholds for circular formulation (1) and circular packaging (2), while also complying with the Pioneer thresholds for one or both of enabling circularity in customer operations (3) and circularity in the context of the end-product (4) criteria, to get assigned into the Pioneer class.

For the circular formulation qualifying criteria **(1)**, products must show that they contain (at least) 20 percent content that is bio-based, recycled or derived from Carbon Capture and Utilization (CCU) processes for the Contributor class or (at least) 50 percent for the Pioneer class. The product must also have circular packaging and a proven capacity to enable circularity later in the lifecycle before it can be allocated to the Pioneer class.

For the circular packaging qualifying criteria **(2)**, products must show that they contain (at least) 30 percent content that is recycled from post-industrial or post-consumer sources for the Contributor class, or (at least) 30 percent content that is recycled from exclusively post-consumer sources for the Pioneer class. Alternatively, the product must show that it uses less packaging than either a direct predecessor product or an HAT reference product with a similar market and application. After meeting one of those two requirements, products must also show that they are reusable or designed to be recyclable. The product must also have a circular formulation and a proven capacity to enable circularity later in the life cycle before it can be allocated to the Pioneer class.

For the enabling circularity in customer operations qualifying criteria **(3)**, products must show that they maintain or prolong the lifetime of equipment at a customer's site through repair, overhaul or restoration. There are no thresholds or differences between the Contributor class and Pioneer class for this criterion: Assessors must arrive at a straightforward yes or no answer based on documented evidence. The differentiation between Contributor and Pioneer depends on whether the product also has a circular formulation and circular packaging.

For the circularity in the context of the end-product qualifying criteria **(4)**, products must show that they enable material savings through intelligent material replacement or high levels of product efficiency. Alternatively, they might demonstrate that they enable lifetime extension or prolong the lifetime of the final product by preventing abrasion or supporting repair, overhaul or restoration. Products that enable refurbishment, remanufacturing or reuse of either the full product or components within the product also meet this criteria. Enabling recycling of the final product can also qualify the product to be classified as a Contributor or a Pioneer in terms of the circularity qualifying criteria. Again, there are no thresholds or differences between the Contributor class and the Pioneer class for this criterion: Assessors must arrive at a straightforward yes or no answer based on documented evidence. The differentiation between Contributor and Pioneer depends on whether the product also has a circular formulation and circular packaging.

2.2.3.3. Qualifying Criteria: Safety

The qualifying criteria for positive contributions to safety address the full product lifecycle. There are two qualifying criteria:

1) Active and positive contribution to responsible chemistry practices.
2) Enhancing health and safety along the value chain.

