

**Quality is in our nature**Diversey Cannabis / Hemp Solutions

# Tailored-fit Cleaning and Sanitation solutions to optimize your business

### **Ensuring Operational efficiency**

Manufacturers in the food and beverage industry are facing an increasing number of challenges.

Changing consumer habits, legislation demanding greater process integrity and traceability, and improvement of on-shelf available means that market pressures are making efficient engineering and logistics ever more important.

As manufactures in the Life Sciences industries, Diversey's total solutions approach promotes quality, brand protection and sustainability.

### Leaders in an emerging Industry

Diversey and our global distribution partners are uniquely positioned to provide unequaled value to the Life Science industry. Whether you are engaging in further processing, extraction, and / or cultivation, Diversey and its partners are there to ensure your operation's processes are fully optimized in accordance with Good Processing Practices (GPPs) and Good Manufacturing practices (GMPs).

Harnessing over 95 years of expertise and knowledge, Diversey develops innovative cleaning technologies, providing a tailored, customer-centric approach that empowers sustainable solutions. Protecting and improving the environment, we operate with our customers' needs at the heart of everything we do. Our mission is to protect and care for people every day by pioneering future focused cleaning and hygiene technologies.

### Diversey and our partners provide unique value to:

#### 1. Processing

Diversey's novel chemical cleaning/disinfection chemistry accelerated hydrogen peroxide (AHP,) is just one example of how Diversey applies its unique chemistry to prevent virus, yeast and mold cross contamination.

#### 2. Extraction

Supercritical  ${\rm CO_2}$  extraction systems with automated Clean In Place (CIP) systems and manual cleaning for non  ${\rm CO_2}$  extraction.

#### 3. Cultivation

On plant, seed, clipping and soil hydrogen peroxide based curative and infection prevention treatments (USA only).

#### 4. Equipment and Engineering Solutions

Complete equipment and engineering portfolio designed to maximize efficiency and prevent yield loss.

#### 5. Facilites

Complete equipment and chemical hygiene program for floor treatment, handcare, dishwashing and laundry, water treatment (boiler, potable and irrigation).

#### 6. Services

Knowledge Based Services (KBS) and Sector Expertise, combined with a collaborative account management plan.

### **Industry Value Chain**

Whether your value chain includes cultivation, further processing and/or extraction, Diversey will work with you to ensure your product meets the quality that your end client demands. We will partner with you to drive costs out of your operations to ensure your company is sustainable throughout time.

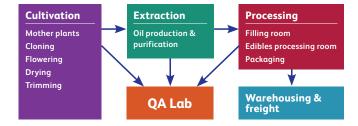
- 1. Automated tray washers
- 2. Extractor CIP skids
- 3. COP tanks for part washing
- 4. Portable and centralized cleaning systems

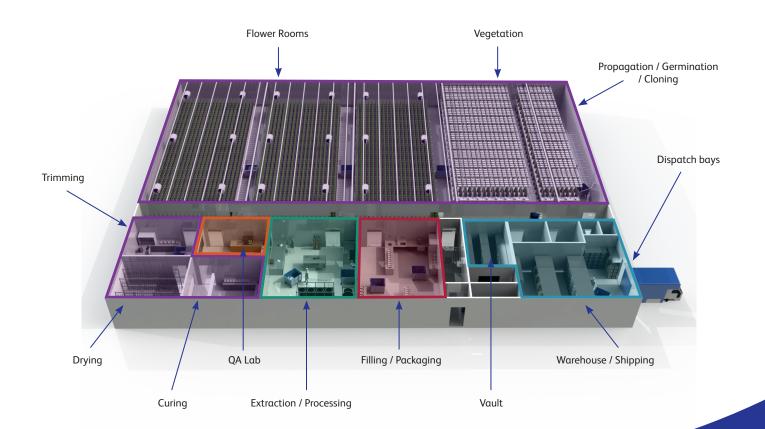
### **Knowledge that Provides Synergies**

Our strength and competence comes from application expertise, system engineering and field experience. The synergies derived from this combination are provided by Advanced Engineering Solutions for customers. Diversey experts will undertake a full study of your specific requirements.

