Driving our chemical strategy to 2030 and beyond

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Introduction

Fashion with Integrity - why does a chemical management strategy matter to us, our suppliers, customers, and the environment?

It's important to us that we work with our suppliers in a responsible way to manage their impact on the environment, and that we're transparent on what we're doing with our customers and wider stakeholders.

We want our customers to truly trust our products and know they are safe and compliant with all of the standards and regulations that apply because we have robust systems in place to stop non-compliant products getting to our distribution centres and onwards to our customers, before they can do anyone any possible harm.

Chemical management

Why a chemical management policy for a fashion brand?

Chemical management may seem, at first glance, to be an unusual area for a fashion brand to be concerned about, but with every item we buy being composed of chemicals, this in fact is critical to the way we need to think and work. Chemical management encompasses designing, manufacturing and using chemical products that are: (1) efficient, (2) effective, (3) safer and (4) more environmentally friendly[1]. Sustainable chemical management is a holistic approach considering the perspective of input, process and output at a factory level as the ZDHC (Zero Discharge of Hazardous Chemicals) describes it, starting with better chemical inputs. Using this approach can mean reductions in (1) greenhouse gas emissions, (2) water pollution, (3) waste and (4) exposure to potentially harmful chemicals during product manufacturing.

For clothing, leather, and footwear, chemicals and compliance were, for many decades, a topic dealt with by 'experts', and were rarely even known about by customers. Some brands had their own chemical policies, and checked their products for compliance, often based on taking random samples from their stores or distribution centres, and then testing them. However, most companies trusted their suppliers to use safe and compliant chemicals at their factories, and assumed that the final products would therefore be hazard-free and safe.

Over recent decades there has been increasing legislation put in place for all industries, not just clothing, leather, and footwear.
An example, in Europe, but still affecting us post-Brexit, are the REACH regulations (short for Registration, Evaluation, Authorisation, and Restriction of Chemicals, managed by the European Chemicals Agency). These define strict limits, and approval or banning of numerous chemicals which are defined as hazardous or unsafe for various reasons.

Other regions in the world operate their own local, but similar legislation, as do some regions within countries. For example, in the USA, is California, which has its own rigorously enforced chemical management compliance requirement, known as Prop 65, which requires businesses to provide warnings to Californians about exposure to chemicals at levels that may cause cancer, birth defects, or other reproductive harm.

In most cases across these legislative or compliance requirements, product which finds its way to the consumer, and is found to contain chemicals which, on testing, breach local or national legislation limits, may be subject to immediate product withdrawal from the market. This is often accompanied by substantial fines for the company selling the product, which can damage the company's reputation, and standing in the market.

"Sustainable chemical management is a holistic approach considering the perspective of input, process and output at a factory level."

[1] OECD (2021), Guidance on Key Considerations for the Identification and Selection of Safer Chemical Alternative, OECD Series on Risk Management, No. 60, Environment, Health and Safety, Environment Directorate, OECD.

Our commitments

How and why did the ZDHC Foundation begin?

A report by Greenpeace, in 2011, called 'Detox My Fashion', challenged the earlier perception of chemicals being an assumed 'safely managed' aspect of clothing, leather, and footwear manufacture by checking only the final product. Greenpeace's investigations found, through laboratory testing, that some well-known global brands were unknowingly selling products with traces of potentially hazardous chemicals still left on them from the manufacturing process. This jolted the industry into action and led to the formation of a cross-brand collaborative group, with the long-term target to reach zero hazardous chemicals being used in the textile supply chain. It named itself 'ZDHC', standing for Zero Discharge of Hazardous Chemicals, and it now has over 30 well-known global brands and retailers as its Contributors, including ASOS.

ROADMAP TO ZERO

What are we committed to doing?

Our goal, like that of the ZDHC and its other contributors, is to specify, responsibly manage, and achieve only the use of safer chemicals in production of our clothing, leather, and footwear supply chains, right from the wet processor level. This will lead to zero discharges of hazardous chemicals, in terms of wastewater and exposure to other emissions in the production regions. Further assuring us, and our customers, that our products meet the very highest global standards of chemical compliance.

"Our goal is to specify, responsibly manage, and achieve only the use of safer chemicals in production of our clothing, leather, and footwear supply chains, right from the wet processor level."

Making products safe

How does ASOS make sure its products are safe and hazard-free?

We are fully committed to make sure that every one of our styles meets the very highest standards of safety and compliance. We have in place a rigorous process at all our locations of manufacture, to test, and release styles only if they fully pass the strict chemical tests that we apply.

This is called 'Due Diligence' and is a robustly managed process that monitors our suppliers' actual compliance to our test standards, and chemical requirements.

Any products that don't meet the required test standards are stopped at the factory from being shipped to our distribution centres, and onward to our customers. Through this, we ensure that only chemically safe products reach our customers.

During 2021, Bureau Veritas, working with our global supply base, carried out nearly 60,000 chemical tests, covering product development, production, and due diligence. These wide-ranging tests covered chemicals and metals listed on our Restricted Substances List (RSL), including country-specific requirements such as California's Prop 65 requirements.

As more and more of our suppliers fully implement the ASOS designed and managed chemical management processes, in combination with the ZDHC procedures, we can be even more confident that they are making safe products that will pass the strict tests we impose, prior to shipping.

"Any products that don't meet the required test standards are stopped at the factory from being shipped to our distribution centres, and onward to our customers."

Our priorities and goals

We have one simple aim, to design and deliver safe and compliant product to our customers, whilst protecting the safety of workers in our supply chain, and protecting the environment. To make this happen, we are focusing on:

1	2	3	4
FULLY CHEMICAL COMPLIANT ROADMAP TO ZERO The ZDHC MRSL & use of 'Positive List' Chemicals	**SUPPLIERS: 100% TRANSPARENCY**	**CHALLENGING GOALS NOW AND TO 2030** **2022 to 2030**	**KEEPING OUR PRODUCTS SAFE AND COMPLIANT - NOW AND IN THE FUTURE**
Maximise the volume of our product that is fully chemically compliant at source i.e., factory, and our drive towards zero discharge of hazardous chemicals in our factories - and throughout the supply chain. Specify that the ZDHC's MRSL (Manufacturing Restricted Substances List) is used to eliminate the use of chemicals (11 priority chemical groups) banned from intentional use in wet processing facilities for textile material, leather & trim parts in clothing and footwear. This is done in combination with the required use of chemical and auxiliary suppliers' 'positive lists' of safer chemical formulations identified through the ZDHC Gateway. This includes dyestuffs, printing inks, and fabric softeners, for example.	Suppliers must develop and progress their ways of working towards being 100% transparent in their selection and use of safe and compliant chemicals (avoiding banned chemical substances listed on the ZDHC MRSL), their processes, and the longer-term goal of zero hazardous discharges in relation to their ASOS production and their production in general. Suppliers must show written (including test report) proof they are using safe chemicals and processes on our fabrics and other raw materials.	Set challenging but achievable goals and milestones to 2030, towards achieving zero hazardous chemicals in our supply chain, which is the ambition of the ZDHC, and all its global partners. **For more on this, and our targets, please see page 9 in this digital brochure.**	Make everyone involved in the process responsible for setting, and delivering the required standards, from the buying and technical operation at ASOS, through to the manufacturing process, and the finished products into our distribution centres. Standards of chemical compliance, whether those of ASOS, or those legally enforced, must not be breached.