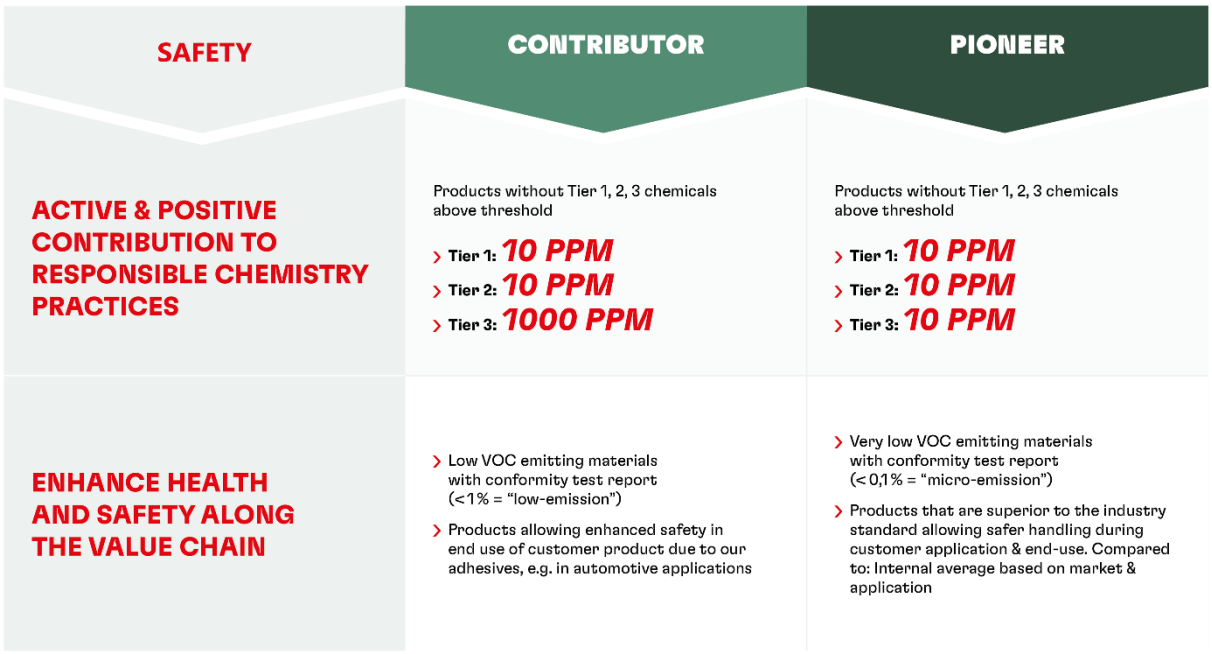

Illustration 7: Summary Safety Criteria

Products must meet one of these two qualifying criteria in order to achieve classification as a Contributor or a Pioneer. The assessment involves clear thresholds for the scale of the safety contributions that must be proven for a product to be assigned into each class.

For the active and positive contribution to responsible chemistry practices qualifying criteria **(1)**, products must show that they go far beyond minimum regulatory requirements and offer a truly superior solution in terms of sustainability.

To achieve classification as a Contributor, products must show that they contain less than 10 parts per million (ppm) of chemical substances from Tier 1 and Tier 2, as well as less than 1,000 ppm of chemical substances from Tier 3. In case the prerequisite threshold of Tier 1 is lower than 10 ppm, the stricter threshold is applied.

To achieve classification as a Pioneer, products must show that they contain less than 10 ppm of chemical substances in Tier 1, Tier 2 and Tier 3. In case the prerequisite threshold of Tier 1 is lower than 10 ppm, the stricter threshold is applied.

For the enhancing health and safety along the value chain qualifying criteria **(2)**, products must show that they improve indoor air quality. Specifically, products must complete a certified test to measure VOC emissions. They must achieve a result of less than 1 percent to achieve classification as a Contributor and must achieve a result of less than 0.1 percent to achieve classification as a Pioneer. Alternatively, products must show that they enable enhanced safety during use of the end-consumer product that the HAT product was used to

produce. Specifically, products must show that they offer superior safety when compared to industry standard solutions and a reference product that is widely used for a similar market and application.

2.2.3.4. Qualifying Criteria: Nature

The qualifying criteria for positive contributions to nature address the most material points in the product lifecycle. There are three qualifying criteria:

1) Reduced water consumption.
2) Improving water quality.
3) Preventing environmental pollution.

The assessment involves clear thresholds for the scale of the contributions to nature that must be proven for a product to be assigned into each class.

NATURE CRITERIA	CONTRIBUTOR	PIONEER
REDUCED WATER CONSUMPTION IN CUSTOMER APPLICATION	› Products that enable reduced intake water consumption during application at customer › Products that enable reuse of water e.g. compatible with filtration system to allow for water reuse	› Same as contributor + market reference
INCREASED WATER AND WASTEWATER QUALITY IN CUSTOMER APPLICATION	› Products verified to increase water quality, e.g. as part of a filtration technology, or accessibility › Improved water quality entering the Wastewater Treatment (WWT) e.g. no phosphate, reduced COD	› Same as contributor + market reference
PREVENTING ENVIRONMENTAL POLLUTION	› Product that are verified to prevent environmental pollution e.g. due to prevention of leakages.	› Same as contributor + market reference

Illustration 8: Summary Nature Criteria

For the reduced water consumption qualifying criteria **(1)**, products must show that they enable reduced intake water consumption during application at the customer's site and enable reuse of water (e.g. because they are compatible with filtration systems that enable water reuse). To achieve a Pioneer classification, products must show that they reduce water consumption during application at the customer's site when compared to industry standard solutions and compared to a reference product that is widely used for a similar market and application.