We will design engineering solutions based on a deep understanding of your needs and a full analysis of the processes that affect the core areas of your business. Diversey's solutions are based on innovative, state-of-the-art processes that use the best and proven practices to create customized solutions, excellent hygiene standards and more efficient cleaning processes.

- Open Plant Cleaning (OPC)
- External Filler Cleaning (EFC)
- Cleaning in Place (CIP)
- Clean Out of Place (COP)
- Track Treatment
- Bulk Storage, Chemical Consumption
- Management & Chemical Room Design
- On-Site Biocide Generation
- Caustic Recovery





### **Engineering & Equipment**

### **Knowledge that Provides Synergies**

Our strength and competence comes from application expertise, system engineering and field experience. Diversey's

advanced engineering solutions are based on innovative, stateof-the-art processes that use the best and proven practices to create customized solutions, excellent hygiene standards and more efficient cleaning processes.

		Product Description	Flowering Rooms	Trimming Rooms	Cloning Rooms	Extraction Rooms	Sanitation Rooms	Facility / Utility Rooms
UV-C Sanitation Systems		Diversey's Aurora UV sanitation system introduces continuous sanitation, even during production. Two systems are available for air sanitation – ceiling bowels to be fitted in front of an existing fan and the forced air tunnel systems. UV lamps can be fitted inside existing air ducting or supplied with a fan incorporated to circulate air flow in an open environment. For surface sanitation, Aurora UV units are suspended over the area and products to be disinfected.		X	X			
Entryway control		Diversey's portfolio of entryway solutions prevent the risk of contamination. Diversey offers several levels of intervention: from sterilization baths to complete hygiene entrances.	X	х	х			
Hand Care	B • B •	Professional hand care made easy with Diversey's IntelliCare solutions. Offered as hybrid and manual, our innovative line of dispensers accomodate both liquid and foaming chemistries.	X	Х	X	X	X	
Fixed Sanitizer Fogging		Fully automatic, fixed fogging systems ensure repeat sanitation standards. Diversey fixed fogging systems include automated dilution and programmable fogging event options that allow for pre-set date and time to fog rooms, even if you are not there.	X					
Mobile Sanitizer Fogging		Foggers can help to make sanitizing environmental areas easier through distributing the sanitizer through the air by atomization. Cost efficient and ideal for smaller rooms, mobile fogging units are a great solution for operations that have several rooms that do not need to be fogged at the same time.		X	X			
Central / Decentral OPC	A To	Through Diversey's OPC solutions, facilities are able to optimize their cleaning process, unlocking 30% or more cleaning time and resource requirement.		X	х	X	X	
Mobile OPC		A flexible, cost efficient way to perform rinsing, foaming, and sanitation. Whether you choose the pneumatically driven, pressure-less manual foamer or the semi-automatic, boosted pressure Voyager, Diversey has the portable OPC option right for you.	X					
COP tanks		If equipment has to be taken apart in order to be cleaned, it can be Cleaned Out of Place (COP). Parts are placed into a large tank which circulates the detergent solution around the parts. These tanks utilize the same detergents used in CIP and can be manually operated or fully automated.					X	
Tunnel washer	0000	Rugged design, powerful jets and worker safe, Diversey's line of crate washers deliver consistent cleaning to even the most stubborn soils.					X	
Remote monitoring & Control		Diversey's portfolio of remote monitoring equipment allows for continuous online control, data logging and processed based evaluation. Alarms and error message sharing ensures that relevant management levels are notified automatically upon irregularities. Superior data collection provides clear evaluation and process improvement solutions. Systems are highly flexible and capable of monitoring many applications.						X

## **Cultivation - Extraction - Processing**

The cannabis industry starts with the right biologics! Diversey and our partners are there to ensure your most valuable assets are protected; seeds, mother plants and their clones.

Diversey protects your crop and yield by providing a complete environmental and on-plant infection control program.

