

# VISTA COMBUSTION CATALYST

A Combustion Aid for Fossil and Agro Fuel

## **Description:**

VISTA COMBUSTION CATALYST (VCC) is an innovative chemical. When added to coal (peat, lignite, bituminous), coke or agro fuels – Bagasse, rice husk, jute waste. It helps in proper burning to explore maximum heat value of fuel reduces ash deposition and fouling of boiler tubes, hot air duct, chimney etc.

VCC catalyses the combustion by generation of active oxygen which accelerates oxidation of carbon, hydrogen, hydro carbon, and cellulosics. This results in complete combustion and increase in heat output per unit of fuel burnt. When optimized saving in fuel consumption economises fuel bill to the extent of 10-20%. As coal deposit is fast depleting saving not only preserves resources but reduces emission of green house gases (Co2, NOx, Sox) responsible for global warming. In addition use of VCC reduces burn-out, devolatalization, slagging and fouling of combustion units of all types operating with coal & other solid fuels.

#### **COMPOSITION**

VCC is based mainly on manganese salts supported by activator (promoter)

# Chemistry of combustion

When solid fuels are burnt, the moisture reacts with carbon to generate valuable CO (carbon monoxide) and hydrogen. The burning of the former gases is made fast by VCC. The fixed carbon (C) and volatile hydrocarbons require sufficient supply of oxygen from air. Since air is composed of only 21% oxygen and 79% nitrogen (inert gas). The active oxygen produced by VCC in-situ. Catalyzes the system. The Oxidized atmosphere is generate by reduction of manganese compounds

 $Mn+7 + 5e \rightarrow Mn+2$ ,  $Mn+4+2e \rightarrow Mn+2$ 

# **Technical Specification**

Appearance Brown-grey liquid Specific Gravity 1.20 +/- .05

### Dosage:

Usually 0.5% by the weight of coal, For 1 ton of coal, burnt, 5 kg VCC is to be mixed with charge.



### Advantage:

- o Reduces stock soot emission (air pollution)
- o Reduces un burnt carbon in ash
- o Reduces corrosion of coal burner (pulverized firing system)
- o Enhances carbon-oxygen reaction
- o Increases output of kilns, furnaces, boilers
- o Better heat conduction improved burning results in coal saving (10-20%) irrespective of firing system / pulverized or otherwise.
- o Cleans the system removing unwanted residues
- o Minimizes work rate of blower and suction fans (power saving)
- o Enhances boiler life by reducing corrosion of met allies and refractories, fouling (deposition on convection heat surface, e.g. super heaters and reheaters)

### Method of application:

### Other than pulverized system of firing:

The liquid catalyst can be conveniently spread over the coal charge (nut, breeze or lump) @ 0.5% by weight of coal manually.

#### Pulverized system of firing:

For thermal power or other industries operating on pulverized coal firing, a dozer machine has to be installed to dose the catalyst either at pulverizer end or on conveyor.

#### Area of use:

Brick field \* Sugar mills \* Textile Processing \* Confectionaries/ Condiments \* Glass Melting \* Cements Kilns \* Refractories/ ceramic \* Teas/Coffee \* Manufacture \* Producer/water gas generator \* Metallurgy-smelting in Culpa, etc

**Shelf life:** Best before 1 year in packed condition

7/1B, Grant Lane, Kolkata – 700 012, (INDIA)

T: +91 33 2237 9394 / 2236 0469 / 2215 5513

**Storage:** To be stored in dry condition under shade. Should not come in contact of flame or fire

#### NOTE:

The contents of the technical data sheet are for general information and guideline only. Results shown here are generated from our laboratory or from our site experiences. This behavior may change as per prevailing condition at the time of application.

VISTA maintains a team of technical trained professional to provide full support in regards to any of our products

Manufactured & marketed by

# VISTA CHEMTECH PVT. LTD.

(An ISO 9001 Certified Co.)

A SURANA GROUP OF INDUSTRIES

#### Corporate Office:

PO - Jalabishwanathpur, Amta

Works:

Howrah - 711 322

F: +91 33 2237 9394

**E**: vista@asuranagroup.com; **W**: www.asuranagroup.com; **S**: asuranagroup

Ankleshwar Balasor Gangtok Howrah Kolkata