For the improving water quality qualifying criteria **(2)**, products must show that they increase water quality (e.g. as part of a filtration technology) or accessibility and that they enable improved quality of water that enters wastewater treatment processes (e.g. no phosphates or reduced Chemical Oxygen Demand). To achieve a Pioneer classification, products must show that they increase water quality above the market standard when compared to an HAT reference product that is widely used for a similar market and application. They must also

show that they improve the quality of water that enters wastewater treatment processes to an extent that is higher than the market standard.

For the preventing environmental pollution qualifying criteria **(3)**, products must show that they prevent environmental pollution (e.g. by stopping leakages). To achieve Pioneer status, products must show that they prevent environmental pollution processes to an extent that is higher than the market standard and when compared to an HAT reference product that is widely used for a similar market and application.

2.3 Proof documents to substantiate the classification

Relevant proof documents are required for all products that are assessed as making a significant contribution to sustainability—and that are assigned to the Contributor or the Pioneer class. This ensures a fact-based approach and supports the definition of meaningful sustainability value propositions for each product.

Proof documents can include internal or external documents, such as:

- For contributions to climate: Product Carbon Footprints (PCFs) and Life Cycle Assessments (LCAs).
- For contributions to circularity: Supplier documentation, biomass balance certifications (e.g. ISCC, REDcert) and biodegradability or recyclability certificates from third parties.
- For contributions to safety: Documentation of the absence of Tier 1, Tier 2 and Tier 3 chemicals above the defined thresholds or VOC emissions tests (e.g. GEV-Emicode EC-1 and EC-1 Plus or CARB).
- For contributions to nature: Customer confirmations, laboratory test results, technical data sheets (TDS) and safety data sheets (SDS).

Some of the above-described criteria are defined in a relative way (e.g. reductions) and relate to a representative product. The definition of this representative product can be found for each category and underlying criteria in chapter 2.2.3. Products that are assigned to the Contributor or the Pioneer class require proof documents described above for the product that is assessed and also for the reference product. This makes it possible to assess the relative contribution.

2.4 Scope of the assessment

The scope of this assessment covers all finished goods that are chemical products, that are owned by HAT and that account for at least 80 percent of HAT's net sales over the previous two years. The unassessed portfolio share is caused by recent M&A projects, as well as product categories that fall out of scope, such as equipment (e.g. hotmelt guns) and services (e.g. laboratory testing) where the methodology is not applicable. For some products, HAT purchases traded goods where the composition is in confidential ownership of the supplier and the assessment cannot be conducted.

By working to automate the assessment process for existing products and integrating the assessment into its innovation process, HAT is continuously increasing the data quality and overall coverage of this assessment process. A review of all previously assessed products is repeated every two years.

3. Portfolio Sustainability Assessment Governance

This chapter contains specific details about how Henkel Adhesive Technologies (HAT) ensures a robust process for its portfolio sustainability assessment approach. It begins by explaining the clearly defined roles and responsibilities for employees who conduct assessments, submit their assessment of the appropriate sustainability class and approve the allocation of a product into one of the four sustainability classes. There is also a full description of the process for existing HAT products and for new products that emerge from innovation projects.

HAT's approach to data governance is described in this chapter to provide insights into how the company ensures high-quality data. The external audit process is also explained, followed by information about the ongoing process of reviewing the methodology involved in the HAT portfolio sustainability assessment approach.

