

# CENTAUR® HSL 8x30 Granular Activated Carbon



CALGON CARBON CORPORATION

## Description

CENTAUR® HSL is a liquid phase virgin activated carbon that has been manufactured to enhance catalytic functionality. The product is unique in that it concentrates reactants via adsorption and then promotes their reaction on the surface of the carbon pores. CENTAUR® HSL is produced from bituminous coal using a patented process. Although it is not impregnated with transition metals or alkali, CENTAUR® HSL displays the catalytic function of impregnated materials but does not present a disposal problem. CENTAUR® HSL provides a combination of low pressure drop, moderate kinetics, and good resistance to attrition. Thermal reactivation is an option for recycling and reuse of this product. This minimizes operating costs and eliminates disposal concerns.

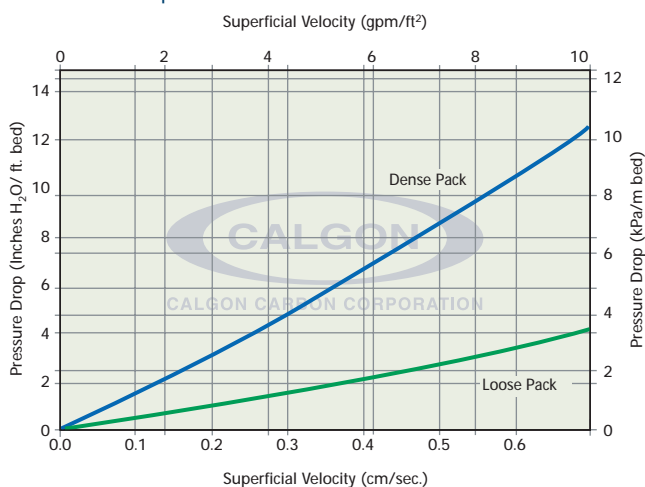
## Applications

CENTAUR® HSL can be used in liquid phase applications for the promotion of oxidation, reduction, decomposition, and substitution reactions. Common applications are H<sub>2</sub>S oxidation to sulfate, and taste and odor removal in groundwater and surface water. It can also be used to prevent H<sub>2</sub>S corrosion in pipes and pumps.

## Specifications

Iodine Number	825 mg/g (min)
Ash by weight	7% (max)
Moisture, as packed by weight	4% (max)
Apparent Density	.55 g/cc (max)
Peroxide Number	19 (max)
Screen Size by weight, U.S. Sieve Series	
On 8 mesh	15% (max)
Through 30 mesh	4% (max)

## Pressure Drop Curve



## Design Considerations

### For VOC and Taste & Odor Removal

CENTAUR® HSL can be used in either groundwater or surface water treatment applications to remove organic compounds. The recommended contact time is 8-15 minutes. Consult a Calgon Carbon Corporation Technical Sales Representative for advice about the proper contact time for your application.

### For H<sub>2</sub>S Removal\*

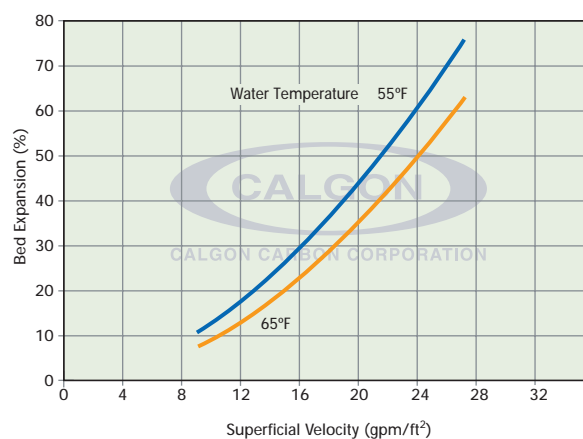
CENTAUR® HSL is intended primarily for use in liquid phase systems to promote catalytic reactions. With oxidation reactions like H<sub>2</sub>S to sulfate, the carbon can be used in a number of configurations with required contact times of 3 minutes or less. The reaction rate is application specific and has a direct bearing on the Empty Bed Contact Time required. The backwashed and drained density of the product is typically 30 lb./ft<sup>3</sup>. CENTAUR® HSL requires a minimum dissolved oxygen concentration of a two-to-one ratio with the H<sub>2</sub>S concentration.

\* Purchase of this product from Calgon Carbon Corporation includes a license under the following U.S. Patents: Numbers 5356849 and 5494869.

## Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State requirements.

## Backwash Curve



# CENTAUR® HSL 8x30 Granular Activated Carbon



## Features

## Benefits

Catalytic activity	Smaller system size due to faster reaction kinetics. Lower capital equipment requirements.
Thermal reactivation option	Eliminates disposal concerns.
Improved trace organic capacity	More capacity per unit volume which translates to lower carbon use rates resulting in reduced system operating costs.
High hardness	Reduced fines from attrition over operational life of carbon which equates to reduced power consumption.
Works at low oxidant levels	Wide applicability which eliminates the need for chemical addition.
Simple equipment design	Reliable CENTAUR® HSL handles spikes in concentration, without chemical additions.
Enhanced performance	Achieves greater degree of contaminant (VOCs & odor compounds) removal at reduced costs.



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