Implementation

Implementing our Chemical Policy – ZDHC Chemical Management System (CMS) and Technical Industry Guide (CMS TIG)

ASOS has adopted clear ZDHC guidelines as the basis for managing chemical compliance and implementation across its supply base.

Like other ZDHC Contributors, we decided that the widely adopted ZDHC procedures would be the most effective way of implementing our chemical management requirements, as they have been designed to apply globally, and are subject to regular updates.

Here are the links to those documents:

ZDHC MRSL:
https://mrsl-30.roadmaptozero.com/
ZDHC CMS Framework:
https://downloads.roadmaptozero.com/process/ZDHC-CMS-Framework
ZDHC CMS TIG:
https://downloads.roadmaptozero.com/process/ZDHC-CMS-TIG
ZDHC Wastewater Guidelines:
https://www.roadmaptozero.com/output#guidelines

Our Roadmap to delivery of our Chemical Management Strategy

It is essential that we have a clear plan for the next five and more years, and our roadmap summarises it in a way our teams and suppliers can understand.

The ZDHC process, especially with its positive approach of MRSL chemicals, needed to be 'tried and tested' by our vertical suppliers, before we progressed the ambitious roll out to our wider supplier base.

Whilst we require all wet processing suppliers to use chemicals that meet the ZDHC MRSL, with our tight-knit group of just nine vertical suppliers, we were able to quickly verify the implementation of the ZDHC MRSL in chemicals in their dyehouses, industrial laundries, printers, and tanneries, through the ZDHC tools, like the Gateway. This gave us early confidence that this approach could be implemented widely across all suppliers (vertical, and those using third party wet processors).

We achieved good progress at our vertical suppliers towards substitution with the ZDHC MRSL conformant chemicals, and this provided proof that the ZDHC process can be effectively delivered, paving the way to its roll out to our broader supply base, including third-party wet processors.

The ASOS Chemical Strategy Roadmap is a multi-layered approach, involving several key processes, and it is project managed by the ASOS chemical compliance and technical team.

Roadmap to delivery

Our Roadmap to delivery of our Chemical Management Strategy

1. Mapping our wet processors (dyehouses, printers, laundries, and leather tanneries) supplying our garment and footwear suppliers: We identify their exact locations, and the fabric or other material suppliers they work for. By mid 2022, we had 222 wet processors mapped, and 53 suppliers mapped to wet processor level. This programme is ongoing, to include more wet processors of all types.

2. Engage suppliers onto the ZDHC's Supplier to Zero programme. This gives suppliers an 'entry gate' to the ZDHC Chemical Management System (CMS) & Technical Industry Guide (CMS TIG).

3. A detailed initial self-evaluation assessment is carried out, asking the wet processor every detail of their operation, including how they manage their chemicals and dyes, and how they avoid the risk of unsafe chemicals being present in the dyehouse, or unintentionally being applied to our products.

4. Carry out chemical assessments to measure each facility's capability to manage their chemicals competently. This involves a detailed self-assessment, known as the ZDHC Performance InCheck Report, to assess that all chemicals in use conform to the required MRSL standards, and to ensure that clear records are being kept. In addition, proof must be shown that, in the event of chemicals arriving on site that do not meet the required standards (maybe due to an error in ordering, or despatching), that the rejected batch is quarantined in a safe and locked-off area, to avoid its unintentional shipment. It must then be taken off site to safe and environmentally responsible disposal.

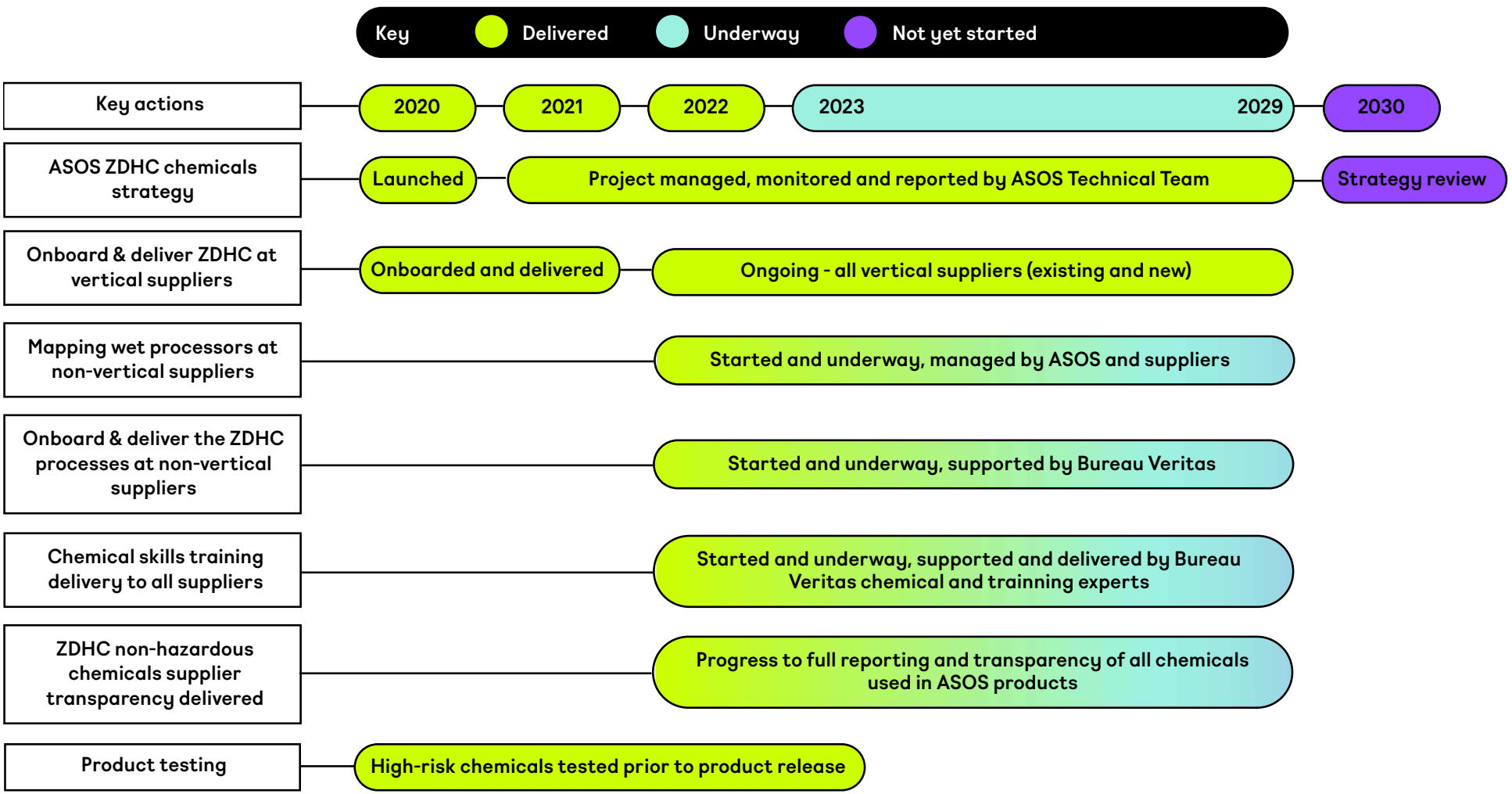
5. Due Diligence testing: operate a robust testing procedure, starting at the factory, where finished garments and footwear are tested for their chemical compliance. Failures are stopped at source, preventing them being shipped to our distribution centres, and onward to our customers.

