O_3one

and applications
in
Tea Industry

OZONEPEDIA.COM
OXYZONETHERAPY.COM

Using applications in business – see the slides

- Discovered as a natural gas two hundred years ago
- Protects mother Earth by a thick layer few thousand miles above
- Strongest known disinfectant and oxidant
- Unstable but does not leave any toxic residue
- Nominal cost of production in abundance

  – No risk on human being if maintained under stipulated level

Ozone Basics

- Created naturally and continuously in nature by lightning, thereby supplementing the ozone loss (ozone hole) created by environmental pollution
- Strong electrical fields disturb the oxygen structure and some single atom is attached to normal oxygen to create Ozone
- Ozone is thus just an unstable allotrope of oxygen with three atoms in a molecule

What is Ozone?

- Ozone is enriched oxygen and is nature's own powerful generator. The many possibilities for using ozone are due to its oxidizing and germicidal properties.
- Ozone kills micro-organisms by breaking down their protein structure. It neutralizes bacteria, viruses, moulds, fungi, yeasts, mildew, amoebae and algae, including pathogenic and non-pathogenic germs.
- Ozone also deodorizes many organic and inorganic odours, both gases and small particulate. It does this by a process of oxidation, permanently converting the odour into water vapour, and other compounds such as carbon dioxide.

What is Ozone?-contd

- Ozone has a very high Redox potential, being 1.5 times more reactive as an oxidizer than chlorine. It also reacts 3500 times faster than chlorine with organic material such as bacteria and viruses.
- Ozone leaves no chemical residue as ozone rapidly decomposes back into oxygen. Since it is generated on site, the safety problems associated with liquid disinfectant storage, handling and transportation are nullified.

EXTRA ORDINARY PROPERTIES

- Ozone is found to be more than 3000 times stronger as a disinfectant than chlorine
- Is 5.5 times stronger as an oxidizer than pure oxygen

  - Using these two properties, Ozone is most effective aerial sterilizer, water disinfector, deodorizer, smoke suppressor, oxygen enhancer in percentage

Broad industrial Applications

In Air	In Water
HVAC	Mineral Water
Hospitals	Effluent treatment
Public places	Sewage Treatment
Hotels	Textile bleaching
Public kitchens	Paper bleaching
Air Pollution	Swimming Pool
TEA FERMENTATION	Aquaculture

Applications in TEA

OZONEPEDIA.COM
OXYZONETHERAPY.COM

waterhouse

Basics

Ozone has a typical technical advantage in improving the fermentation of the tea. Increasing the oxygen at the time of fermentation is all the more essential. Therefore air is blown now at a high rate through funnels at the bottom of the slowly moving table with tea leaves on it, to force oxidise the tea. It is understood that the prime purpose is to provide as much oxygen within the limited time

Further

Ozone is an allotrope of oxygen with no other toxic or foreign molecule attached to it

Its oxidising capacity is more than 5.5 times that of oxygen

Normally, air is blown at CFM, containing only 19% humid oxygen

Therefore if air is mixed with Ozone, oxidation potential increases substantially

Ferment TEA by Ozonated Air Only

OZONEPEDIA.COM
OXYZONETHERAPY.COM

Study Reveals

- Within an hour of slow fermentation with ozone, the strength of liquor improves noticeably
- Original flavour is not disturbed
- Enzymatic values are fully retained
- Hidden pests and toxicities are summarily destroyed

Calculations

Standard 10,000 CFM Blower

According to studies, a 50 GPH air feed system is required.

Power consumption: 800 watts

Accessories: 1 HP air compressor

Get in Touch

- DENMARK : Birkhøjvej 7, 2800 Kongens, Lyngby Copenhagen.
- AUSTRALIA : Nysha Trust, 28 McKee Crescent, Mango Hill, 4509 Brisbane.
- SOUTH AFRICA : 16 Andries Pretorius Drive, Eastleigh Edenvale, Gauteng, Johannesburg – 1609.
- INDIA : C2/23 G L Roy Rd, S M Nagar Sarkarpool, Kolkata - 700143.

Mail : office@teamwaterhouse.com

OZONEPEDIA.COM
OXYZONETHERAPY.COM