



AkzoNobel



# Purate<sup>®</sup> Worry-free Chlorine Dioxide<sup>™</sup>

eka

# Purate means worry-free chlorine dioxide.



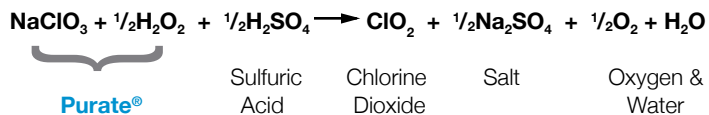
Chlorine Dioxide (ClO<sub>2</sub>) is an effective water disinfectant that can be applied anywhere that contamination from microorganisms occurs. It is a superior replacement for many common disinfection systems employed today including chlorine, bromine, bleach and organic biocides. As a dissolved gas it penetrates and removes biofilm without the need for additional treatment. ClO<sub>2</sub> is also effective over a broad pH range from 4-10. Plus, microorganisms do not build up resistance to ClO<sub>2</sub> and THMs are not formed in the disinfection process.

Chlorine dioxide is a powerful oxidizing agent that is used as a superior and cost-effective treatment for the following applications and many others:

- Drinking water disinfection
- THM reduction in drinking water
- Fe and Mn removal
- Cooling tower biocide
- Pulp bleaching
- Rendering scrubbers
- Odor control
- Ethanol production
- Ship ballast water treatment
- Phenol, cyanide, H<sub>2</sub>S destruction
- Food processing
- Wastewater treatment
- Paper machine slime control

## Worry-free chemistry

Purate is a unique stabilized solution of sodium chlorate and hydrogen peroxide. Eka Chemicals' SVP-Pure chlorine dioxide generator uses Purate and sulfuric acid to produce ClO<sub>2</sub> on-site that is easily piped to the point of application. No chlorine gas is used or produced in this process.



Purate is available for shipment in IBC totes, ISO containers and bulk from five production facilities worldwide and growing. Plus, Eka Chemicals works with a global distribution and service network of water treatment professionals so you can have the product when and where you need it.



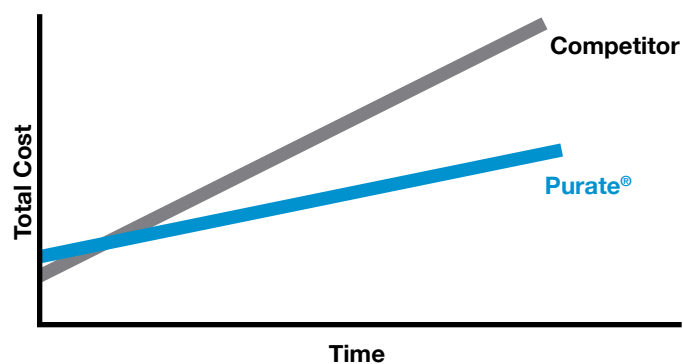
## Purate advantages

This innovative technology is a proven performer in industrial and municipal water treatment applications and offers a valuable range of important benefits that include:

- Chlorine-free  $\text{ClO}_2$
- 95% plus efficient
- Two-chemical process
- Safe and reliable  $\text{ClO}_2$  generation
- Best overall cost
- Global support

## Superior economic performance

The cost of operation is a total of equipment and chemicals. Purate provides ongoing cost savings every day.



## Product stewardship & safety

As a subscriber to Responsible Care®, Eka Chemicals considers safety to be paramount, and it shows in our products and services.

- Rugged industrial cabinet provides full enclosure
- Heavy duty, high quality components
- Documented Process Hazard Analysis
- Special unloading connection for bulk Purate
- Multiple interlocks to safeguard process integrity
- Complimentary annual site audits