6. Set clear ZDHC timelines to implement the full process of chemical management.

"The ASOS Chemical Strategy Roadmap combines our current approach to chemical compliance and our program of continuous improvement and delivery to 2030 and beyond."

Roadmap to delivery

The chart below summarises our roadmap, showing a clear progression of ASOS Chemical Management Strategy Roadmap, and when we expect to reach full transparency of ASOS's wet processors.



Chemical testing

Testing for high-risk chemicals: RSL and the ZDHC MRSL - what do they mean and why are they critical to the ASOS Chemical Management Programme?

RSL ASOS's Restricted Substances List	ZDHC MRSL Manufacturing Restricted Substances List
This is ASOS's list of banned or potentially hazardous chemicals and materials, what maximum levels they can be present in the finished product, and what test methods should be used to detect them. **OUR RSL**	This refers to the ZDHC MRSL, a list of substances banned as intentional ingredients of chemicals used in production, e.g. dyes, auxiliaries. The ZDHC MRSL supports the restriction of intentional use of hazardous substances in dyehouses, laundries, printers, tanneries, or any other wet processes.
The chemicals on this list reflect widely used ones common in the textile, leather, and footwear processing industries, and overlap with those of most other brands and recognised industry organisations and retailers.	The chemicals and dyes used for clothing and textiles, if conforming to the ZDHC MRSL, and certified based on criteria set by experts working with ZDHC, are listed on the ZDHC Gateway, so that suppliers can easily identify the preferred chemicals.

There is always a chance, unintentionally, that a non-approved substance is used in a dye, chemical, or auxiliary and thereby finds its way into a fabric or product. An example is in APEO, which were used in various auxiliaries for numerous applications and processes in dyeing, printing and laundries, and often in such low concentrations, that legally there was no need for labelling them as ingredients to an auxiliary chemical. The process of the ZDHC MRSL conformance and eventual listing of a chemical in the ZDHC Gateway let the factory know that an auxiliary chemical is free of APEO and therefore safe to use.

On the next page is an extract of our RSL table of banned and restricted chemicals, and this focuses on some of the Azo Amines which, due to their hazardous nature, are banned from use. The maximum permitted limit, 20 mg/kg, is also known as '20 parts per million', is a trace amount, meaning that it may, at that level, just be unintended contamination on the finished product, and not used deliberately.

Chemical testing

Any test report where the stated maximum limit is exceeded, is a breach of our standards, and the whole consignment of garments or footwear, must be quarantined, reported to our technical and commercial teams, and stopped from being shipped to our distribution centres to ensure it never reaches our customers.

CLASS OF CHEMICAL	CAS NUMBER (internationally recognised number)	CHEMICAL NAME	MAXIMUM LIMIT ON FINISHED PRODUCT	TEST METHOD
Azo Amines	119-93-7	3,3′ - Dimethylbenzidine	20 mg / kg	Textile: ISO 14362-1 Leather: ISO 17234-1
Azo Amines	838-88-0	4,4′ - Methylenedi-o-toluidine	20 mg / kg	Textile: ISO 14362-1 Leather: ISO 17234-1
Azo Amines	120-71-8	6 - Methoxy-m-toluidine (p-cresidine)	20 mg / kg	Textile: ISO 14362-1 Leather: ISO 17234-1
Azo Amines	101-14-4	4,4′ - Methylene-bis-(2-chloroaniline)	20 mg / kg	Textile: ISO 14362-1 Leather: ISO 17234-1
Azo Amines	101-80-4	4,4′ - Oxydianiline	20 mg / kg	Textile: ISO 14362-1 Leather: ISO 17234-1

*This table is a snapshot of the ASOS RSL, not the full list.

Our suppliers

Suppliers - our partners manufacturing and delivering chemically safe product

ASOS is proud of its partnership with suppliers and builds long-term collaborative relationships. Although our suppliers vary greatly in their complexity, location, and size, like many other brands and retailers, we have two main types: vertical suppliers, and non-vertical suppliers.