Product	Product Description	Soil Disinfection	Seed & Clipping Disinfection	On-Plant Curative	Irrigation Water Treatment	Irrigation Tank & Line Cleaning	Irrigation Tank & Line Sanitizing	Potable Plant Water Treatment
Peragreen	Peracetic Acid for Agriculture. Water soluble, approved for use on organic crops with no visible residue.	X	X	X	X		X	
Fatsolve	Fatsolve cleaner is an alkaline foam suitable for use on soft metals. It is specifically designed for daily use in heavy duty cleaning applications in the life sciences and dairy industries.					X		
Benefit	Benefit detergent is a versatile, non-phosphated, low foaming chlorinated cleaner. Its primary use is in automated CIP systems to clean product equipment and lines. Excellent cleaning results are obtained in these systems using low concentrations. This product is excellent for CIP cleaning of bakery liquid fermentation systems. It can be used effectively in high pressure and foam cleaning systems with the use of foam additives.					X		
CLO <sub>2</sub>	EPA registered disinfectant with a very broad spectrum and aggressive antimicrobial efficacy.							Х

### **Extraction**

### **Partnering with Industry Leaders**

There are many methods of extraction used in the cannabis industry that require manual cleaning solutions from Diversey. Diversey has partnered with Advance Extraction System (AES) to provide the best extraction solutions on the market; supercritical  $\mathrm{CO}_2$  extraction. Supercritical  $\mathrm{CO}_2$  extraction is seen as the most beneficial method of extraction as it is fully scalable and produces a clean product. Through the creation of fully automated and integrated Clean-In-Place systems,

Diversey has further improved this technology by reducing the dependency for ethanol-based cleaning solutions, increasing safety and improving the equipment cleaning process. The combined expertise of Diversey and Advanced Extraction Systems ensures that you have access to the most advanced equipment in the industry with unparalleled service and expertise.



Sanitizing	Product Description	Extraction CIP	Loading Water Sensitiv Baskets Surfaces		СОР
Adept	Adept is a rapid kill, no rinse, highly evaporative surface sanitizer spray approved for direct contact. Ideal in water-sensitive areas, Adept is a combination of isopropyl alcohol and a powerful quaternary ammonium compound which kills 99.999% of detectable pathogens.	x			
Fatsolve	Fatsolve cleaner is an alkaline foam suitable for use on soft metals. It is specifically designed for daily use in heavy duty cleaning applications in the life science industries.		x		
SU® 393	$SU^{@}$ 393 sanitizer is a ready-to-use, broad spectrum, no rinse sanitizer with a wide range of applications in the life science industries.			x	
EasyWipe Disposable Wiping System	EasyWipe Disposable Wiping Systems provide the flexibility and ease to create customized cleaning wipes by simply adding the cleaner, disinfectant or sanitizer of your choice.			x	
Oxivir Wipes	One-step disinfectant cleaners based on proprietary AHP technology that delivers superior cleaning and disinfection performance while being safe to people, surfaces and the environment. Oxivir® TB has a sanitizing claim for soft surfaces.			X	
Diverspray <sup>®</sup> FP	Diverspray® FP is formulated for pan washing machines and pressure spray cleaning equipment in the life science industries. It is also well suited for cleaning plastic.				X

# **Processing**

A complete portfolio of solutions for your processing needs. Diversey's equipment and product offering is extensive. We ensure your specific needs are tailored to your facility and

equipment realities. This is the best way to ensure your quality goals are met with the best program for asset protection. Below is just an example of our core offering