3.1 General roles and responsibilities

Several functions work together to support, organize and conduct the HAT portfolio sustainability assessment process. There are five key roles involved in the process:

1) Method, Tool and Process Owner
2) Assessment Process Manager
3) Assessor
4) Submitter
5) Approver

The following graphic depicts the interaction between the various roles:

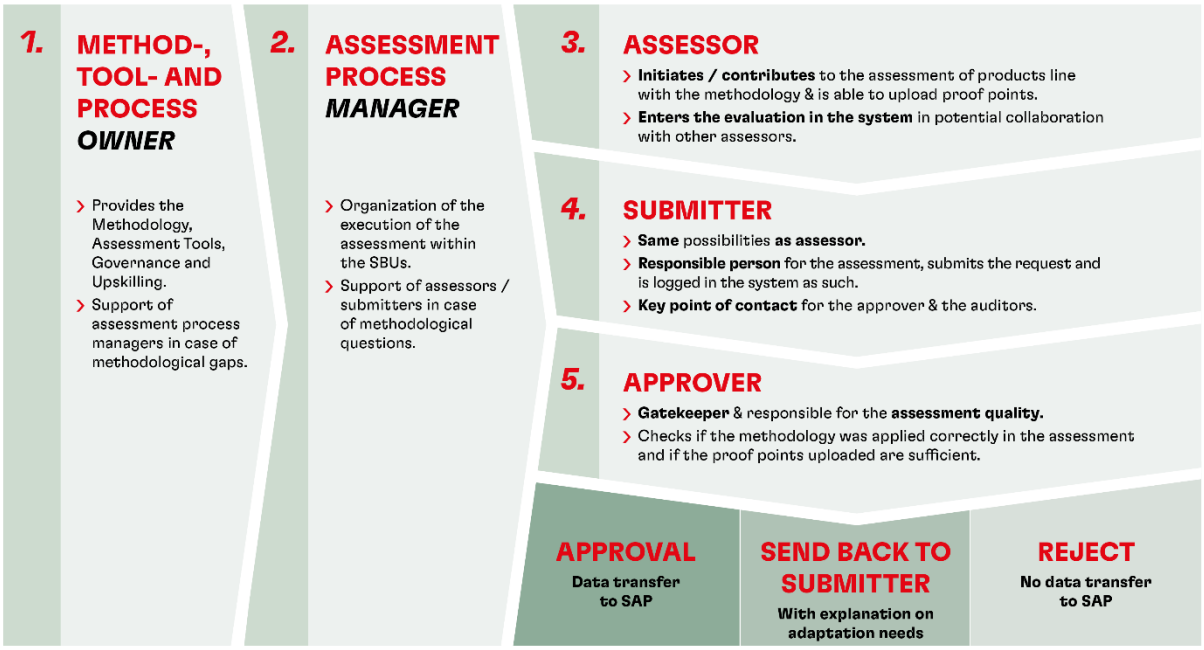

Illustration 9: Roles & Responsibilities Flow-Chart

The Method, Tool and Process Owner **(1)** is a member of the central and global Sustainability Management team (AQR) in HAT and supports the overall process. They provide the

methodology and tools that enable their colleagues to conduct an assessment for one of the company's products. They also resolve any methodological questions and oversee the related governance measures.

The Assessment Process Manager **(2)** is a member of one of HAT's Strategic Business Units (SBUs). These employees organize the execution of the assessment within their SBU in line with the uniform methodology and governance requirements. They are the first point of contact for colleagues who execute the portfolio sustainability assessment: the Assessors, Submitters and Approvers.

These three roles are all directly integrated into the IT tool for the assessment process. They have the relevant access rights, so that the actions and steps of the process are tied to their specific responsibilities.

The Assessor(s) **(3)** and the Submitter **(4)** can initiate and contribute to the assessment of a product in line with the uniform methodology. A product assessment can be conducted by one Assessor or one Submitter alone or in collaboration with several Assessors. The assessment process includes entering relevant information into the IT tool, as well as preparing and uploading proof documents.