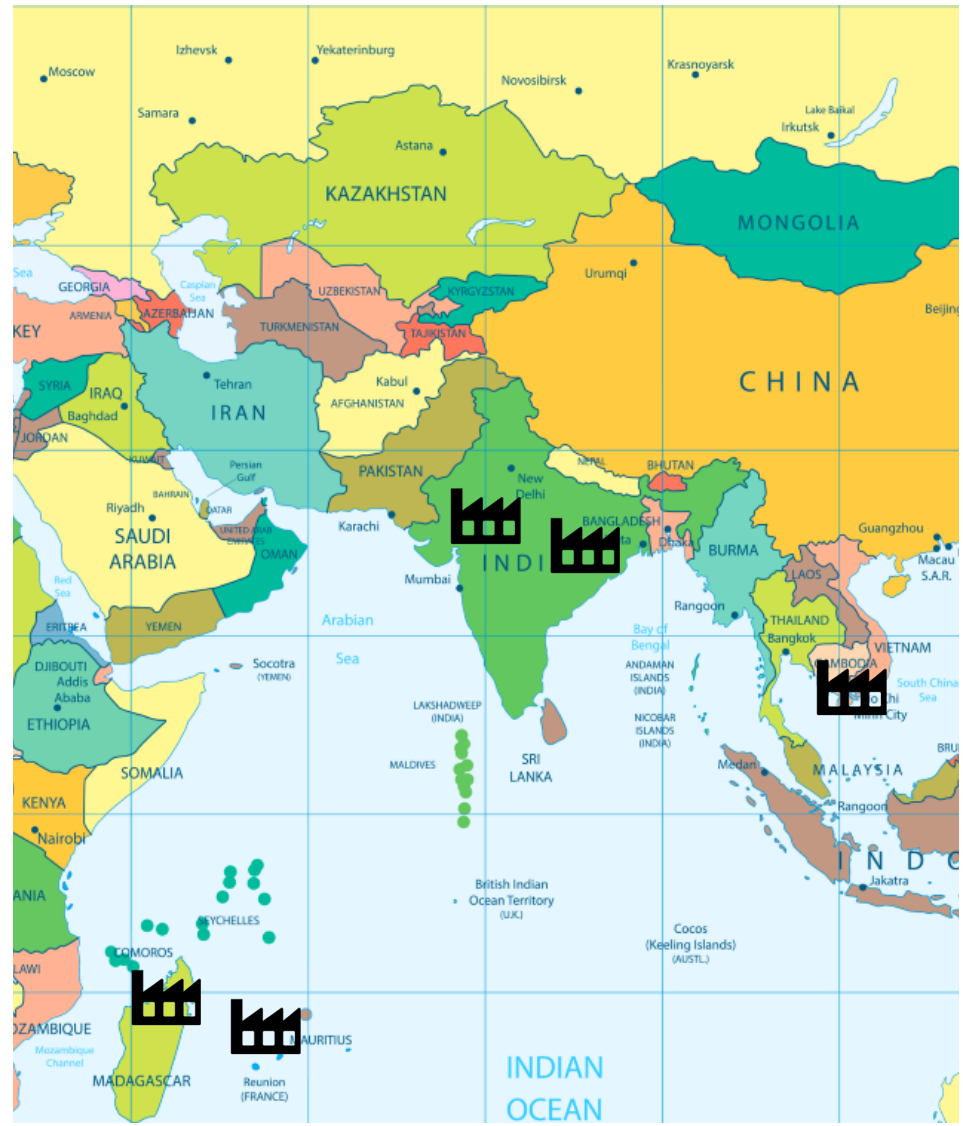
Vertical suppliers (a few key suppliers):These suppliers own the whole production process within their organisation, from the intake of yarn to the output of the finished product, including the wet processing part of the production process.

Non-vertical suppliers (the majority of our supply base): These source their fabrics and trims from specialist third-party material manufacturers, which work closely with dyeing, printing, and tannery partners if they do not have these wet processing facilities in-house. Typically, these suppliers buy in the dyed or printed fabric and trims, and then cut and sew our garments.

Why start with vertical suppliers?

We realised our first opportunity was through our vertical suppliers. With our vertical suppliers owning and having direct control of the wet processing within their organisations we could rapidly implement the first stages of the ASOS Chemical Management Strategy, making real progress in the first levels of the ZDHC InCheck, Supplier to Zero, and the ZDHC ClearStream (wastewater testing).

This map shows the locations of our vertical suppliers (Madagascar, Mauritius, India, Bangladesh, and Vietnam). Our vertical suppliers represent 9% of ASOS's buying value.



Wet processing

Our vertical suppliers have a broad mix of wet processing facilities, and so helped demonstrate to us how the ZDHC implementation could work when it is scaled up to far more suppliers and wet processors globally.




Wet processor	Location	Dyehouse	Laundry	Printer	Tannery*
A	Mauritius	▲	▲		
B	Bangladesh	▲			
C	India				▲
D	Vietnam	▲			
E	Mauritius	▲	▲		
F	India			▲	
G	Mauritius	▲	▲		
H	Mauritius	▲	▲		
I	Madagascar		▲	▲	
TOTAL		**6**	**5**	**2**	**1**

* A tannery is a factory treating the skins and hides of animals to produce leather

Suppliers to Zero

Suppliers to Zero

ASOS understands that chemical management is a journey, which requires suppliers to adapt to updated regulations and improved production processes. Some suppliers are quite advanced, but may lack specific knowledge on the ZDHC tools. ASOS therefore uses the ZDHC Supplier to Zero programme for creating an entry gate at the various levels. Supplier to Zero covers chemical input management, output management, chemical handling and other process related aspects, and therefore shows if a supplier is meeting all the industry requirements at a certain level. There are three levels: Foundational, Progressive and Aspirational.

While the ZDHC Supplier to Zero programme provides a clear categorisation of suppliers meeting certain expectations, ASOS also measures progress of suppliers in chemical input and output. ASOS has worked with Bureau Veritas and ZDHC to set targets for facilities in line with other ZDHC brands.

Supplier to Zero
By ZDHC

"ASOS understands chemical management is a journey, which requires suppliers to adapt to updated regulations and improved production processes."

Foundational Level	Progressive Level	Aspirational Level
Capacity building for suppliers by going through a self-evaluation on the implementation of the ZDHC Chemical Management System, Technical Industry Guide. Suppliers learn how to identify the ZDHC MRSL conformant chemicals, improve housekeeping and chemical handling as well as discharge treatment.	Advanced self-evaluation on the ZDHC Chemical Management System, Technical Industry Guide implementation, which is verified in a desktop review. Suppliers need to have used the Incheck for verifying chemical inventory conformance. A ZDHC ClearStream wastewater report needs to meet industry expectations.	This will be the 'expert level evaluation' of suppliers on the ZDHC Chemical Management System, Technical Industry Guide implementation, which will be verified in an on-site verification.
Launched by the ZDHC in 2020 Adopted by ASOS for suppliers.	Launched 2021 Adopted by ASOS for Suppliers	To be launched by the ZDHC

Ready to supply

ASOS 'Ready to Supply' means a supplier is ready to provide us with clothing, leather goods and footwear that meet our standards of chemical input, processes and output. It defines required activities, with KPIs (key performance indicators) showing what standards need to be met for a wet processor to be classed as ASOS 'Ready to Supply'. The chart on the next page describes, under the headings of Input, Process, and Output, what wet processors need to do to demonstrate they meet our standards.

We expect, as suppliers continually improve on adapting better chemical management practices, they will be able to meet higher expectations in the ZDHC implementation. ASOS will monitor supplier progress and adapt the goals set to ensure production of our goods has minimum harmful and maximum positive impact on the industry's ecological footprint.

"ASOS will monitor supplier progress and adapt the goals set to ensure production of our goods has minimum harmful and maximum positive impact on the industry's ecological footprint."