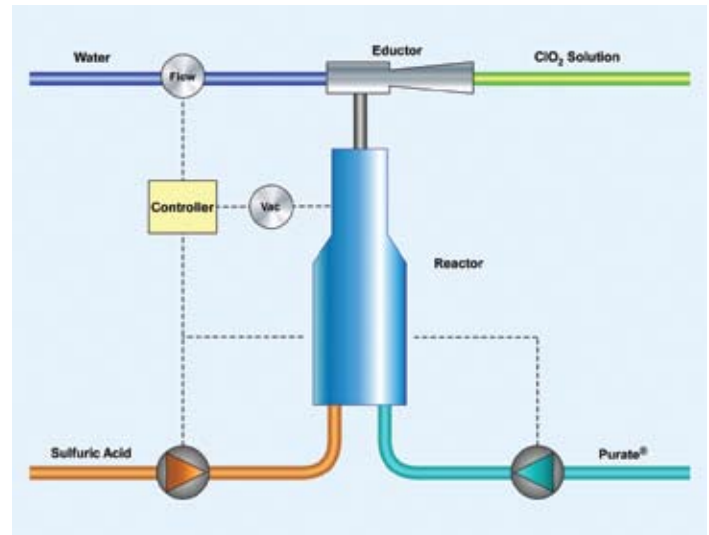
# Which SVP-Pure<sup>®</sup> generator is right for your ClO<sub>2</sub> application?

## BD models

BD models utilize solenoid type metering pumps, a basic PLC to monitor interlocks, local indication for instruments and require 78% sulfuric acid.

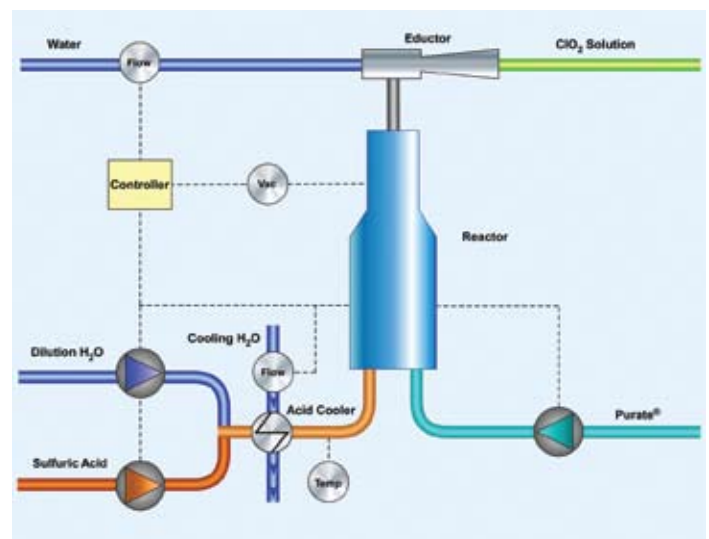
## AD models

AD models utilize solenoid or mechanical metering pumps, an advanced PLC and touch screen to control operation and monitor interlocks and require 78% sulfuric acid.



## MSA models

MSA models utilize solenoid or mechanical metering pumps for Purate and acid, an advanced PLC and touch screen to control operation and monitor interlocks, a sulfuric acid dilution and cooling system and accept sulfuric acid concentrations up to 98%.



## DS models

A distribution skid (DS) is an option as an add-on or an integral component for AD and MSA generator models. A distribution skid allows chlorine dioxide solution to be distributed to multiple points directly from the discharge of the generator, thus avoiding a storage tank system. The distribution skid incorporates a ClO<sub>2</sub> solution pump and flowmeters and control valves to manage the distribution among various points.



## Model overview

| SVP-Pure Generator Models |                   |  |                    |  |                     |                                     |  |
|---------------------------|-------------------|--|--------------------|--|---------------------|-------------------------------------|--|
| Model                     | Advanced Controls | ClO <sub>2</sub> Capacity kg/day (lb/day)* | Acid Concentration | Dimensions H x L x W                         | Weight              | Electrical                          | Water Use @ 10 bar/145 psig*                 |
| <b>BD</b>                 | –                 | 288 (635)                                  | 78%                | 1980mm x 1120mm x 610mm<br>78" x 48" x 24"   | 545 kg<br>1200 lbs. | 115 or 230 VAC,<br>1Ph, 20A service | 1.4 – 14.8 m <sup>3</sup> /hr<br>6 – 65 gpm  |
| <b>AD</b>                 | Yes               | 2160 (4760)                                | 78%                | 2150mm x 1900mm x 1400mm<br>85" x 75" x 55"  | 685 kg<br>1510 lbs. | 115 or 230 VAC,<br>1Ph, 20A service | 1.4 – 29.5 m <sup>3</sup> /hr<br>6 – 130 gpm |
| <b>MSA</b>                | Yes               | 1680 (3700)                                | 78-98%             | 2150mm x 2600mm x 1400mm<br>85" x 102" x 55" | 950 kg<br>2095 lbs. | 115 or 230 VAC,<br>1Ph, 20A service | 3 – 34 m <sup>3</sup> /hr<br>13 – 150 gpm    |
| <b>DS**</b>               | Yes               | 600 (1323)                                 | 78-98%             | 2150mm x 1900mm x 1400mm<br>85" x 75" x 55"  | 775 kg<br>1710 lbs. | 480 VAC, 3Ph,<br>30A service        | 3 – 9 m <sup>3</sup> /hr<br>13 – 40 gpm      |