The difference between the Assessor and the Submitter is that the Submitter is tracked as the responsible person for the assessment and submits the final request to the Approver. The Submitter is logged into the IT tool as the key contact for the product assessment in case of questions or requests for changes that are raised by the Approver.

The Approver **(5)** acts as gatekeeper for each product assessment and is responsible for the assessment quality. The Approver checks if the methodology was applied correctly in the assessment and if the proof documents uploaded are sufficient. Depending on the result of the check, the Approver can either approve the assessment, send the assessment back to the Submitter with an explanation about necessary changes, or they can reject the assessment.

This approach ensures that the four-eye principle is kept in all cases. To further strengthen the integrity and quality of the process, the Submitter and the Approver belong to different departments. Usually, the Submitter is an employee from Product Development or Technology Management because these colleagues have deep knowledge of the specific product. The Approver is usually a member of the Sustainability team within the relevant SBU because these colleagues offer a combination of sustainability and business expertise. Assessors can be employees from a variety of different areas of the organization because the assessment involves consideration of the full value chain, so it is often valuable to involve colleagues with a variety of perspectives.

3.2 Process description

The Henkel Adhesive Technologies (HAT) portfolio sustainability assessment is carried out in two different modes: Regular re-assessments of existing products **(1)** and assessments of new product innovations **(2)**. Both modes follow the same process flow, while they also involve the same roles and responsibilities. However, the execution of the assessment slightly

differs for each mode. Together, these two modes ensure that the results of the assessment cover the entire HAT portfolio in a consistent way and with high standards of data quality.

Regular re-assessments of existing products **(1)** may be triggered by changes in the availability or quality of sustainability data, by changes to the availability of proof documents, by updated master data quality or by methodological updates (see Chapter 3.5).

Assessments of new product innovations **(2)** are an integral part of the product development process at HAT. They make sure sustainability performance is integrated into decision-making during the process of developing new products. They also help to ensure that a significant proportion of the HAT portfolio has been assessed via this methodology because all new products must be evaluated before they enter the market.

The two different modes of sustainability assessment are described in more detail in the following table:

	Regular re-assessments of existing products (1)	**Assessments of new product innovations (2)**
Objective	Provide transparency about the current portfolio's contributions to sustainability. Integrate sustainability into strategic management and portfolio management practices.	Make sustainability an integral part of the innovation process and all decision-making steps involved in this process.
Trigger	Changes in availability or quality of sustainability data. Availability of proof documents for a specific product or product range. Updated master data quality. Methodological updates.	Development of a new product or change of an existing product.
Timeframe	At least once every two years as preparation of the audit process, ideally based on the triggers described above.	Continuous assessment at different stages of the product development process, with a final allocation of the sustainability class before market launch.
Responsibility	Commercial and technical experts from HAT.	The HAT Innovation project team.
Tool	Henkel Sustainability portfolio assessment tool.	Innovation steering tool.

3.3 Data governance

Several processes are in place to ensure the completeness, correctness and consistency of the data involved in the HAT portfolio sustainability assessment process.

The product data assessment is always conducted by at least two people (under the four-eye principle) with appropriate commercial and technical expertise. At least two roles are assigned to each product assessment: Submitter and Approver. The assessment is conducted by the Submitter and potentially supported by several Assessors, who are experts with knowledge of the product, markets and applications served. Once the Submitter has completed the sustainability assessment for the product, the Approver must review and approve the assessment. Approvers are sustainability leads within their SBU. Employees are chosen for the role of Submitter and Approver based on the specific structure and needs of each business unit.

All assessment data is stored in Henkel's master data library.

As part of the HAT portfolio sustainability assessment process, the central Sustainability Management team reviews the criteria and trains all relevant HAT employees on the latest updates to the process steps and applicable tools. The central Sustainability Management team also conducts sample checks to ensure data quality. The team follows up with the respective business units if corrective actions are necessary.