Ready to supply

ASOS READY TO SUPPLY

INPUT
Foundational & Progressive Level

Actions required

- Register on the ZDHC Gateway
- Build & maintain Progressive performance chemical inventory list (CIL)
- Identify hazards in chemical inventory & make improvement plans accordingly
- Demonstrate improvements based on action plan

KPIs

- Provide at least eight performance InCheck reports within 12 months
- 80% inventory chemicals Gateway level 1 or above

InCheck

PROCESS
Foundational Level

Actions required

- Register on the ZDHC Gateway
- Complete Supplier to Zero evaluation foundational level
- Report the recommendation overview including improvement timelines within one month
- Conclude with Foundational Level Certificate (including improvements) within six months

KPIs

- Receive Supplier to Zero foundational level certification

Supplier to Zero

OUPUT
Foundational Level

Actions required

- Register on the ZDHC Gateway
- Conduct ClearStream wastewater testing for verification

Biannual reporting cycles
(30 April / 31 October)

KPIs

By 31 October of each year have :

- Less than three findings in MRSL parameters
- Direct dischargers must meet the Foundational limits of the ZDHC Wastewater Guidelines

ClearStream

Driving compliance

Supplier chemical knowledge - the ASOS Certified Chemical Technologist (ACCT) role

A key role of our suppliers is to upskill key technical personnel to become ASOS Certified Chemical Technologists (ACCT), with overall responsibility for ensuring that the product delivered is chemically compliant. ACCT personnel have the expertise required to oversee compliance and communicate requirements through the supply chain, including to wet processor level. We have partnered with Bureau Veritas to develop and deliver the training. Suppliers are monitored on their understanding of this training and must get at least an 80% pass to receive their certificate.

Driving compliance within the supply chain through ACCT training.

Training is critical to making our ASOS chemical management programme work. The chemical knowledge that everyone involved in the clothing, leather, and footwear industries needs to know today is far higher, and more in-depth, than it was ten or more years ago.

The prime role of the ACCT is to manage the input chemicals which have been used on fabrics, components, and trims coming into the factory from third-party raw material suppliers. All aspects of the role also apply for garment and product manufacture, as chemicals e.g. machine oil etc. are used in all factories and need managing responsibly and safely.

ACCT trainees are tested on completion of the online modules and can view the programme again if some areas need reinforcing.

Topic	Summary of ACCT expertise
Chemical Policy	How to write a policy statement. Why it is important. How to implement it.
Restricted Substances	What are high risk chemicals, which product areas are at risk, and what are the pitfalls.
RSL & MRSL	Understanding the difference between the two, and how to interpret the information.
Global Legislation	Understanding the main global requirements, and how to ensure products keep up with legislation.
Chemical Management Strategy	What is a chemical management strategy and how to implement one.
Chemical Assessments	How to risk assess chemicals for hazard and risk assessing your supply base.
Health & Safety	What PPE (personal protective equipment) should be worn and how to handle chemicals safely in factories: wet processing and product manufacturing.
Chemical Inventory	What is a chemical inventory list. What it should include. What is a MSDS (Material Safety Data Sheet) and how to interpret its contents.
Storage & Handling	How chemicals should be labelled and handled.
Output Management	What wastewater testing is. How to manage waste disposal.
Process Control	What is required for document control and incident management e.g. spillage of chemicals.
Continuous Improvement	Reviewing the chemical management system and training programme to keep both updated with new chemicals or updated legislation and safety requirements.

Due diligence

How do we assess how well our suppliers' products perform to our Chemical Policy Restricted Substances List?

Our Due Diligence processes

We have designed our Due Diligence process around the widely used 'RAG' (Red, Amber, Green) traffic light system of grading. On the next page is a chart showing how, dependent on test results over a measured period, a supplier can move into the 'Green' zone, and only need to test a smaller percentage of their products prior to shipment, because they have earnt our confidence that that are effectively managing and delivering their part of the ASOS chemical management process.

Our technologists work with our suppliers to identify the highest risk chemicals potentially present in each product and organise the products to be tested against our RSL (Restricted Substances List), monitoring if there are any breaches of the standards.

A supplier whose controls are poor and has records of chemical related customer complaints, is likely to score low, falling into the 'red' zone on the 'RAG' rating system. That supplier will then need to test all their high-risk product before it leaves their factory and the pass or fail results will be visible to our teams.

"Our technologists work with our suppliers to identify the highest risk chemicals potentially present in each product and organise the products to be tested against our RSL."

Factory processes

ASOS DUE DILIGENCE AND FACTORY PROCESS 'RAG' CRITERIA

KPIs Key Performance Indicators				**Comments**
1. Chemical compliance				
Cadmium CRITERIA: 1st Time Pass Rate	High pass rate	Medium pass rate	Low pass rate	Pass = independent test house reports do not breach maximum mg/kg (or other stated standard) on ASOS RSL (Restricted Substances List)
Lead CRITERIA: 1st Time Pass Rate				
Phthalates CRITERIA: 1st Time Pass Rate				
2. Customer feedback				
Customer complaints from the last 12 months for RSL chemical-related issue(s).	Nil.	Max. one complaint.	Two or more complaints.	Complaints related to RSL issues.
3. Factory assessment and process				
ASOS chemical supplier evaluation (ACCT)	Passed	Chemical evaluation underway.	Not started.	Underway = supplier has commenced chemical supplier evaluation process
Factory chemical assessment	Passed or N/A	Chemical assessment underway.	Not started.	Underway = supplier has commenced factory chemical assessment process
Chemical failure root cause analysis	Passed or N/A	Root cause analysis underway.	Not started.	Underway = supplier has commenced root cause analysis process
Wet processors mapped and engaged in ZDHC program	All main wet processors mapped and ZDHC engaged.	All main wet processors mapped and ZDHC reporting underway.	Main wet processors not signed up to ZDHC.	ZDHC engaged means completing Incheck, Supplier to Zero, Clearstream.

The role of suppliers

What are our suppliers' roles in implementing the ASOS Chemical Management Policy?

Role?	Why is this essential?
1. Qualify at least one ASOS Certified Chemical Technologist (ACCT) in their business.	Chemical knowledge is now essential at all product manufacturers (clothing, leather, and footwear) to ensure in-house understanding of managing chemical compliance of incoming raw materials, and the compliance of products to the ASOS RSL when they leave the factory for our distribution centres.
2. Work with the ASOS Chemical Management team to provide full details of all their fabric, and other raw material suppliers, and keep it updated as they take on board new sources.	Clarity on all raw materials that have been subjected to wet processing is critical to manage the detail of wet processes, and the ZDHC MRSL compliance. Unknown raw materials and sources of manufacture pose a risk of chemical non-compliance to the ZDHC MRSL.
3. Provide additional detail (name, address, key contact, type of processor, and if signed up to the ZDHC etc.) of all the wet processors these suppliers are using	This level of detail builds on the above, allowing complete transparency on the exact compliance against the ZDHC MRSL of all wet processors used, and successful implementation of chemicals on 'positive lists' from recognised suppliers.
4. Work closely with all raw material sources to ensure every fabric, and other raw material, has been tested for its chemical compliance to ASOS standards, and passed, before being despatched to their factory for cutting and sewing.	The ACCT is responsible, on behalf of the supplier they represent, to coordinate necessary document gathering and test reporting to demonstrate that all raw materials used in garment or product manufacture, have been signed off as chemically compliant to ASOS's RSL.
5. Report non-compliances to RSL to ASOS. Take action to resolve as appropriate.	The ACCT is responsible to give immediate notification to their ASOS regional or London-office technical contact, any product non-compliance to the ASOS RSL, and what action i.e. quarantine of affected 'fail' product batch(es), has been taken to prevent the risk of shipment to ASOS distribution centres.