\*Dependent on eductor selection    \*\*5.5 bar (80 psig) compressed air required

Model options and sizes may vary in different regions.

# Technology features and controls

## Globally accepted

- CE certified
- EPA registered
- FDA approved
- BfR approved
- Kosher (OU) certified
- NSF 60 and 61 certified
- EU BPD and REACH (pending)

## Remote monitoring

SVP-Pure technology offers optional remote monitoring or full remote control. Safety interlocks and operational parameters can be monitored from any location. Let one of our Technical Specialists help you determine which system is best for you.



## Custom designs available

Need a custom solution? Our engineers can design an SVP-Pure system specifically to meet your requirements.

Custom solutions include:

- Turnkey engineering and installation
- Independently controlled multiple treatment points from a single generator
- Multiple generators from a single control station
- Custom instrumentation for monitoring and control
- ATEX certified for refineries
- Marine grade for saltwater applications



## What customers say about Purate

“The SVP-Pure generator is very reliable and easy to install and operate.”

“The support from Eka’s technology group was great.”

“We saved a significant amount of money by switching to Purate.”

“Your Responsible Care® program is one of Eka’s best assets.”

“We chose Purate because of its high efficiency.”

“We safely monitor multiple generator sites from a single control room.”

## Worry-free ClO<sub>2</sub> from Eka Chemicals

As the world’s largest manufacturer of chlorine dioxide chemicals, we provide unparalleled technical and product support to our customers and can easily deliver directly to any customer site worldwide from our multiple production facilities.

To learn more about Purate, email [info@purate.com](mailto:info@purate.com) or visit our web site at [www.purate.com](http://www.purate.com).



A progressive force in bleaching and paper chemistry, Eka Chemicals and its 2,900 employees serve the pulp and paper, water treatment and select other industries from offices and plants in 30 countries.

Eka Chemicals forms a business unit within AkzoNobel, a corporation with more than 61,500 employees worldwide. AkzoNobel is proud to be one of the world's leading industrial companies. Based in Amsterdam, the Netherlands, we make and supply a wide range of paints, coatings and specialty chemicals. As a major producer of specialty products we supply industries worldwide with quality ingredients for life's essentials. At AkzoNobel we are committed to excellence and delivering Tomorrow's Answers Today™.

Purate is part of the specialty products group within Eka Chemicals and is the result of more than 40 years experience designing, building and operating chlorine dioxide systems in more than 50 countries worldwide.

Our promise is to deliver a consistently high quality product to every customer, whether they are large, small or specialized users or distributors. Plus, our flexible production facilities and processes mean that you get what you order on time to help your business achieve optimal performance.

[www.akzonobel.com/eka](http://www.akzonobel.com/eka)  
[www.purate.com](http://www.purate.com)

Eka®, Purate® and SYP-Pure® are trademarks of Eka Chemicals and registered in some countries worldwide.



**eka**

#### North America

Global Purate Headquarters  
 Eka Chemicals Inc.  
 1775 West Oak Commons Ct.  
 Marietta, Georgia 30062  
 Phone: +1 770 321 7700  
 Fax: +1 770 321 5847

#### South America

Eka Chemicals do Brasil SA  
 Rod. Dom Gabriel P. B. Couto km 65,2  
 13212-240 Jundiá SP Brasil  
 Phone: +55 11 4589 4800  
 Fax: + 55 11 4582 7074

#### Europe

Eka Chemicals AB  
 SE-445 80  
 Bohus, Sweden  
 Phone: +46 31 58 70 00  
 Fax: +46 31 98 09 10

#### Asia

Eka Chemicals (Suzhou) Co., Ltd.  
 302 Su Hong Middle Road  
 Suzhou Industrial Park  
 Suzhou City 215122  
 Jiangsu Province P. R. China  
 Phone: +86 512 62582276