Sanitizing	Product Description	Flowering Room Foaming / Sanitizing	Flowering Room Fogging Sanitizing	Flowering Room Manual Cleaning / Sanitizing	Dryer Room Fog Sanitizing	Trimming Room	Cloning Rooms	Sanitation Wet Rooms	СОР
Alpet D2	Alpet D2 is a rapid kill, no rinse, highly evaporative surface sanitizer spray approved for direct contact. Ideal in water-sensitive areas, Alpet D2 is a combination of isopropyl alcohol and a powerful quaternary ammonium compound which kills 99.999% of detectable pathogens.			x					
Aurora UV System	Aurora UV sanitation system introduces continuous sanitation, even during production, enabling increased shelf life for your product.						X		
Diverspray <sup>®</sup> FP	Diverspray® FP is formulated for pan washing machines and pressure spray cleaning equipment in the life science industries. It is also well suited for cleaning plastic.							X	X
Divosan <sup>®</sup> Plus	Divosan <sup>®</sup> Plus is a peracetic acid based, broad spectrum sanitizer. It is suitable for use in life science industries. Divosan Plus is completely non-foaming and sanitizes effectively at temperatures as low as 40°F.	x	X		x			x	
EasyWipe Disposable Wiping System	EasyWipe Disposable Wiping Systems provide the flexibility and ease to create customized cleaning wipes by simply adding the cleaner, disinfectant or sanitizer of your choice.			x		x			
EnduroSαfe	EnduroSafe cleaner is a soft metal safe, heavy duty chlorinated alkaline product designed for extended contact cleaning in a wide range of processing operations.	x						х	
Fatsolve	Fatsolve cleaner is an alkaline foam suitable for use on soft metals. It is specifically designed for daily use in heavy duty cleaning applications in the life sciences.	X				X		X	
Oxivir	One-step disinfectant cleaners based on proprietary AHP technology that delivers superior cleaning and	X							
Oxivir Wipes	disinfection performance while being safe to people, surfaces and the environment. Oxivir® TB has a sanitizing claim for soft surfaces.			Х					
Shureclean Plus	Shureclean Plus cleaner is a concentrated, neutral, high- foaming liquid detergent designed for general purpose application in the life sciences industry.	X							
Spectrum <sup>®</sup>	Spectrum <sup>®</sup> sanitizer is a quaternary ammonium concentrated neutral liquid providing effective bacteriological control.		X		X				
SU <sup>®</sup> 393	SU® 393 sanitizer is a ready to use broad spectrum, no rinse sanitizer with a wide range of applications in the food and beverage industries			x					
Viper™	Viper is a concentrated, no-rinse direct contact sanitizer, based on proprietary hydrogen peroxide (AHP®) technology.	X							
SoftCare	SoftCare hand hygiene solutions offer a range of general purpose, sanitizer and antimicrobial chemistries. Best in class efficacy, state-of-the-art onsite support and dermatologically tested formulations.	X	x	x			X		

### **Facility Solutions**

From our full janitorial chemical portfolio and safety gear to industrial size dishwashers and laundry systems, Diversey has the facility solution for any size operation. Diversey's line of steam boiler and irritation water treatment chemicals will ensure that your facility is operating at peak performance.

	Laundry	Dishwashers	Floor Scrubbers	Steam Boiler Treatment	Personal Care
Taski			X		
Perdiem			X		
Diverguard				X	
Smart Dose	Х	X			
SoftCare					X



### **Services**

### **Supporting your Processes**

Diversey adds value by providing a long-term partnership approach for process efficiency analysis, enhancing and improving operational excellence on site. With Knowledge Management, Diversey offers professional training, expert advice and consultancy to work closely with our customers on enhancements in engineering, chemical and knowledge based solutions.



### **Knowledge-Based Services**

Diversey's Management Information System analyses the correct use of products to provide real time data and reporting. Diversey Knowledge Based Services provide optimization, validation and traceability for the key hygiene processes within your facility. The result is a full data management service that will make a real difference to your business.

Using these tools, Diversey is able to add value to customers by providing knowledge and experience where it matters. Some Knowledge Based Services especially suited for the life sciences industry are:

- SteamCheck
- AquαCheck
- AirQualityCheck
- Hygiene Academy

For more information about Diversey ClearKlens please contact: pharma@diversey.com



Diversey's purpose is to protect and care for people every day. Diversey has been, and always will be, a pioneer and facilitator for life. We constantly deliver revolutionary cleaning and hygiene technologies that provide total confidence to our customers across all of our global sectors, including: cleaning products, systems and services that efficiently integrate chemicals, machines and sustainability programs. This makes us unique among leading global hygiene and cleaning companies. Everything we do has our customers' needs at its heart and is based on the belief that cleaning and hygiene are life essentials. With over 95 years of expertise, we safeguard our customers' businesses, contributing to productivity improvements, lower total operating costs and brand protection.

Diversey is headquartered in Fort Mill, SC, USA. For more information, visit www.diversey.com or follow us on social media.