Supporting suppliers

How does ASOS support its suppliers on chemical management?

The ASOS technical teams are, of course, always available to support suppliers where a challenging issue arises on a chemical compliance matter that may be affecting sourcing, product development, or production, that is a given part of our collaborative way of working in true partnership.

Many of our suppliers manufacture at several factory locations, either within one country or sometimes across several, to gain the maximum benefit of labour skills availability. At any time, they may need an up to date, but easily accessible and precise reference to the risks of different chemicals being present in a particular raw material, or mix of raw materials, within one garment or product. Typically, they need to know, for a given raw material e.g. textile, leather part, trim, or component, what chemicals may be present on a material, if they are potentially hazardous (or banned from deliberate use), what are the safe limits, and finally, what is the required test method to assess them.

"The ASOS technical teams are always available to support suppliers where a challenging issue arises on a chemical compliance matter."

ASOS Chemical App – mobile global access to chemicals, their safe limits, and test methods

In response to this need, ASOS has developed its ASOS Chemical App, which is available to all its suppliers, as well as its own teams in the UK, and overseas. Created collaboratively by chemical and IT experts as an interactive version of its chemical risk matrix and RSL, suppliers find it one of the easiest ways their technologists can access. Before was a time-consuming process of spreadsheet reading, usually requiring a technologist to cross-reference several documents at one time. Now is a few simple taps on the clear mobile phone icons (see steps below) now delivers the same information - in seconds.

Our chemical policy app

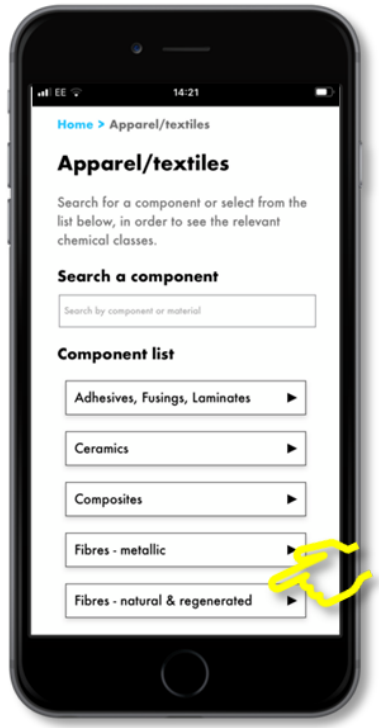
THE ASOS CHEMICAL POLICY APP

1

Select ASOS Chemical App

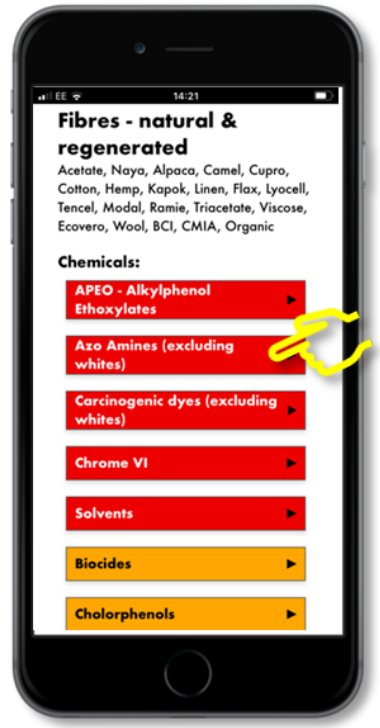
2

Select product type or item from icon



3

Select fibre type or material for checking



4

Select chemical type for checking. Red = high risk of presence on fabric

5

Read the risk, note the max. allowed safe limit, and required test method

Partnerships

Partnerships to deliver our Chemical Compliance Strategy

A policy that is as ambitious and challenging to deliver needs the use of external expert partners and organisations. Like many other brands, we cannot do this alone.

Working with external partners involves collaborating with other brands and retailers who, in the commercial world, would be seen as competitors. This applies in the case of our ZDHC connections, where it is the deliberate aim to combine the technical knowledge and interests of multiple brands towards the goals of eliminating hazardous chemicals from the supply chain.

Our two key partners in helping deliver, and maximise the benefits of our Chemical Compliance Strategy are:

- **ZDHC** – stands for 'Zero Discharge of Hazardous Chemicals' and the respective foundation, based in Amsterdam, but with a global reach. The ZDHC Foundation is the leading organisation for sustainable chemical management, providing the industry with an environment for continuous improvement.

- **Bureau Veritas** – A major global test house organisation, with expertise in chemical management, testing, and reporting, and with whom we already have a close partnership.

The next two sections describe in more detail how we work with each of them.

"The ZDHC Foundation is the leading organisation for sustainable chemical management, providing the industry with an environment for continuous improvement."

Zero Discharge of Hazardous Chemicals

ROADMAP TO ZERO

What is ZDHC?

In 2011, Greenpeace issued a wake-up call to the fashion industry, it's stakeholders and consumers with the launch of it's Detox my Fashion campaign.

The campaign drew attention to the effects of hazardous chemicals in the manufacturing of clothing and footwear in production countries. Six brands individually signed public commitments with Greenpeace to commit to phasing out hazardous chemicals from the fashion value chains. This was the beginning of ZDHC's Roadmap to Zero Programme.

In 2015 the ZDHC Foundation was established in Amsterdam with an updated vision of brands working collaboratively to implement sustainable chemistry, drive innovation and commit to best practices in the fashion industry to protect consumers, workers and the environment. As a multi-stakeholder initiative, the ZDHC's Roadmap to Zero Programme brings together businesses, civil society, governments, research institutions and non-government organisations to co-operate in the joint engagement and global implementation efforts of the programme. By bringing more stakeholders on board, ZDHC stands to improve the quality of its data, coverage initiatives and brand programmes to minimise duplication of efforts in the industry, and enable the rapid scaling of the Roadmap to Zero Programme.

Who is participating in the Roadmap to Zero programme?

Companies and organisations that actively participate and continually further the development of the Roadmap to Zero Programme are known as ZDHC Contributors - brands and retailers, chemical and dyestuff manufacturers, fabric and fibre companies, standards organisations, and test houses. There were 175 at the time of publication, of which over 37 are brands located globally, including ASOS. This impressive mix of organisations, the largest of its type in the world, representing many important parts of the clothing and footwear value chain, is key to dealing with the challenges of responsibly managing and specifying only safe and compliant chemicals in manufacturing, from wet processing, right through to the final product that the consumer purchases.