3.4 External audit process

The results of the external audit are published together with the methodology document after the HAT portfolio sustainability assessment process is complete. These documents are made available for the public on the company website: Henkel.com.

3.5 Methodology review process

The methodology behind the HAT portfolio sustainability assessment process will be continuously internally reviewed and improved to reflect changes in regulatory frameworks and external stakeholder needs, as well as increasing ambitions for sustainability at HAT. The results of the portfolio sustainability assessment are integrated into business steering formats and into the development of sustainability value propositions for our products. For this reason, the underlying methodology must always be aligned with and updated to reflect key strategic developments at HAT. The methodology is also reviewed to ensure alignment with the latest guidance from the World Business Council for Sustainable Development (WBCSD).

The information in this document is based on the current knowledge and the latest version of the HAT portfolio sustainability assessment process. We reserve the right to update the content and the processes described in this manual, and to implement those updates before publishing a revised version.

The most recent changes to the methodology are driven by anticipated future regulations such as the EU Green Claims Directive and the CSRD reporting requirements for substances of very high concern (SVHCs), as well as an increase of the ambition level of HAT's sustainability commitments, like Net Zero Targets. As part of the continuous improvement

process, user feedback is incorporated into the methodology as well. The main changes derived include increased thresholds for climate, extended circularity criteria and a refinement of the responsible chemistry approach. In addition, the guidance for market references was streamlined to increase objectiveness and comparability.

4. Glossary

Abbreviation	Description
A	
ADP	Adhesives Development Process
ARC	Adhesive Responsible Chemistry
C	
CARB	California Air Resource Board
CCU	Carbon Capture and Utilization
CO2	Carbon Dioxide
CS	Chemical Substances
CSRD	(European Union's) Corporate Sustainability Reporting Directive
G	
GEV	Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V. (German Association)
GHS	Global Harmonized System
H	
HAT	Henkel Adhesive Technologies
I	
IB	Industrial Business (product group number in ERP system)
IDH	International Data Harmonization (material number in ERP system)
ISCC	International Sustainability and Carbon Certification
L	
LCA	Lifecycle Assessment
N	
NES	Net External Sales
P	
PCF	Product Carbon Footprint
PCR	Post-Consumer-Recycled
PFR	Portfolio Review
PIR	Post-Industrial-Recycled
PLM	Product Line Manager
PTM	Product Technology Manager
R	
REACH	(European Union's) Registration, Evaluation, Authorization and Restriction of Chemicals
REDcert	
RS	Real Substance

S

SBU	Strategic Business Units (at Henkel Adhesive Technologies)
SDS	Sustainability Data Sheet
SVHC	Substance of Very High Concern as defined in the REACH framework and used in CSRD.

T

TDS	Technical Data Sheets

V

VOC	Volatile Organic Compounds

W

WBSCD	World Business Council for Sustainable Development

5. Annex

Annex 1: Definitions of the Tier 2a, Tier 2b and Tier 3 Chemicals

Tier 2a contains all the SVHC according to the following definition:

- SVHC according to Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) authorization list (Annex XIV).
- SVHC according to EU SVHC candidate list.

Tier 2b contains all the Chemicals of (High) Concern according to the following definition:

- Chemicals of (High) Concern according to REACH Substances restricted list (Annex XVII).
- Substances classified as known to be a human carcinogen according to NTP Carcinogens list.
- Substances classified CMR with H350 (May cause cancer), based on the so-called Henkel-Unified Globally Harmonized System (UN GHS) classification in the Carcinogens Cat. 1a + 1b. The UN-GHS is a classification curated by Henkel experts from Henkel Corporate Scientific Solution department.
- Substances classified CMR with H340 (May cause genetic defect), based on the UN GHS classification in Mutagens Cat. 1a + 1b.
- Substances classified CMR with H360 (May damage fertility or the unborn child), based on the UN GHS classification in the Reprotoxins Cat. 1a + 1b.
- Substances classified as Lactation toxins with H362 (May cause harm to breast-fed children), based on the EU GHS and UN GHS classification in internal Henkel list (SAP).
- Substances classified as confirmed Endocrine Disruptors (ED) according to:
    - EU SVHC
    - EU REACH Annex XIV
    - EU CoRAP
    - EU ED Assessment, Danish Centre on Endocrine Disruptors 2018 report
    - IPCP Report on Endocrine Disruptors 2016 list.
- Substances classified as confirmed Persistent, bioaccumulative and toxic (PBT), and Very persistent and very bioaccumulative (vPvB) according to the:
    - EU SVHC,
    - REACH Annex XIV
    - TRI PBT
    - Washington PBT
    - EU CoRAP
    - EU PBT Assessment
    - Maine Chemicals of High Concern
    - TSCA Section 6(h) PBT
    - EU CLP Annex VI list.
- Substances classified as confirmed Persistent Organic Pollutant (POP) according to:
    - Stockholm Convention
    - Aarhus Protocol
    - EU PIC Regulation
    - EU POPs Regulation
- Substances responsible for the global warming according to the Kyoto Protocol list.
- Substances responsible for the ozone depletion according to the Montreal Protocol list.

Tier 3 contains all the CSs that present a lower impact or are considered to be a suspected hazards according to the following definitions:

- Substances classified as suspected PBT, and suspected vPvB according to:
    - EU CoRAP
    - EU PBT Assessment
    - Minnesota Chemicals of High Concern
    - EU SVHC intentions
    - KEMI PRIO
    - Sinlist.
- Substances classified as suspected POP according to:
    - Intentions for Stockholm Convention
    - Aarhus Protocol
    - EU POPs Regulation list.
- Substances classified as suspected ED according to:
    - EU CoRAP
    - EU ED Assessment
    - Danish Centre on Endocrine Disruptors 2018 report
    - IPCP Report on Endocrine Disruptors 2016
    - Minnesota Chemicals of High Concern
    - EU SVHC intentions
    - KEMI Prio
    - Sinlist.
- Substances classified as Reasonably anticipated to be a human carcinogen according to NTP Carcinogens list.
- Substances classified as Respiratory Sensitizers with H334 (May cause allergy or asthma symptoms or breathing difficulties if inhaled), based on the UN GHS classification.
- Substances classified as Suspected Mutagens with H341 (Toxic to aquatic life with long lasting effect), based on the UN GHS classification in Mutagens Cat. 2.
- Substances classified as Suspected Carcinogens with H351 (Suspected of causing cancer), based on the UN GHS classification in the Carcinogens Cat. 2.
- Substances classified as Suspected Carcinogens with H361 (Suspected of damaging fertility or the unborn child), based on the UN GHS classification in the Reprotoxins Cat. 2.
- Substances classified as STOT Single Exposure with H370 (Causes damage to organs), based on the UN GHS classification in the STOT Single Exposure Cat. 1.
- Substances classified as STOT Single Exposure with H371 (May cause damage to organs), based on the UN GHS classification in the STOT Single Exposure Cat. 2.
- Substances classified as STOT Repeated Exposure with H372 (Causes damage to organs through prolonged or repeated exposure), based on the UN GHS classification in the STOT Repeated Exposure Cat. 1.
- Substances classified as STOT Repeated Exposure with H373 (may cause damage to organs through prolonged or repeated exposure), based on the UN GHS classification in the STOT Repeated Exposure Cat. 2 internal Henkel list (SAP).
- Substances classified with H410 (Very toxic to aquatic life with long lasting effects), based on the UN GHS classification in the Chronic Aquatic toxicity Cat. 1.
- Substances classified with H411 (Toxic to aquatic life with long lasting effects), based on the UN GHS classification in the Chronic Aquatic toxicity Cat. 2.

- Substances responsible for the ozone depletion classified with H420 (Harms public health and the environment by destroying ozone in the upper atmosphere), based on the EU GHS and UN GHS classification in the Ozone depleting Cat. 1.