Asos and ZDHC

ASOS - our role and involvement

ASOS joined the ZDHC Foundation's Roadmap to Zero Programme in 2018. ASOS decided that its own well-structured chemical management programme needed to become more effective, and be driven at pace, by joining and participating in the established, and still growing Roadmap to Zero Programme. Joining an expert and influential group of like-minded organisations greatly helps us manage and deliver our strategy, whilst gaining the benefits of knowledge only others, with their specialist expertise, have available.

ASOS brings our product and technical expertise to the ZDHC Brands Advisory Group, which meets regularly. We learn from others and they learn from us. It is a truly non-competitive forum, so we might, for example, be at a meeting with another UK retailer who, in the commercial world, would be considered a competitor. There is a strict agreement that only technical information and know-how is exchanged, for the benefit of each organisation, towards its goal of responsibly and effectively managing its chemical strategy.

How has ASOS upgraded our chemical policy to gain maximum benefits from the ZDHC ways of working?

The ASOS chemical management policy has had its own very detailed list of key chemicals for some time, specifying which ones are either banned, or restricted, on their levels of presence in our products. This is called a Restricted Substances List (also commonly known in short as an 'RSL'). RSL lists, widely adopted by many major global brands and retailers, define, by every chemical type used in the processing of clothing, leather, and footwear, what hazardous risks there are if a particular chemical is present in a product at too high a level, or at all.

These limits are, at their maximum on the RSL, just trace levels, causing no harm to people, nor the environment in subsequent consumer washing. But if the presence of these chemicals exceeds the upper stated RSL limits, these may then become real risks of harm to humans, or in the case of the garment, affecting plant or aquatic life when that garment is washed, and wastewater as it enters the drains, and into streams or rivers.

We could have stopped there with our RSL, and simply continued testing finished products as they left the factory or arrived in our distribution centres. Products that passed the tests would then have been approved for shipping onto customers and fails would have been stopped from reaching our distribution centres, and customers. This approach, whilst effective as a way of blocking unsafe products, does not deal at all with the source, in other words, deliberately selecting, and then using, only defined hazard-free chemicals in the factory itself.

ASOS decided instead, as a responsible brand wanting to be counted among many other well-known global organisations, to take its chemical management responsibilities right back to the factory where the dyestuff, or print, is applied onto the material that becomes the clothing, leather goods, or footwear we sell.

To do that, we had to change our way of working, and become part of the ZDHC Foundation. We have gone much further than just joining, attending, and participating in meetings. We have now integrated the key ZDHC policies into our own ASOS chemical management strategy and policy, so we, and our suppliers, get the full benefit of membership. This means we now structure our strategy to mirror the ZDHC's, and track our suppliers' chemical management progress in the ZDHC way.

The ZDHC approach

ZDHC's managed approach

With its managed approach, right from the chemicals used, and how they are to be correctly and safely applied onto our fabrics in our factories, we have a growing and far higher assurance that the final products are chemically safe. It is a progressive plan, and later (on page 28) we describe our roadmap to applying the ZDHC processes across our whole supplier base.

The ZDHC Foundation, together with ZDHC Contributors from around the world (including ASOS since 2018), has developed its own approach to managing chemicals in clothing, leather, and footwear, called the ZDHC MRSL, meaning Manufacturing Restricted Substances List.

This means a highly detailed list of chemical substances, which are banned from intentional use in chemicals commonly used in the processes essential to manufacturing textiles, clothing, and footwear. Under no conditions may they be deliberately used by a factory signed up to the ZDHC MRSL process. To help everyone, chemical manufacturers can certify, through the ZDHC Gateway, which individual chemicals in their ranges are certified as the ZDHC MRSL conformant.

When managed effectively, a chemical substance banned for deliberate use by the ZDHC MRSL, will not be allowed into the factory, so there's no risk of it ever getting onto the textile being processed, or the final garment, leather product, or footwear.

The principle is again simple and sensible. If you only deliberately permit highly controlled 'approved safe and compliant chemicals' into the factory, then any waste materials or liquids from the factory, or indeed the final product itself, will have no hazardous chemicals present, or be detectable, when tested.

Roadmap to zero

This is all summarised by the ZDHC Foundation's 'Roadmap to Zero' high level strategy 'Input, Process, and Output', meaning 'define and control the input chemicals, manage them exactly and to what standards in the factory, and the factory's outputs (waste materials, liquids, and of course the fabric or leather itself) will be safe and compliant'.

Whilst this may seem straightforward and sensible in principle, it's an ambitious and challenging strategy to effectively deliver, because of the sheer global scale of a supply base like that of ASOS, and the fact that we do not actually own any of the dyehouses or other wet processing facilities where the need for chemical management begins and is focused on delivery.

ASOS has gone a step further, and we have worked directly with Bureau Veritas (BV), our test house partner, to create specialist training for our suppliers, and on which we measure people's understanding and achievement levels.

"ASOS has gone a step further. We have worked directly with BV, our test house partner, to create specialist training for our suppliers."

The ZDHC approach

How the ZHDC MRSL is developed

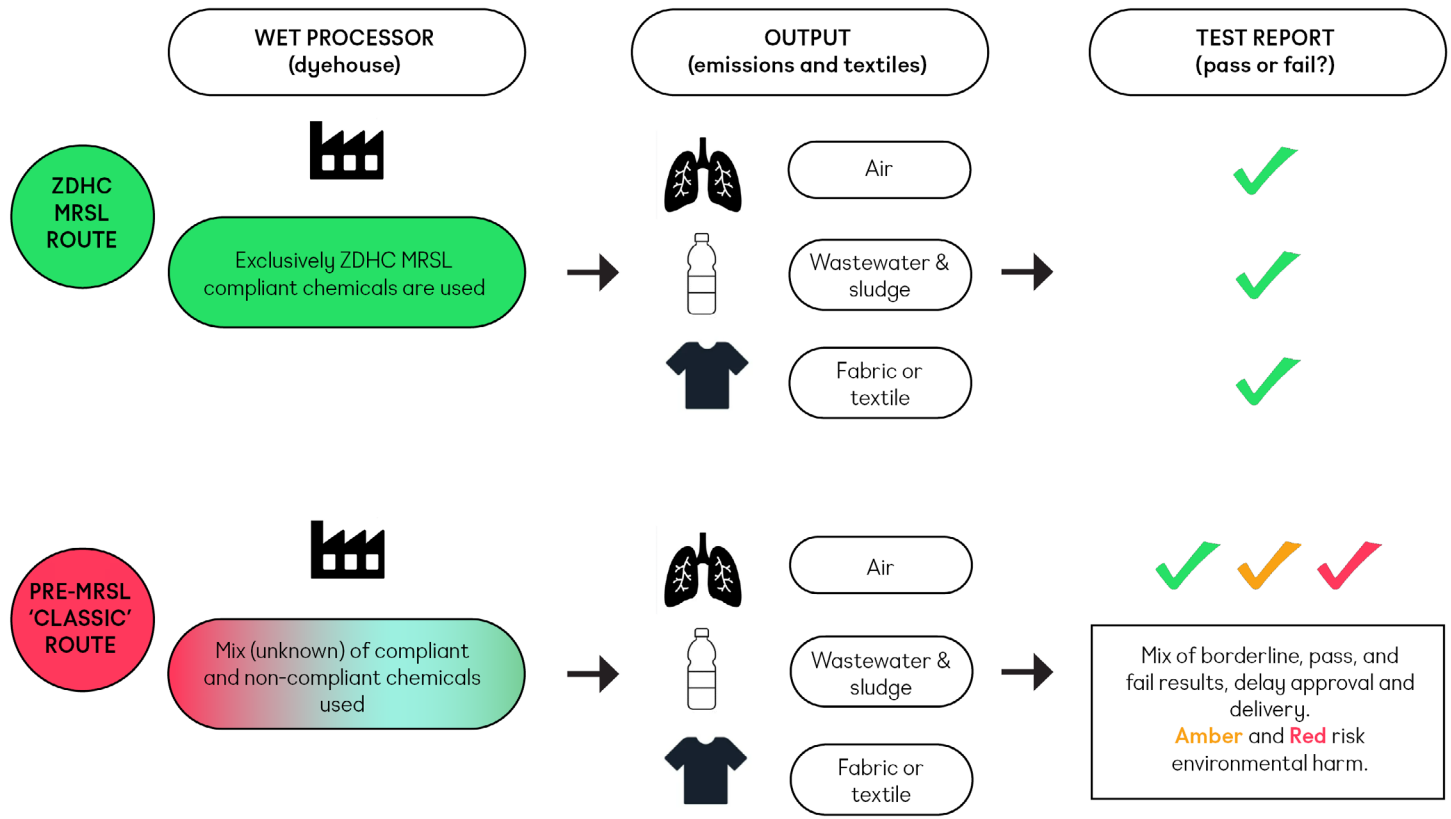
ZDHC experts group define approved, restricted, and banned chemicals
= the ZDHC MRSL

The ZDHC MRSL list published

Chemical suppliers publish the ZDHC MRSL-compliant chemicals lists for use by dyehouses

Below is a flowchart that shows how the ZDHC MRSL works and why ASOS has made it mandatory for its suppliers' wet processing factories. This shows how using the ZDHC MRSL conformant chemicals in the input results in RSL compliant products in the output, reducing the risk of hazardous chemicals in the end product delivered to our customers.

THE ZDHC MRSL



Our partnership with Bureau Veritas

Introduction

Bureau Veritas is a French headquartered test house organisation founded in 1828, and now with 78,000 employees globally

Its scope (testing, inspection, and certification) extends across many consumer-based and industrially based spheres, and many of its wide-ranging expert services, both professionally and personally, touch peoples' lives.

The areas of where ASOS engages with Bureau Veritas is principally its testing and compliance expertise, both of which extend globally across many laboratories, and include local experts, wherever we source our products.

Product and Due Diligence testing

The clothing, leather, and footwear products that we sell need to be tested at every stage of their manufacture, from the raw materials, right through to the finished product. The testing extends not only to the physical attributes of the product, for example how well it performs when subjected to washing and wearing, but also the presence of any chemicals that may be left on the textile after it has been dyed, or otherwise treated.

In our partnership arrangement, Bureau Veritas laboratories have full access to our requirements, and links to our suppliers. Test reports relating to ASOS products are electronically sent to our technical teams for review and sign-off. This ensures clarity and transparency on how products are performing before being sent overseas to our distribution centres for despatch, and gives us 'early warning' in case there are compliance, quality, or safety issues that need be addressed.

BUREAU VERITAS

Shaping a World of Trust

Chemical management programme

BV and the ASOS chemical management programme

For our ASOS chemical management programme, it's Bureau Veritas's BVE^3 (Environmental Emission Evaluator) service we have engaged with.

Bureau Veritas is a ZDHC Approved Solution Provider. This means it is approved as the ZDHC MRSL certifier for chemicals, wastewater laboratory and trainer/consultant for the factories.

Bureau Veritas recognised that many brands and retailers needed to progress their supply base, and in particular its wet processors (dye houses, laundries, and printers for example) to the highest levels of ZDHC compliance and have proof of how well they are performing. The assessment of the ZDHC MRSL conformity, and reporting processes for ZDHC related activities, can both be challenging to operate for some manufacturers, so the BVE^3 process has been developed to make it easier, whilst at the same time providing independent and trusted proof it is being done. It made sense to ASOS, with our existing close collaboration with Bureau Veritas on testing our products, to choose BVE^3, and so link the existing test houses into the ASOS chemical management programme.

How is BVE^3 helping our suppliers deliver effective results on the ASOS chemical management programme?

The principal focus of the support is at the input stage of wet processing, where BVE^3 verifies on-site chemical management (the CIL – Chemical Inventory List), against the ZDHC MRSL (delivering a ZDHC Performance InCheck™ report), and SDS (Safety Data Sheet) Evaluation. BVE^3 includes a technical report, which give the wet processor extra information to support improvement, and their service includes uploading this data to the ZDHC system (the ZDHC Gateway), so ensuring on-time and accurate information is supplied and visible.

In addition to the Bureau Veritas BVE^3 reports, ASOS also accepts other providers' Performance InCheck™ reports, such as Bhive® from GoBlue International Ltd, and CleanChain, from ADEC Innovation, and Toxclear from Intertek.

"Bureau Veritas recognised that many brands and retailers needed to progress their supply base, and in particular its wet processors to the highest levels of ZDHC compliance."

Conclusion

At ASOS, we are proud to have developed, and be underway delivering, a robustly managed chemical strategy, which protects factory workers, our customers, and the environment. Below is a summary of its key points:

ASOS CHEMICAL STRATEGY Our goal is to specify, responsibly manage, and deliver safe, compliant, and hazard-free chemicals in our clothing, leather, and footwear supply chain, from wet processor level through to the consumer.		
ZDHC	**Bureau Veritas**	**Global Partners**
ASOS is an active member of this growing and respected organisation and has adopted its ways of working to help deliver our chemical strategy. Core is the requirement to use the ZDHC MRSL compliant chemicals. This supports delivering ASOS RSL compliant product to our customers, and plays its part in protecting the environment.	ASOS leverages its long-standing partnership with Bureau Veritas, to help our suppliers, and their wet processors, deliver the detail and reporting of chemical compliance in manufacturing our clothing, leather, and footwear products.	We work closely and collaboratively with our global partner suppliers to deliver our chemical strategy. Through focused training, support from technical experts within ASOS, and with our partners at the ZDHC and Bureau Veritas, we scale up their capabilities and know-how to effectively deliver this critical business strategy.

Driving our chemical strategy to 2030 and beyond

Author:
ASOS Compliance and Fabric Team